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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

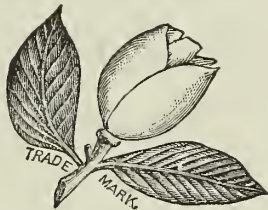
VOLUME XIII. }
NUMBER I.

TORONTO, ONT., JANUARY, 1892

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THE MAGNOLIA ANTI-FRICTION METAL CO.
74 Cortlandt Street, New York, N.Y.
NEW YORK, N.Y., March 5, 1891.

GENTLEMEN.—About March 26, 1890, samples of metal marked "Spooner's Finest Copperine Babbit" were submitted to me for test; its test showed finest results, and on analysis, it proved to contain no copper, and approximated the formula of Magnolia Metal.

In October of the same year other samples with same marks were submitted for test, and tested in comparison with Magnolia Metal, upon our new testing machine, built at great expense. This test for temperatures showed Magnolia Metal to have less friction and a temperature of about 100 degrees less. On December 31st this perfected test piece of Copperine was tested again with the result of its fusing with ten minutes run of 1600 pounds to the square inch.

On January 31st Magnolia Metal was tested, which ran fifteen minutes with 1800 lbs. to the sq. inch, and one hour with 2000 lbs. to the sq. inch, and at the end of the hour the metal showed a temperature of 200 degrees Fahrenheit. Under separate cover we hand you detailed reports of the tests, showing velocity of rubbing surface about 2000 feet per minute, diameter of shaft 5 inches, and revolutions about 1500.

Yours truly, H. G. TORREY.

NOTE.—Mr. Torrey is U.S. Assayer, and has been in U.S. Mint service at New York for 30 years.

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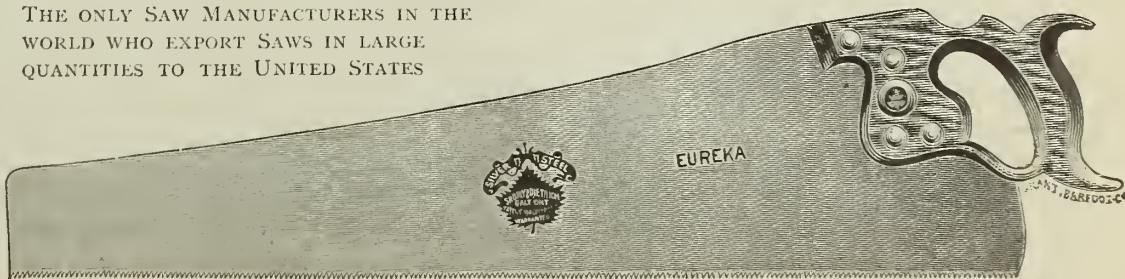
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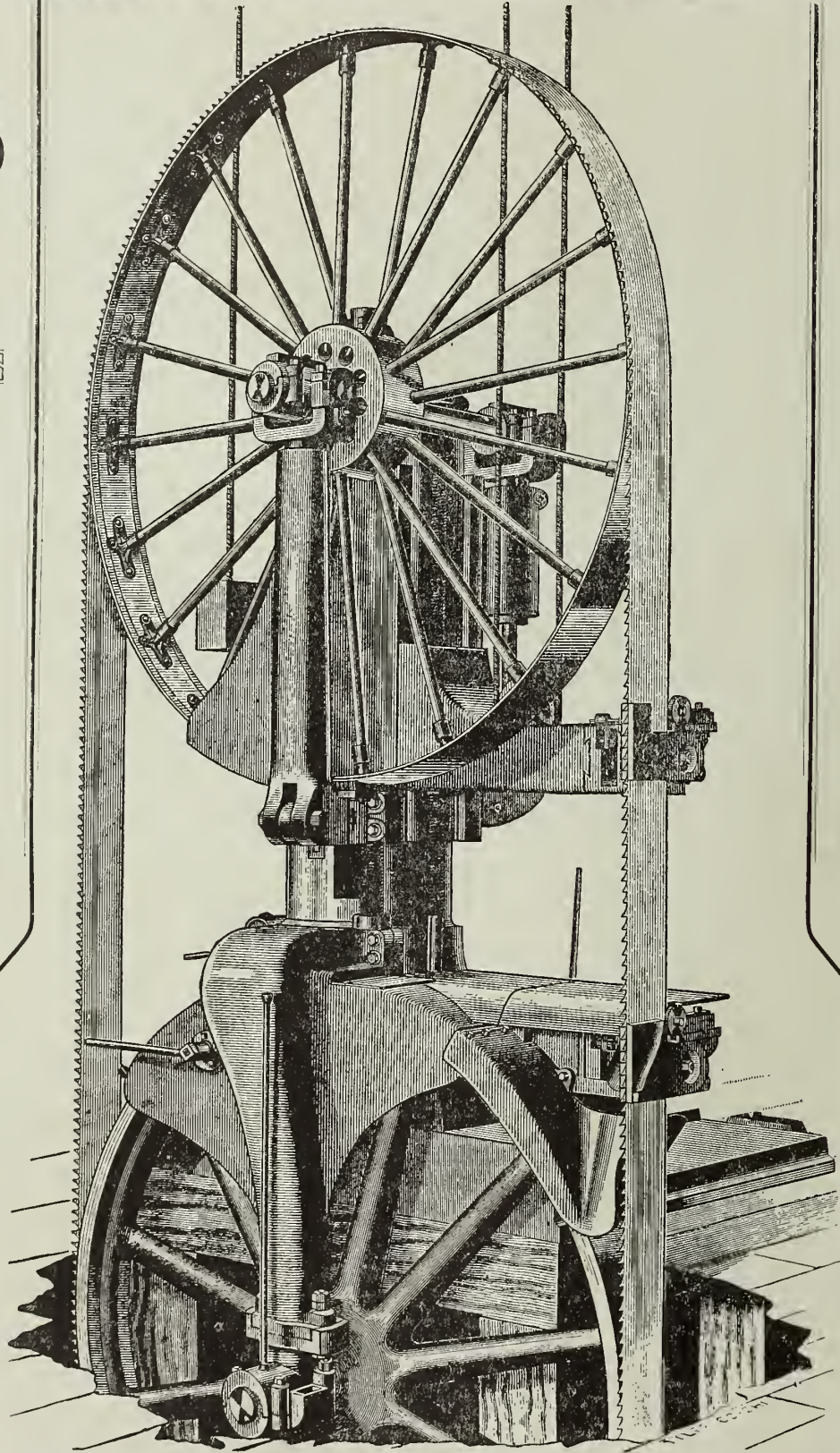
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This is to certify that the Wm. Hamilton Manufacturing Company, Limited, of Peterborough, Ont., have been licensed to manufacture and sell throughout the Dominion of Canada the Band Saw Mill known and called the "Prescott Patent Band Mill," also the device for Saw Mill Carriage known as the "Prescott Patent Offsetting Mechanism," and by virtue of said license the said Wm. Hamilton Manufacturing Company possess the exclusive right to build and sell said machines for Canada, the plans for said machines being furnished or approved by the undersigned.

(Signed)
 D. CLINT PRESCOTT,
 (Copy) Patentee

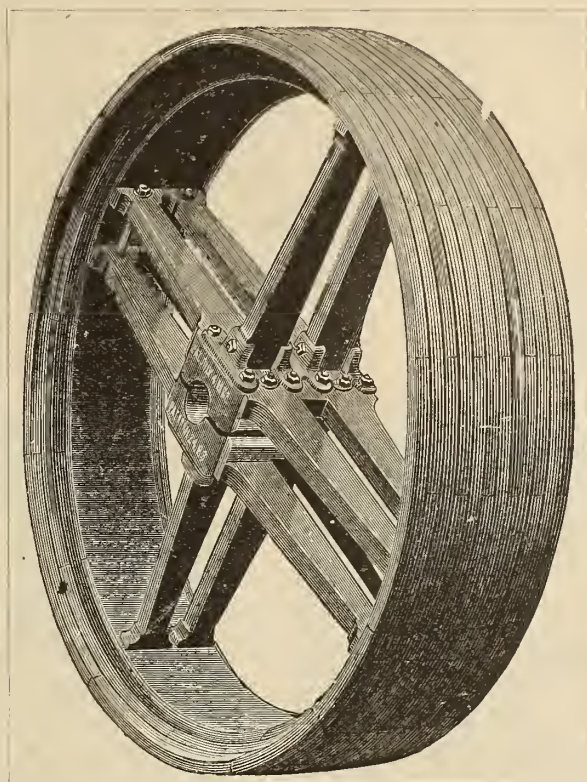
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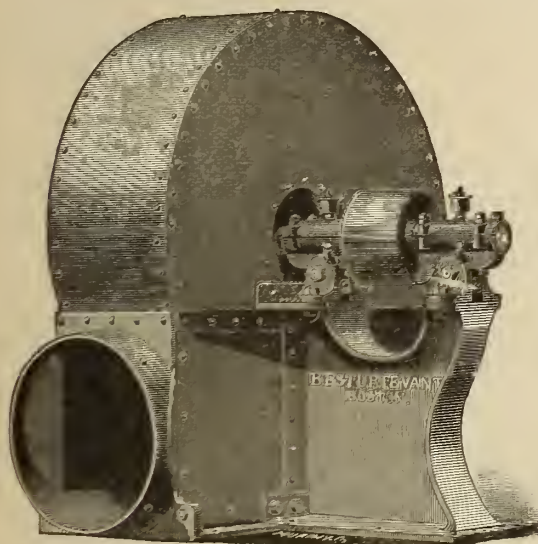
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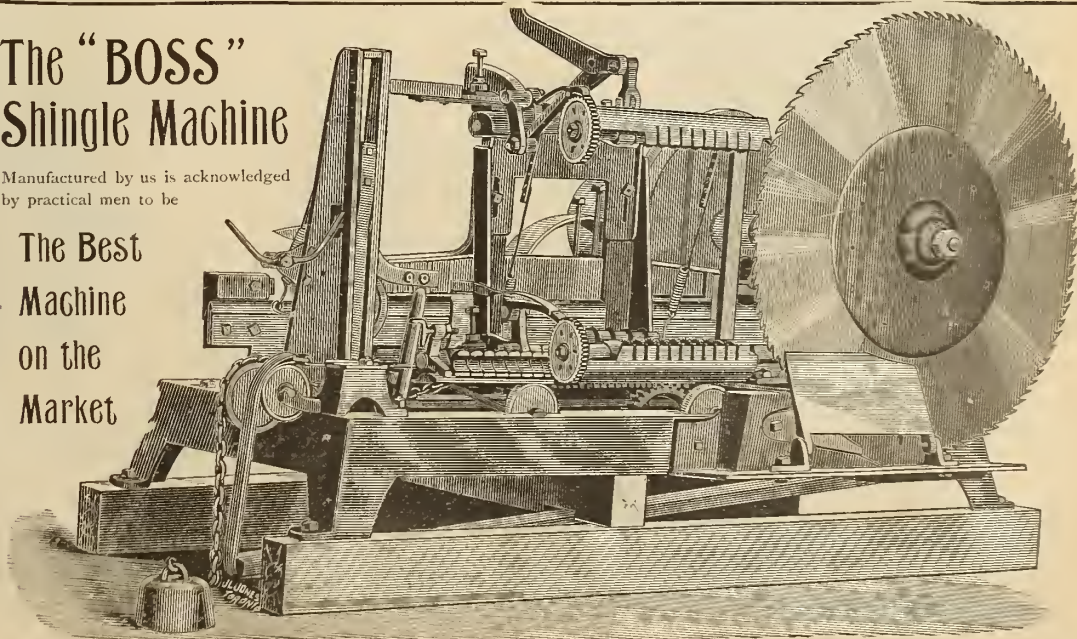
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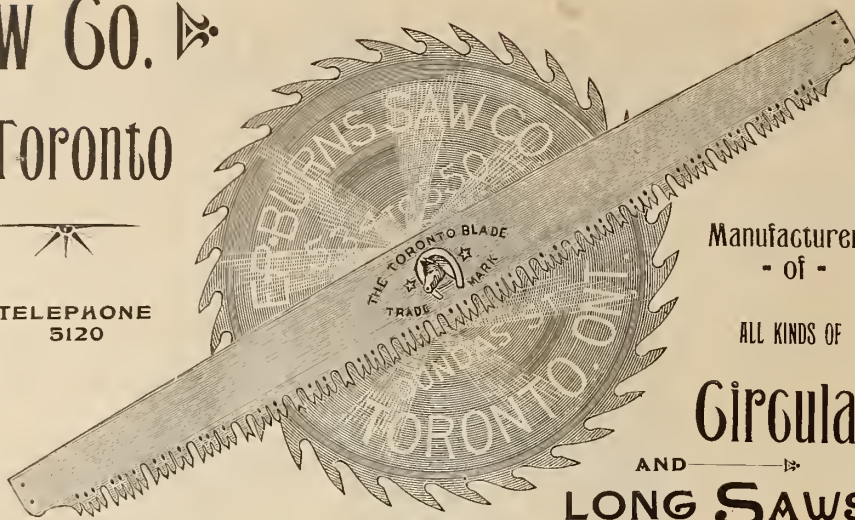
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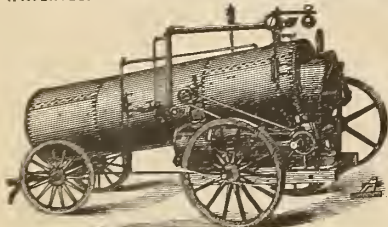
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Specially Designed for the Pacific Coast

No. 4 Extra Heavy Saw Frame

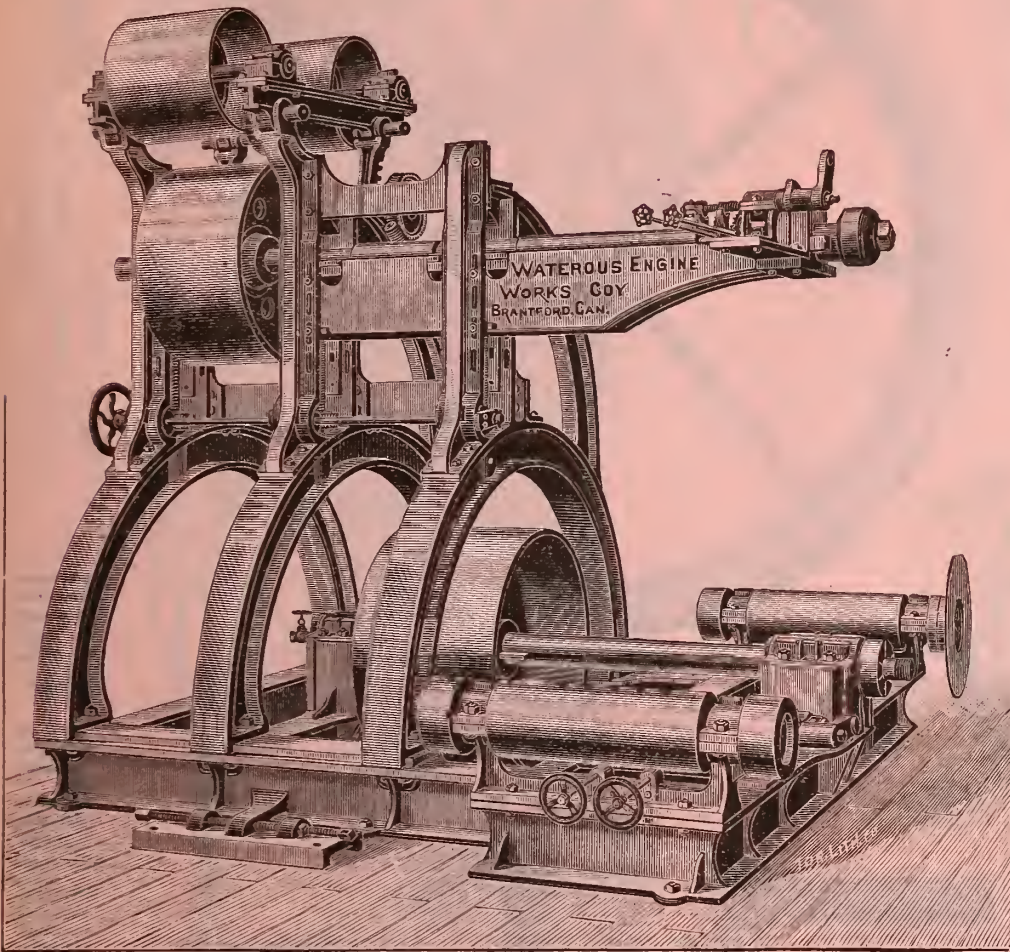
Cast solid, strongly ribbed and braced to stand the most severe work. It is provided with means for adjustment after being fixed to foundation.

The Mandrel is of forged steel 5 inches in diameter, and runs in long hollow air-space boxes; has an inch hole bored through it lengthwise to permit of cooling or lubricating liquid being forced on the saw. Pulley 36 in. by 21 in. face, webbed centre.

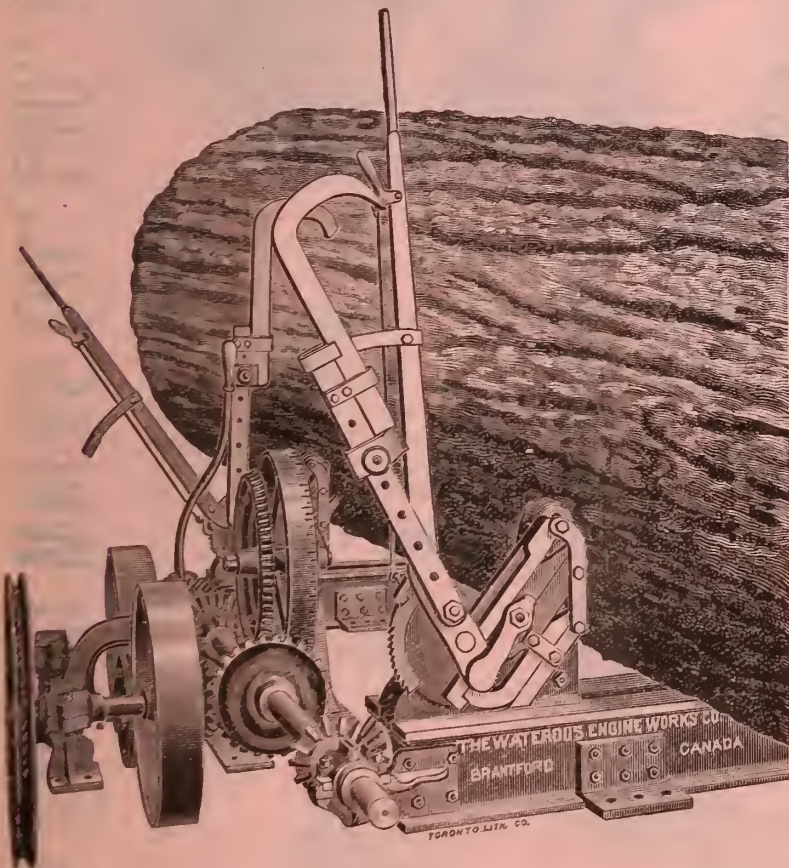
Top Saw Attachment is supported on arched brackets resting on cross braces of frame. Mandrel is 4½ in. forged steel, and has a great range of adjustment to lower saw. Pulley 30 in. x 17 in., webbed centre. Adjusting screws at each end of mandrel are worked simultaneously by one hand wheel, ensuring perfectly parallel adjustment.

Tightner Frame Pulleys 18 in. by 17 in. face. The Frame admits a 72 in. lower and 72 in. upper Saw. It has no carriage feed attachment, being designed for steam feed.

Space occupied, 9 ft. 2 in. by 9 ft.; weight about 7 tons.

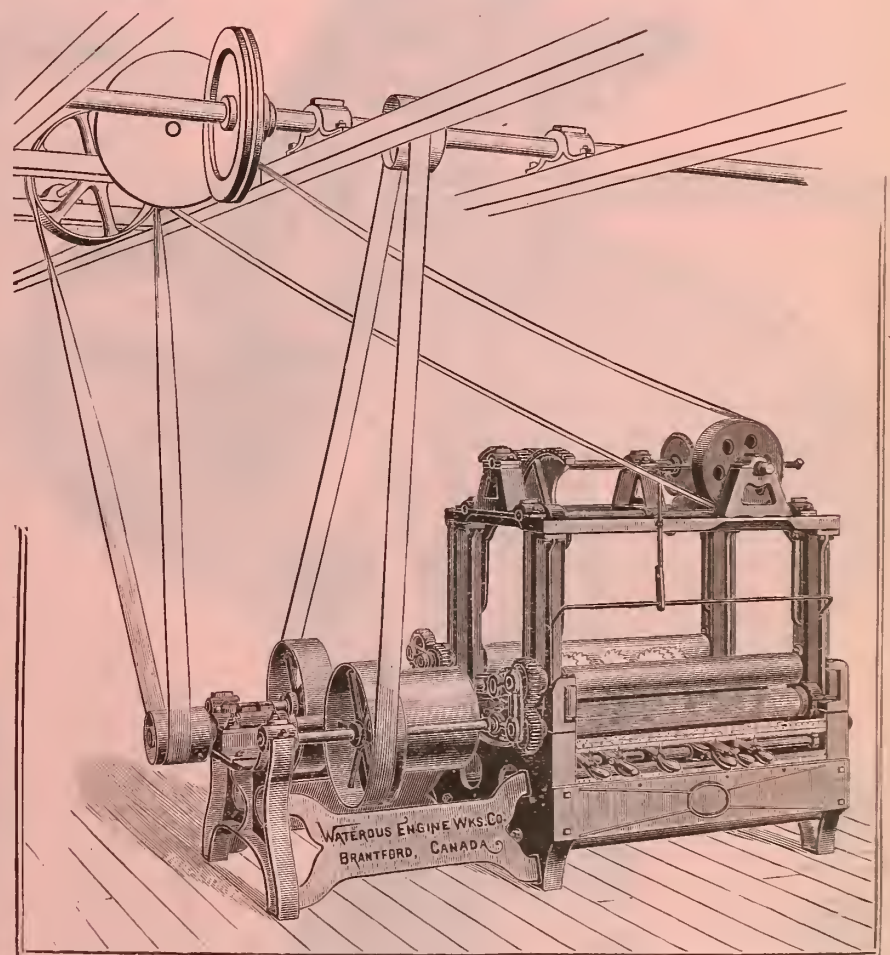


Correspondence solicited from parties contemplating the erection of new mills or alterations to existing plants.



NO. 6 GIRDER STEEL SAW CARRIAGE

Made to open 66, 72 and 84 inches from saw. Carriage is made entirely of rolled, forged and cast steel, furnished with powerful lever set or power cable set as shown. Double spud dogs shown are specially adapted for handling large timber.



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Made to cut cants 50 in. and 60 in. wide and up to 9 in. thick. All rollers driven; upper rollers adjusted by independent power attachment. Saws 24 in. to 26 in. diameter held by steel collars and brass safety guides. Mandrel is 4½ in. steel running in 3, 12 in. boxes, with movable bridgetree for quick removal of saws.

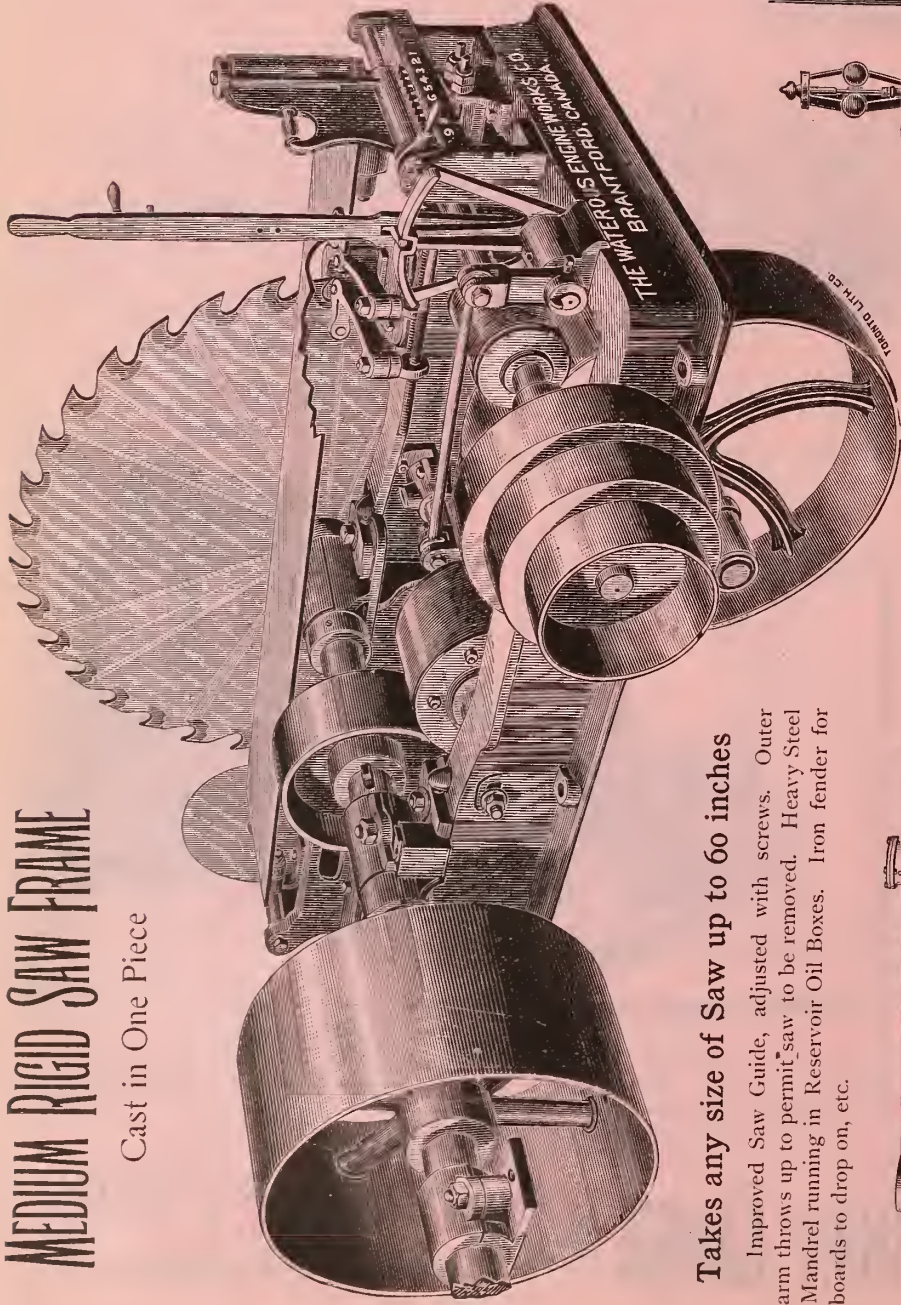
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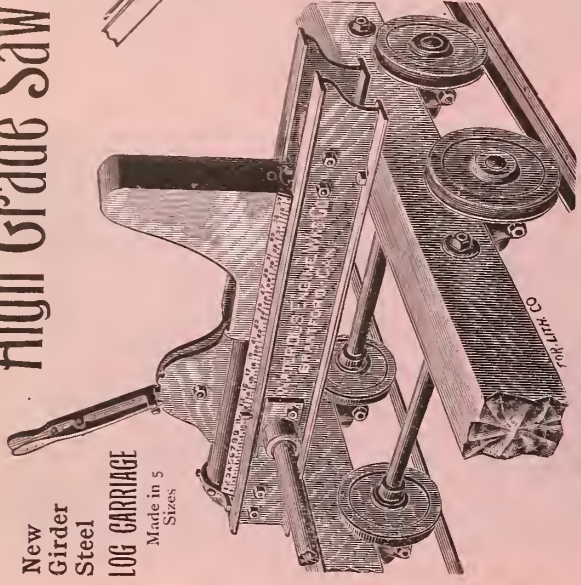


Takes any size of Saw up to 60 inches

Improved Saw Guide, adjusted with screws. Outer arm throws up to permit saw to be removed. Heavy Steel Mandrel running in Reservoir Oil Boxes. Iron fender for boards to drop on, etc.

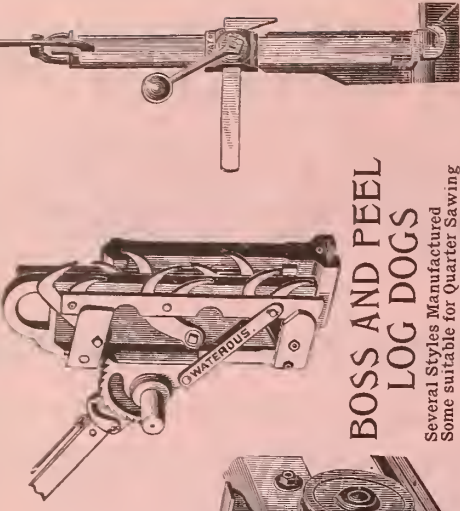
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New Girder Steel LOG CARRIAGE Made in 5 Sizes

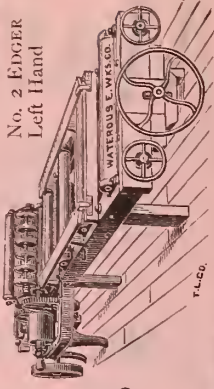


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Several Styles Manufactured Some suitable for Quarter Sawing

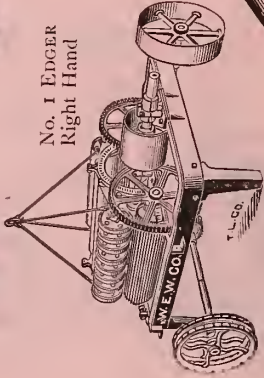


No. 2 EDGER Left Hand



GANG EDGERS

using 3 or more Saws



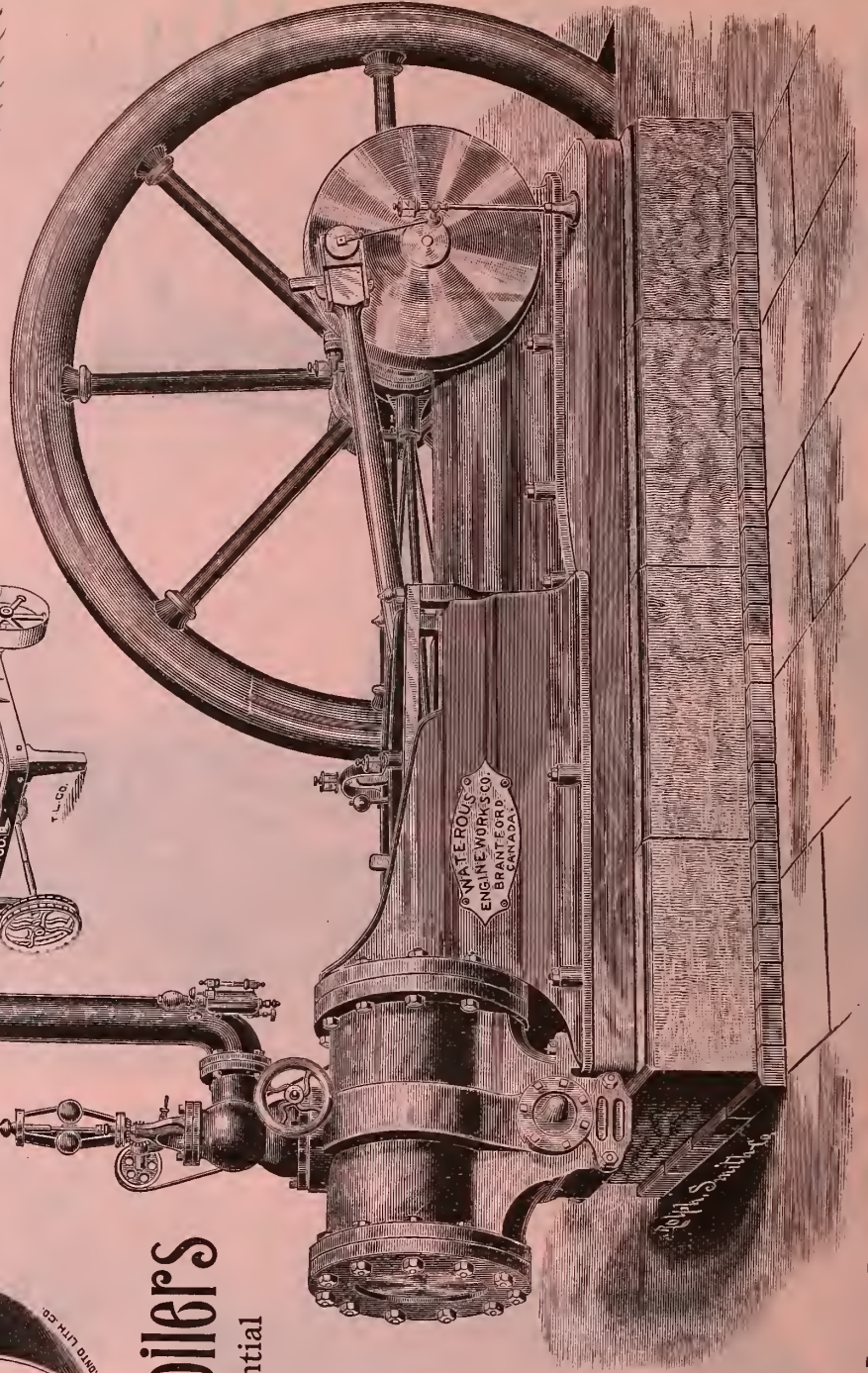
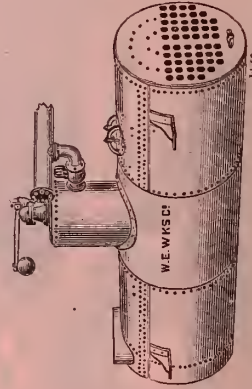
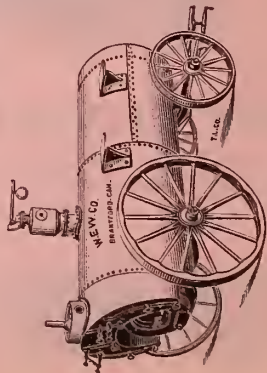
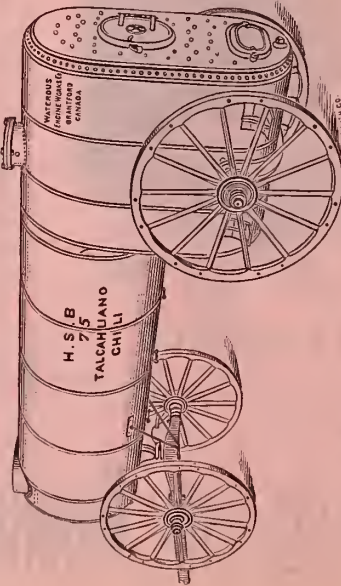
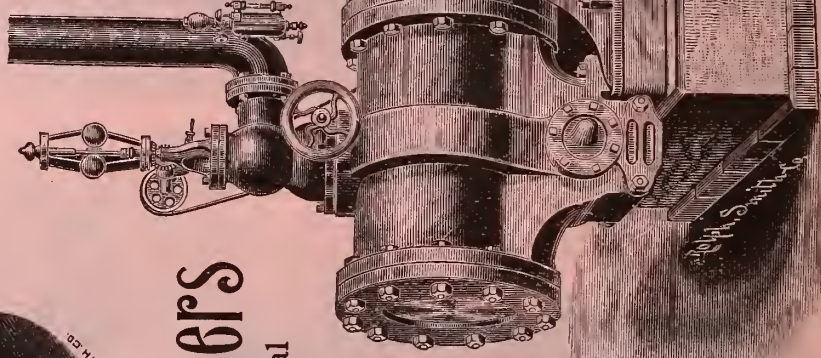
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THE CANADA LUMBERMAN

VOLUME XIII. }
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TORONTO, ONT., JANUARY, 1892

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DICKENS IN CAMP.

ABOVE the pines the moon was slowly drifting,
The river sang below ;
The dim Sierras far beyond uplifting
Their minarets of snow.
The roaring camp-fire, with rude humor, painted
The ruddy tints of health
On haggard face and form that drooped and fainted
In the fierce race for wealth.
Till one arose, and from his pack's scant treasure
A hoarded volume drew.
And cards were dropped from hands of listless leisure
To hear the tale anew.
And then, while round them shadows gathered faster,
And as the firelight fell,
He read aloud the book wherein the Master
Had writ of "Little Nell."
Perhaps 'twas boyish fancy—for the reader
Was youngest of them all—
But, as he read, from clustering pine and cedar
A silence seemed to fall ;
The fir-trees, gathering closer in the shadows,
Listened in every spray,
While the whole camp with "Nell" on English meadows,
Wandered and lost their way.
And so in mountain solitudes—o'er-taken
As by some spell divine—
Their cares dropped from them like the needles shaken
From out the gusty pine.
Lost in that camp, and wasted all its fire :
And he who wrought that spell!—
Ah, towering pine, and stately Kentish spire,
Ye have one tale to tell !
And on that grave, where English oak and holly
And laurel wreaths entwine,
Deem it not all a too presumptuous folly, —
This spray of Western pine !

—BRET HARTE.

MODERN WOOD-BENDING.

THE primitive idea of wood-bending was to conquer a stick when green, and hold it in position, as illustrated in the making of bows. New applications of the underlying principle, and discoveries incident thereto, are constantly being made, and bending for all purposes is readily done by the aid of usually simple appliances and steaming processes. Where it is desired to have the piece to stay in place, the heart is kept outward, the tendency of wood being to bend outward. But where a corner piece or other difficult stuff is being bent, the heart is kept inside because admitting of more end pressure or upsetting without giving way or wrinkling. A bent piece increases in weight for its bulk according to the extent it is compressed, being much stiffer, also, than when in its natural and undisturbed state, which makes it especially desirable for carriage work. Tests that have been made with bent and sawed stuff under similar conditions have shown the former to be the stronger. By steaming wood, its stiffness is increased, without reference to the bending, and it is also rendered brittle, which is sometimes enough of a characteristic to be detrimental to its quality. One kind of hickory is better for spokes or whiffletrees after it has been steamed, while another kind becomes very stiff when air-dried. Kiln-drying and steaming cook the gum in resinous woods, and hence have a similar effect. Stiffness is the desirable quality in a spoke, felloe or whiffletree, and in hickory, it is always increased by steaming. It is difficult to splinter or tear a piece of bent wood. Its fibers have become interwoven, and without being particularly indicated on the outside, the interior becomes materially changed.

A NEW WOOD FOR PIANOS.

A MYRTLE log has been sent from Oregon to a piano manufacturing firm in Boston, and as the wood is susceptible of a high polish it is thought that this shipment is but the beginning of what will grow to be a flourishing industry.

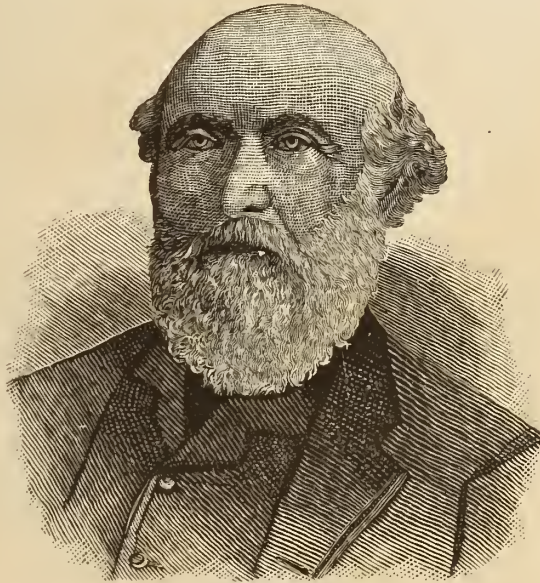
A. H. CAMPBELL.

PRESIDENT MUSKOKA MILL AND LUMBER COMPANY.

FREQUENT reference is made to the fact that a considerable number of the leading enterprises of the day are in the hands of young men. To no small extent it is true that this is a young men's age. Yet, what is more noticeable than the wonderful activity, in all walks of life, and often where the heaviest labor is called for, of so many old men—those who have, in not a few instances, passed the allotted three score years and ten? The bare mention of the name of Gladstone, or in our own country, of the two premiers, Abbott and Mowat, is suggestive of scores of others, and a multitude of interesting thoughts in this direction.

One of the largest lumber concerns in the province is the Muskoka Mill and Lumber Company, at the head of which is Mr. Archibald Hamilton Campbell, a gentleman in his 73rd year.

Mr. Campbell's has been an active, busy life, and no doubt here is the explanation of his activity to-day. He was born at Carbrook, in Shropshire, Scotland, in 1819, and a look at his features, shown in the cut accompanying this sketch, tells of that sturdiness of character and intellect, that is a predominant mark of those who hail from the land of mountain and crag. His father was John Campbell, a lawyer eminent at the Scottish



MR. A. H. CAMPBELL.

bar. A liberal education was given the son, who stood well in his classes, in both the Edinburgh Academy and University. On the completion of his studies he commenced banking, and later on, took up the study of law.

He had his eye fixed on the newer world, and the time came when he decided to embark for Canada. At all times when a boy, fond of out-door sports and athletic exercises, shortly after reaching this country he entered upon the rugged life of a miner, becoming interested in mining ventures on the shores of Lake Huron. No wealth was found in the undertaking, and Mr. Campbell, with Scottish shrewdness, quickly dropped the business, and in 1858 we find him connected with a lumber venture in Peterboro', and from that time on, without interruption, he has been engaged in the lumber business. His success is the success of the company of which he is president, which owns large limits in the Georgian Bay districts, and operates extensive mills there. In our ELI page we print a report of an interview with Mr. Campbell, in which he discusses matters of importance to the lumber trade generally. The business offices of the company are in Manning's Arcade, this city, where Mr. Campbell's third son is actively associated with him in the management of the business.

To educational matters Mr. Campbell has at all times

given considerable attention, and for some years, he was a member of the Board of Trustees of Toronto University and Upper Canada College. He is a member of the Masonic fraternity, and high up in the Order.

In religion he is an Anglican, an active member of both the Diocesan and Provincial Synods, and in the councils of these bodies no voice or opinion carries more influence than his. He is one of the founders of the Church Association organized for the purpose of checking ritualism, and one of the warmest and most active friends of Wycliffe College.

He has three sons and three daughters. The eldest son is a barrister in Toronto, the second a physician, the third we have already referred to as engaged with the father in the lumber business. All are graduates of Toronto University.

A NEW IDEA IN BOILERS.

THAT steam boilers are subjected to extremely destructive strains when the furnaces are first started for raising steam is due to the fact that those portions of the boiler surrounding the furnace become highly heated, while the more remote parts remain for a long time comparatively cool. Hence, there is uneven expansion of the metals, and the consequence is that strains are set up in the boiler, which shorten its life and are otherwise very prejudicial. To remedy this Mr. C. E. Hudson, a naval engineer of experience, has devised a simple, ingenious system, which has had a successful practical trial on board a merchant vessel. The arrangement consists in substituting for the present furnace fronts steam-heating chambers of the same strength as the boiler. These chambers, which do not interfere with the grate furnace, are at starting filled with water from the bottom of the boiler, or from any point of the boiler where there is no circulation. A small fire is lighted in the furnace at first, which heats the water in the chambers, and by degrees the remainder of the water in the boiler becomes heated, and the shell is gradually warmed, a uniform temperature being attained. During this period there is neither pressure nor steam used, and as soon as the circulation ceases by reason of the accumulation of temperature, the heaters become auxiliary boilers, assisting the larger one. As soon as the temperature has become uniform the fires are hurried and steam is raised to a working pressure. The primary work of the heaters being accomplished, the chambers are used as feed water heaters. The feed water, instead of going into the boiler direct, is diverted into the heaters and becomes heated to a temperature of 200° Fahrenheit. It will thus be seen that the arrangement is that of a combined automatic circulator and feed water heater, which not only does not rob the boiler of steam, but arrests and utilizes heat which would otherwise be wasted, or rather worse than wasted, as it radiates into the stock hole, and in some circumstances renders it unbearable. The steamship on which the system has been at work for nearly two years is the Cariganshire, a vessel of nearly 3,700 tons. The results of its application are stated by the engineer in charge to be entirely satisfactory. There has been no trouble whatever with it, and the temperature in the stoke hole is found to be reduced by 27°. A further important point is the fuel economy, a saving of 7 per cent. being shown on the average of five voyages.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

STEAM: ITS INFLUENCE ON THE ARTS AND MANUFACTURES.

IN a series of most instructive articles on this subject, from the pen of the late Prof. F. A. P. Barnard, occurs the following admirably written eulogium of the services rendered by this mighty agent of civilization in the maintenance of the commercial and industrial supremacy of Great Britain, and a graphic picture of the slowness with which the revolutions caused by the introduction of steam were brought about, because of the lack of due appreciation of its enormous powers of usefulness. We quote from Prof. Barnard in what follows:

There remains to be mentioned one additional and most important consequence of the invention of the steam engine, which has impressed profoundly not merely the industrial but the political history of the world. If the cotton-gin has been responsible for much in controlling the political and social destinies of the Western continent, the steam engine has been for still more in fixing for England her place among the nations of the earth. At the time when this splendid invention made its appearance, England called herself mistress of the seas, and assumed to be the equal, if not the superior, of any military power upon the land. This place she still claims, perhaps justly, though her title to the exclusive dominion of the waves can no longer pass unchallenged. But without the steam engine, the power of England would have long since suffered a hopeless paralysis. It is from the depths of her mines that she has drawn the aliment which has sustained her manufactures and fed her boundless commerce and built up the enormous wealth which is the basis of her present strength.

Her iron and coal have made her a hundred times richer than she could possibly have been if she had possessed instead of them all the gold of California and all the diamonds of Brazil. But a century ago, just as Watt was turning over in his mind his first crude notions of the motor which was destined to transform the constructive industry of the world, many a thoughtful patriot and statesman of Great Britain must have been regarding with anxiety and alarm the stagnation which seemed to be gradually creeping over the mining industry of his country, and the danger which menaced with speedy total extinction this great source of her national wealth. As the mines were sunk deeper, the expense of lifting to the surface the mineral extracted, of course increased; but this was a trifling consideration compared with the vastly greater expense of withdrawing the water which flowed in, in constantly increasing abundance, and which had to be raised from a constantly-increasing depth. In many instances mining had almost ceased to be remunerative; in many others quite. One after another the mines were abandoned and the water was allowed to fill them up. What had already happened in many instances could not fail to happen at length in all. An early ruin plainly impended over the mining industry of Great Britain, which could not fail to bring with it, and with the consequent failure of her fuel, an equal ruin to the manufactures, the commerce, the wealth and the political power of the British empire.

It was at this critical juncture that the new motor appeared. For some time after its appearance, it was only for the drainage of mines that its immense powers of usefulness seem to have been recognized; so imperfect at that time was the state of advancement of the mechanic arts! But applied to this purpose, then of paramount importance, it adverted at once the imminent danger which menaced British Industry, and restored to Britain the commercial scepter just as it was about to fall from her grasp. The greatness of the British empire to-day is, therefore, clearly due to her early possession of the steam-engine. Without it she must inevitably and speedily have sunk to a level of comparative insignificance.

It is remarkable that, vast as was the revolution which the steam-engine was destined to effect in the industrial world, the steps by which this was accomplished did not succeed each other with great rapidity. The first impression which the invention produced was in the relief it brought to mining. Its influence was next most distinctly felt in the development that it gave to textile manufactures. Then metallurgy yielded to its transforming power, and by degrees the same influence extended itself into every branch of mechanic art. But the application of the new power to locomotion upon the water and upon the land, applications which were destined to infuse into commerce a life and activity which it had never known before, and so to react upon production indirectly no less effectually than the same cause had already done directly, came at long intervals, and required the greater portion of a century for their full realization. It is interesting to observe how, in the infancy of a great invention, conceptions which are perfectly just, struggle painfully and often for a long time abortively, to embody themselves into form; and it is sad as well as interesting to observe what chilling lack of sympathy usually attends their announcement; what obstinate prejudices rise up to oppose their introduc-

tion; what ridicule labors to dishearten their authors; and what contemptuous refusal of substantial aid operates to paralyze effort. The practicability of applying steam to river navigation was repeatedly demonstrated before the close of the 18th century; but it was only after the lapse of forty years from the invention of the engine, that Fulton, in presence of a great multitude, assembled chiefly in the hope of finding amusement in his discomfiture, made at length the decisive experiment which was to force this truth upon the convictions of men beyond the possibility of further question.

Twenty years more elapsed before it was clearly seen in what way the same power might be made subservient to the uses of locomotion on the land; and ten more still before the problem which had been so long completely solved for inland waters was admitted to be so likewise for the ocean. We stand at the end of the first quarter of a century since the Atlantic was bridged by steam; and within that brief period the entire naval and almost the entire commercial marine of the world has undergone a complete transformation. The tonnage of vessels has been doubled, the duration of voyages has been diminished more than half, and the interchange of wealth between nations has increased no less in quantity than in rapidity. The effect of all this upon productive industry everywhere is too vast to be computed.

WOOD PULP FROM SWEDEN.

SWEDEN finds the exportation of wood pulp a profitable business, as is indicated by a regular increase of about twenty per cent. yearly. There is no reason why this growth should not be constant, for the Swedish manufacturers recognize the necessity of keeping alive the goose that lays the golden egg, and in consequence, they cultivate their forests instead of destroying them. The demand for wood pulp is constantly increasing, both for making paper and for the many other uses to which it is found to be adapted. In reality the industry is in its infancy, and it is bound to grow to proportions that will surprise even those now in the trade, and there is no reason why the vast forest lands of North America should not compete with those of Northern Europe in supplying the markets of the world. To do this successfully the woodlands will have to be cultivated according to the most approved rules in forestry, and owners of such lands, who observe these rules now, will find as the years go on that they have not only made a good profit on sales, but that the value of their lands have largely increased.—[Wood Pulp News.]

LOGGING A MILL.

BY J. H. MINER.

THE cutting of logs into lumber after they have been delivered to the mill is a minor item when we take into consideration the dangers and hindrances which attend the "logging." In a rolling section the mill should be set in a valley, so that the haul will be as much down hill as possible. It being much cheaper to put the lumber up the hill than the logs. The timber-wheels or carry-logs should be of the lever-hoist and "bobtail" pattern, which allows more room to make shorter turns. Log-wagons are in general use to haul on the logging road to mill or station.

Various appliances are now in use for conveying and handling logs, but all these, to work successfully, require thickly grown timber, as scattered timbers require the old method with the use of teams. Logs should be sawed instead of cut, as two feet out of every ten are consumed during the cutting. And two men with a good saw will do more in one day than four men armed with axes.

If possible crooked trees should be cut in the crook, so that the logs be as straight as possible. Crooked logs is the result of sprung timber, besides they cause waste in sawing every time. In felling a tree, cut it, if possible, so that it will fall fairly, or it will be broken in many cases and not detected until the saw gets it. A leaning tree should not be felled the way it leans if it can be avoided. Of course the most convenient way of getting the log out must be considered. Where it cannot be avoided the tree must be felled the way it leans; cutting the heart nearly through, leaving only the edges to break. If the outside is cut and the centre left to break, the log will be greatly damaged by splinters pulling out, and which are often seen four to six feet long.

Do not rush a team in warm weather; likewise early in the morning. Do not hire "harum-scarum" drivers who abuse and balk the teams. A first-class man will

take care of his teams and put in logs while the average man will let his teams run down, constantly breaking his wagons, and resulting in the mill waiting more or less for logs. A good man is cheaper at high wages than a team killer working for nothing. A log hauls much easier butt end foremost, and saws much better the same way, and it will not pinch the saw.

A great quantity of timber is left in the woods which should come out; and if convenient to get at a small log, do not leave it as oftentimes more time is lost in getting a large log than would go to making the difference in profit between the two.

In the snowy districts logs are skidded in various ways, but mostly by teams to certain points. Heavy logs are capped with a cone-shaped binder which keeps the log up, avoids stumps and other obstacles, and skids much easier.

DRY ROT IN TIMBER.

NO wood which is liable to damp, or has at any time absorbed moisture, and is in contact with stagnant air, so that the moisture cannot evaporate, can be considered safe from the attack of dry rot. Any impervious substance applied to wood, which is not thoroughly dry, tends to engender decay; floors covered with kamptulican and laid over brick arching before the latter was dry; cement dado to wood partition, the water expelled from dado in setting, and absorbed by the wood, had no means of evaporation. Woodwork coated with paint or tar before thoroughly dry and well seasoned, is liable to decay, as the moisture is imprisoned. Skirtings and wall paneling very subject to dry rot, and especially window backs, for the space between woodwork and the wall is occupied by stagnant air; the former absorbs moisture from the wall (especially if it has been fixed before the wall was dry after building), and the paint or varnish prevents the moisture from evaporating into the room. Skirting, etc., thus form excellent channels for the spread of the fungus. Plaster seems to be sufficiently porous to allow the evaporation of water through it; hence, probably, the space between ceiling and floor is not so frequently attacked, if also the floor boards do not fit very accurately and no oilcloth covers the floor. Plowed and tongue floors are disadvantageous in certain circumstances, as when placed over a space occupied by damp air, as they allow no air to pass between the boards, and so dry them. Beams may appear sound externally and be rotten within, for the outside, being in contact with the air, becomes dryer than the interior. It is well, therefore, to saw and reverse all large scantling. The ends of all timber, and especially of large beams, should be free (for it is through the ends that moisture chiefly evaporates). They should on no account be imbedded in mortar. Inferior and ill-seasoned timber is evidently to be avoided. Whatever insures dampness and lack of evaporation is conducive to dry-rot; that is to say, dampness arising from the soil; dampness arising from walls, especially if the damp-proof course has been omitted; dampness arising from use of salt sand; dampness arising from drying of mortar and cement. Stagnation of air resulting from air grids getting blocked with dirt or being purposely blocked through ignorance. Stagnation may exist under a floor although there are grids in the opposite walls, for it is difficult to induce the air to move in a horizontal direction without some special means of suction. Corners of stagnant air are to be guarded against. Darkness assists the development of fungus; whatever increases the temperature of the wood and stagnant air (within limits) also assists.

EVAPORATING SALT.

AN officer of the Canadian Pacific railway is reported to have inspected the new patent vacuum pan process of evaporating salt from the brine, invented by Thomas Craney, an inventor of Bay City, Mich. The new process has been in use on the St. Clair river, and is also worked in connection with the caustic soda plant of McGraw Bros., of Bay City. The process it is anticipated will be an important factor in salt production both in Canada and the United States. It is stated that the officer in question was greatly impressed with the experiment and held out inducements to Mr. Craney, to come to Canada and introduce the process. It is thought he will come.

FRICION GRIP PULLEYS.

THE accompanying cut illustrates quite fully some of the operations of the celebrated Friction Grip pulleys. These are worthy of a close study by all sawmill men and workers in machinery.

No 1 is a grip driver on the main shaft, which drives the cross shaft 3 by the mule pulley stand at 2-2, and the cross shaft 3 is stopped and started by simply throwing the grip pulley 1 in or out of grip; when 3 is started pulleys 4 and 5 can be started at will to run either the planer or the saw. The 4th grip pulley No. 8 drives on to counter shaft 10, driving with a cross belt at 10 to a borer at 9. Were it not for the grip pulley at 8 the counter shaft 10 would run continually, and a tight and loose pulley would have to run from 10 to the borer, the same to planer and saw.

An important feature of these Grip pulleys is expressed in the words that have now been adopted as a motto by the manufacturers, "Grips always motionless when out of clutch." A prominent electrician has explained that this is a most important feature and one he had not seen in any other grip pulley. It permits any pulley on the shaft to be stopped and the grips adjusted without interfering whatever with the shaft.

The Grip pulley might, in the broadest use of the term, be called an "all round pulley," so completely have the manufacturers combined in it the strongest essential features necessary to the perfect working of any pulley, and added to these are the special and valuable features exclusive to this grip pulley. We find that this pulley when not in grip is stationery, and this feature applies both to the driven and driving grip pulleys. The ease of adjustment of these pulleys will be appreciated by every workman; every portion of grip from collar or shaft to grips on friction rim in plain sight and reach. The adjustment is as simple as one would wish to see it; there is but one set screw to each grip to adjust friction shoes; when worn out they are readily replaced, being hard maple with end wood to wear; a short, quick movement of slight force, engages or disengages grips, or a slower movement if desired.

These pulleys to-day are in use in all classes of mills and manufactories throughout the Dominion, and the fact that the Waterous Engine Works Co., Brantford, who are the manufacturers, are constantly in receipt of additional orders from the firms having them already in use, is about as satisfactory commendation of their real merits as the most practical business man is likely to want.

BELT HOLDERS AND LOOSE PULLEYS.

BY J. L. O.

THE proper care of loose pulleys and idlers is a very important consideration in a large wood-working mill or factory where there is a large amount of oil and babbitt metal used to keep up these parts of the running gear of the mill; that is, to keep them in good condition. What is more disagreeable than to go into a mill and hear one or two loose pulleys rattling and jarring away at a fearful rate and doing great damage to the shaft, which in the end will be cut up and worn so badly that the shaft has to be taken to the machine shop and trued up. This can be done once or twice, and then the shaft is too small for further use unless the worn piece is cut off and a new piece welded on and trued up. I have often seen this done on account of the shaft being so badly cut up; the only resort was to weld a piece on and true up. I have seen pulleys reversed; that is, the tight changed over to the other side of the loose pulley on account of the shaft being so worn.

Some of the troubles mill men have to contend with in loose pulleys, are too small oil holes for oiling, the

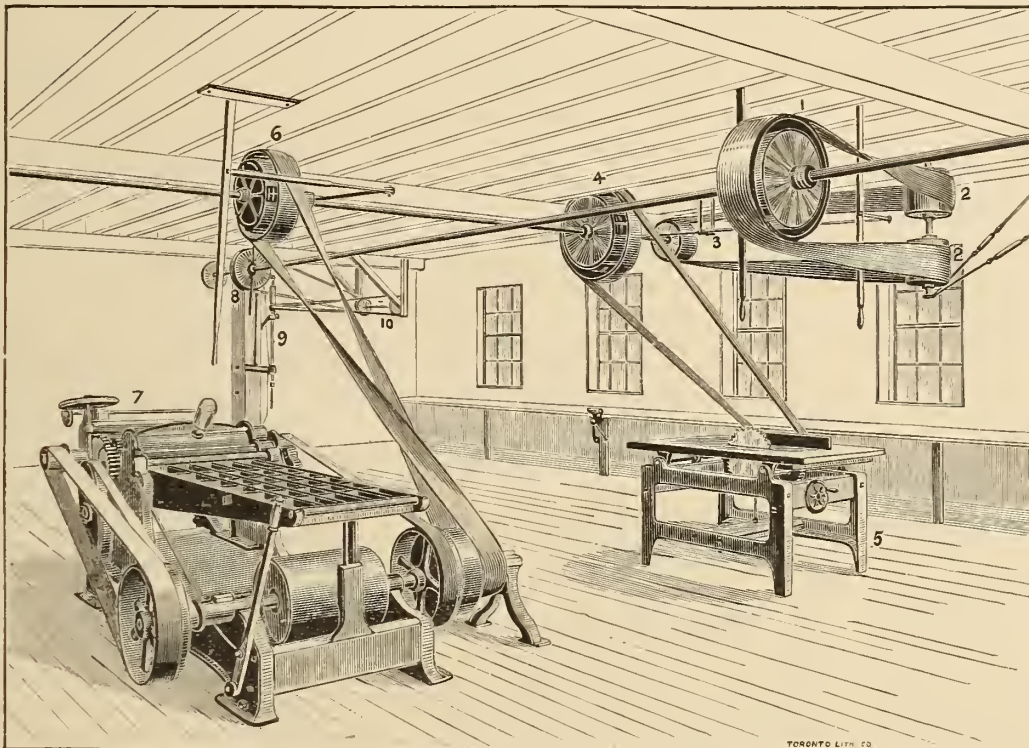
metal wearing and closing up the oil holes. When this happens, the pulley soon cuts out. Sometimes a loose pulley wears out on one end more than the other; this causes the belt to run crooked on the pulley. I have seen a belt worn out from rubbing on its edges before the face was a little bit worn. I have seen rods and sticks driven in the ground to keep the belt on the pulley when the machine was standing idle, from the loose pulley being worn oblong and one-sided. If loose pulleys could be discarded it would be a great blessing to men who have charge of such work in a planing mill, and a great saving of money in a year's time. On large flooring machines and surfacers, the driving-belt is generally six or eight inches wide; if it is rubber, it is four-ply, or, if it is leather, sometimes it is double thick. Both kinds are very heavy and have a hard pull on a pulley, and a pulley generally lasts eight months before it is required to be filled. In winter time great care has to be exercised to keep them well oiled, on account of the small space for oil, and the oil becomes chilled before it reaches its destination, hence the trouble—rattling pulleys. I would prefer to work all night or any Sunday filling loose pulleys, than to hear loose pulleys rattling and jarring all day long.

The object of these remarks is to advocate something that will be an improvement upon the old methods as far as loose pulleys are concerned. I consider the Wellington belt holder a great improvement in this line

it works successfully. There is a countershaft under the floor where the saw frame stands, driven by belt from the main shaft. On one end of the countershaft, next to the pulley which carries the belt from the main shaft, is a driving pulley which carries the belt up through the floor to the small driven pulley on the saw arbor. An iron-flanged pulley, eight inches in diameter, in a well-arranged lever-handle, secured to small yet strong wooden hangers, is placed at a suitable distance from the driving pulley on the countershaft. Two strong cords, 5-16-inch diameter, such as used for weighed window sash, are connected to this lever handle, passing through sash pulleys such as are used in window frames for raising sash. One cord is placed in one direction and the other one in another direction; pulling on one cord brings the binder pulley against the belt and starts the saw; pulling on the other, stops the saw at once. The flanges on the binder pulley (which runs as an idler on a shaft running through the binder frame) prevents the belt from running off the pulley when stopping the saw or releasing the belt when it is running at full speed. In fact, the arrangement works successfully. It is on the principle of a feed binder on a flooring machine. The whole arrangement interested me very much. It originated from a studious thoughtful and painstaking mechanic. It is simple, yet durable, out of the way entirely, and finished up in a workmanlike manner. Any one contemplating erecting a rip saw of this kind, would do well to give the arrangement described above a careful study, as I am sure it will prove profitable in the end. A great nuisance is dispensed with; that is, too many loose pulleys, which require much time in looking after and keeping them in running order.

THE FLYING SPARKS.

AT the last session of the Ontario Legislature the Mutual Fire Underwriters' Association of this province endeavored to secure an enactment making it compulsory that all steam engines be placed at least 100 feet away from farmers' barns and stacks while threshing. It was claimed that a large percentage of the fires in rural sections could be traced directly to the spark from the fire-engine. The measure did not become law, though it is not unlikely that it will come before the House again at some future time. The portable fire-engines give trouble to



OPERATIONS OF THE FRICION GRIP PULLEYS.

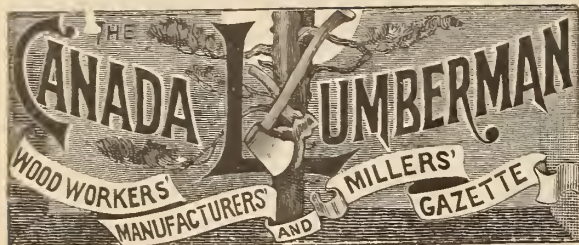
wherever it can be used. We will take for example, a weatherboard resaw. The belt holder is placed in proper position next to the driving pulley on the line shaft. The belt can be shifted off and on to the driving pulley at will. When the saw is not in use, the belt is shifted to the belt holder and stands idle. This saves the belt and a loose pulley is dispensed with—no loose pulley to look after. Small edging saws and self-feed rip-saws can be operated in the same manner, without loose pulleys, by having belt holders attached.

Patent friction clutches have been largely introduced into mills of all kinds because they fill a want long felt. I know of a place in this vicinity where the friction clutch is used to a great advantage by stopping in a moment a length of shafting when not in use, and the same works successfully. I know of a mill where there is in full operation several saws, run entirely without loose pulleys, the belt holder taking their place in every instance, giving entire satisfaction. The belt holder can be used on a flooring and ceiling machine in conjunction with a loose pulley, to advantage. When the machine is standing idle for a short space of time, and sometimes longer, the belt can be shifted over on the belt holder. This is a saving to the belt and loose pulley.

A very ingenious contrivance and a saving, is a small saw which I have seen put up, and is now in use, dispensing entirely with a loose pulley or belt holder, and

lumbermen as well as farmers. One of the annoyances of sawmill men using portable boilers and engines is the shower of sparks and cinders from the smoke-stack, endangering adjacent lumber, timber and sheds. By reason of this fountain of fire from the stack, it is often impossible to get a team to stand near it during loading or unloading. A southern lumberman proposes to get over this trouble by an ingenious yet simple device for arresting sparks before they are forced up the stack by the exhaust. It consists of a simple annex or extension of the boiler, at or beyond its intersection with the stack. The extension is about twenty-six inches beyond the stack, and to this is affixed an iron adjustable drum, which can be removed for cleaning out ashes. This receptacle catches all the sparks forced rearward by the exhaust, the artificial vacuum creating an eddy in the current of air at the rear of the boiler, forcing them back and the specific gravity causes them to settle in the drum, as the smoke goes off through the stack. The spark arrester in this method is at the bottom, instead of at the top of the stack. The principle is that of the locomotive boilers; which are all extended beyond the stack, without return flue, and is, therefore, not new, but in its application to sawmill boilers it should be worthy of some consideration.

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THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

OURSELVES.

LUMBERMEN are modest kind of folk, not much given to tooting their own horn, and it is becoming their representative, the CANADA LUMBERMAN, to preserve a like demeanor.

We prefer at any time that our work shall speak our worth, and this is about the way we are prepared to let matters rest just now. Let it be remarked, however, that this is our birthday, the thirteenth anniversary of the first issue of the CANADA LUMBERMAN. Steadily, regularly and promptly each month, during the twelve years now closed, through good report and ill, fair weather and foul, we have endeavored, faithfully and intelligently, to represent the vast lumber and kindred industries of this Dominion.

Twelve years is not a long time in the life of man, but it represents in trade journalism in Canada a record that tells of a measure of success, a degree of solidity, of which we need not be abashed.

We celebrate our birthday by appearing before our readers in new clothes. The type founders have been working on us for some time, and it is due them to say that they have done their work well, and that the new dress in which we appear to-day is just about as pretty as they make them. Don't you think so? We do not wish to excite envy in the breast of our fellow journalists, but if there is a handsomer printed trade journal in Canada than the CANADA LUMBERMAN we want to see it. Everything about the journal is new, the type from which the paper is printed from cover to cover, new and finer paper, a new cover and new heading, and the best of press work; and each particular part made, as it were, to nicely dovetail one into the other.

But the showing is not all outside. The effort of the proprietor of the LUMBERMAN has been above all else to keep this journal in perfect touch with every interest of the lumber trade; capable, well informed, reliable and thoroughly impartial in its treatment of every lumber issue. From the many kind words that we are con-

stantly receiving from leading lumbermen in all parts of the Dominion—for in no sense is the LUMBERMAN sectional in its character—we are led to believe that they appreciate the various improvements that have been made in the editorial management of the paper within the past year. We may only say that these several special features will be part of the general make-up of the LUMBERMAN for the new year. ELI will talk to you as of old; our special letters from leading lumber centres at home and abroad will come along promptly every month; the news columns will be made replete with the latest news; in the editorial pages topics directly pertinent to the lumber industries will be discussed from a standpoint having only in view the interests of the lumber trade as a whole; articles of purely practical and technical character will have ample space placed at their disposal. In addition to these and other features, which we believe are rightly valued by our readers, we shall introduce throughout 1891 a number of new features. The ELI page will contain not only chats with prominent lumbermen, but it will be graced from month to month with the faces of not a few of the men who help to make lumber opinion. A character sketch, with portrait, of leaders in the trade will also appear each issue. This month opens with Mr. A. H. Campbell, the well-known president of the Muskoka Mill and Lumber Company.

Technical articles will from time to time be illustrated, not to say anything further of other improvements, all tending to make the CANADA LUMBERMAN still more valuable to the trade generally.

LUMBER AND RECIPROCITY.

THE principles of reciprocity continue to find favor with the American Government. Under a reciprocity agreement recently concluded with Germany, duties on forest products are reduced as follows:—"Lumber and timber: 1. Raw or merely rough hewn with axe or saw, with or without bark, oaken barrel staves, unchanged. 2. Marked in the direction of the longitudinal axis, or prepared or cut otherwise than by rough hewing; barrel staves not included under No. 1; unpeeled osiers and hoops; hubs, felloes and spokes, 25 per cent. 3. Sawed in the direction of the longitudinal axis; unplanned boards, sawed cante woods and other articles, sawn or hewn, 20 per cent." Some day there will be a conference between the statesmen of Canada and the neighboring republic, and it may be that then lumber conditions between the two countries will undergo other changes.

In the meantime the subject continues to provoke increased discussion in both political and trade circles in both countries. One can seldom take up a United States lumber exchange without finding reference, less or more, to the question, and lumbermen on the other side of the border are divided on the question just as they are here.

The Northwestern Lumberman, of Chicago, continues its discussion of the subject of "American Markets for American Lumber," following the letter of Mr. Huyett, which opened the discussion, and to which reference was made in these columns last month, by letters and special articles from lumbermen in different parts of the United States. The majority of opinion expressed by these correspondents is favorable to the exclusion of Canadian lumber, but, as the Mississippi Valley Lumberman points out, the discussion shows that the subject is largely local. All depends on whose ox is gored. The contributors to the literature on this subject are almost without exception eastern men. 'A reciprocity treaty with Canada would widen the field of the lumber producers in Minnesota, who, despite the present restrictive tariff, succeed in shipping lumber into Manitoba and the Northwestern provinces.' In some of the letters published there is little logic or reason, while there is a good deal of the hurrah style of logic that is common to the man who supposes that around his particular ism is centered the wisdom of the universe. One writer tells us that a national convention of lumbermen is not only "imperative but inevitable. The lumber manufacturers have been outgeneralled through the Dominion Parliament, and it is time to appeal to our national legislature."

The Northwestern Lumberman itself remains only an onlooker. Colorably it is with Mr. Huyett and his friends in this agitation, but is shrewd enough to let them

do the talking. At the same time, in an editorial paragraph replying to the Montreal Journal of Commerce on the saw-log duty—a summary of the article appears among "Views and Interviews" in the LUMBERMAN—our Chicago contemporary tell us, in deprecating tones, that after all the volume of logs towed over the border from Canada this year is not more than 1 per cent. as much as has been sawed in Michigan, Wisconsin and Minnesota in a year, and the quantity of lumber brought over is only two or three times more than this. To Mr. Huyett the worry is that, if present conditions prevail in 1892, this quantity will be raised to 125,000,000 or 150,000,000 ft. Matters, he thinks, are bad enough now; they will be worse then. But suppose the quantity does go up to the last figure, it would only be about 2 per cent. of the cut of the three pine states named, and even when the importation of lumber is added to the logs, according to the Northwestern, the whole thing would not be more than a drop in the bucket to the American lumber trade. Then why all this ado over the question? Where this terrible competing monster, who has already shaken the lumber trade of the United States from Maine to Texas and from Washington to Florida? We have a shrewd suspicion that the Northwestern Lumberman, when it started this discussion, was after an agitation that would boom itself in certain lumber sections; and it has been astute enough to let other folks do the booming without committing itself too emphatically one way or the other.

A DEFECT OF WOOD PULP PAPER.

A COMBINATION of circumstances of late years has led to the manufacture of printing paper in large quantities from certain kinds of woods, chiefly spruce and poplars. It is in the memory of many of us, when the rag bag of the home was a valuable asset in the providing of pin money for the little woman of the house, or sufficient to keep the small children in boots and shoes. Everything in the way of rags, and paper made from rags, was carefully preserved, and found a ready road to the paper mill there to go through the various processes needed to make a good sheet of white paper, which, after the printer and binder had done their work, would come to us as a handsome volume of Tennyson, Longfellow or Shakespeare. This day has gone. The everlasting reaching out for cheapness, the curse of the competition of the age in every department of business, set ingenuity moving for some other commodity from which to make paper at a less cost than rags. The outbreak of the American civil war served in a degree to stimulate this ingenuity. In 1862 the price of cotton ran so high, that common book paper rose to twenty-two cents a pound, a price altogether too high for profitable book-publishing. Straw, which had long been used for coarse wrapping paper, was mixed with rags. Then wood was tried—the softer kinds—and the pulp produced from it was mixed with the cotton pulp, until to-day paper is almost entirely composed of it. This is a good thing for the wood pulp men, but a recent examination of some of the early books printed on the wood pulp paper has revealed a condition of affairs that to book men is rather alarming. Many are the jests that have been made at the expense of the literature of the present and past ages, and plausible arguments have been produced to prove that the world would really lose nothing by the burning of our most valuable libraries. Few, however, will treat this style of argument with any measure of seriousness. We all know that the thoughts of the world's great thinkers are too important to be consigned to oblivion in this fashion. But if wood pulp is to be used extensively in the production of paper for book-making, we can have no permanency given to the thoughts that will be printed on its pages. A writer who has been investigating this matter tells us that books printed on paper made from cotton retain in after years all their natural whiteness of surface, but books printed from wood pulp paper in only a few years assume an ugly yellowish appearance and become quite brittle. "Let me," says this writer, "take down a few fairly typical books from my own shelves. Here is a copy of Henry Mackenzie's works, published in New York in 1836. It was a comparatively cheap edition, containing in one volume the three volumes of the

original English edition. But it was printed on paper made entirely of cotton, and every page to-day has a clean, pure white surface, and every letter is as distinct as when it came from the press of the Harpers. Contrast it with any volume of this set of the elder Disraeli's works, which was printed in New York in 1863, and is therefore just half as old as the Mackenzie. The leaves are all yellowed at the edges as if every page were set in an old-gold frame, and even in the centre they are noticeably brittle; or take an edition of Lamb's 'Essays of Elia' (1860) or a pretty edition of Irving's 'Tales of the Traveller' (1865), so of numberless others. One of the most flagrant instances is furnished by a beautiful holiday book of permanent value, perhaps the finest that was issued in the season of 1882. The drawing and cutting of the illustrations alone cost \$5,000, and copies of the book in the ordinary binding sold for \$10. It is not yet nine years old, but it is already marked for destruction. You can fix the periods of the successive changes in the composition of paper by looking at books and observing the dates on their title pages." To the world of letters, however, it may strike the manufacturer, the matter is of no ordinary moment.

AMERICAN LUMBER OPERATIONS IN CANADA.

ONTARIO is not the only province in the Dominion into which United States lumbermen are extending their operations. It is well known that many of the largest operators in this province are Americans, largely interested in the working up of pine, and hailing from the pine state of Michigan. We now have Maine lumbermen casting a wistful eye at the spruce of New Brunswick. They see more than spruce. The lumbermen of New Brunswick have devoted their attention chiefly to the production of deal logs for the English market; this has called for logs of a large size, and in securing these smaller trees have been neglected by the log haulers. Recently a tract of rather more than 50,000 acres, about 25 miles distant from Fredricton, which had been well cut over for deal logs, was placed on the market, and a syndicate of Maine operators, among who are Messrs. F. Gilman, of Bangor, and Bennett, of Danforth, have become the purchasers. A portion of this land runs close to the railway, and it contains, it is claimed, large quantities of birch and maple, which can be marketed by rail without difficulty. The same parties, associated with others, have also lately become the purchasers of 64,000 acres of spruce land of excellent quality, on the Miramichi river. A Bangor syndicate, in addition to the transactions here named, have bought a tract of 10,000 acres of sapling pine lands, situated on the Tracadie river, which discharges into the Gulf of the St. Lawrence. The indications are that these Americans will become owners of mill property in New Brunswick, as well as the timber, and if this be the case, the lumber trades of the Maritime provinces should experience a revival, which is certainly much needed, as a result of this fresh influx of capital and business energy.

APPROPRIATING LOGS.

ABOUT six months ago the United States Government appointed two special agents, DeLambert and Stout, to investigate the stories of trespassing on Government lands, on the boundary lines of northern Minnesota. These men have now been four months at the work, in fact they had not been heard from for so long a time that fears were entertained in Washington for the safety of the party. The Washington Government are satisfied from the report that has been presented to them, although only a portion of the streams and waterways on the boundary lines were examined, that extensive trespassing on Government pine lands has been going on for some time. The expedition travelled 1,500 miles, mostly by canoe. It is anticipated that the report, which is in preparation, will recommend the establishment of a Government post at the mouth of the Rainy River. It is probable that the party will return in the spring and examine the country in the Red Lake reservation, which is entirely drained by rivers flowing north. Most flagrant lumber depredations it is alleged have been committed all through this country, the logs being floated off to Rat Portage.

EDITORIAL NOTES

A HAPPY NEW YEAR.

WE may remark parenthetically that this is the month for renewal subscriptions. Has your subscription to the CANADA LUMBERMAN expired? A glance at the wrapper will give this information. It has cost some money to produce a journal as well gotten up as the LUMBERMAN, and you may remit your subscription as promptly as you like—you will not cause offence by being too prompt.

DECEMBER marks the retirement from the Albany lumber market of H. W. Sage & Co., who have conducted a branch at this point since 1867. Headquarters of the firm are at Ithaca, N.Y. The firm were large handlers of Michigan pine of their own manufacture. "The Albany market," says the New York Lumber Trade Journal, "will never recover from the loss of so large an interest, and their place will never be filled."

WE are in receipt of a letter of considerable length from William Little, of Montreal, a close student of lumber problems, and whose contributions to these pages in the early part of 1891, will be remembered by our readers. In the present letter he discusses in his own vigorous fashion the effect of the abolition of the export duty on logs on the lumber trade of Canada, making a strong plea for its renewal. The crowded condition of our columns prevents inserting the letter this month. In the February issue our readers will hear from Mr. Little.

DIFFERENT countries, and different methods of doing business; not without good reason our local lumbermen have found fault with the system of selling lumber to country dealers on three months time, which has frequently meant three months renewal for at least part of the purchase represented in the amount. But in Sweden, in her export trade with Great Britain, lumbermen have been accustomed to sell on six months' credit. A movement, however, is now being made, and will likely be successfully carried out, to make the time four in place of six months.

DULUTH is a point that has experienced quite a boom in lumbering the past season. The cut of the saw mills of this district show 253,300,000 feet, against 215,000,000 feet in 1890, and that of the city mills 127,300,000 feet, against 70,000,000 feet last year, the gain being entirely in the mills in Duluth. In the district there were also manufactured 53,111,000 lath and 74,552,000 shingles. Next season it is expected that nearly 100,000,000 feet will be shipped East from Duluth. Many new lumber firms have come from Saginaw this year, and six mills have been built in Duluth, adding 150,000,000 feet annual capacity. Two of these mills have a capacity of 50,000,000 feet each. "The output of city mills next year will run up to 200,000,000 feet, and that of the district to 350,000,000. If two or three mills are built, as is expected, it will be much more."

A FEW months ago we had occasion to refer to the disposition of United States lumbermen to seek fresh fields of purchase and to get away from the middleman as far as possible. We judge that this spirit of change is operating against the trade of not a few lumber points, where the trade was supposed to be solid and safe. We learn within the past month that over 50,000,000 feet of lumber have passed by Saginaw and Bay City, Mich., from Menominee, en route to Buffalo and Tonawanda, N.Y., which markets have formerly been considered as belonging especially to the Saginaw River mills. Michigan lumbermen, in making up their balance sheets and finding a shrinkage in trade, are disposed to charge it to the volume of Canadian lumber that is reaching their side of the lines; they may also take cognizance of facts like that connected with Menominee, which we have here stated, as having some relation to Michigan trade.

SOME curious make-shifts in the way of building, on account of the high price of materials, have to be resorted to in Mexico. Take the matter of nails, for instance. These cost from 16 to 25 cents a pound, and they are so expensive that a great part of the building is done with ropes, instead of nails. Within a stone's throw of the Iturbide Hotel an immense building is being erected. The scaffolding is tied together with ropes, the rafters being spliced in this way. Many of the huts have roofs of thatch tied to rafters with ropes, and some of these huts have not a nail in them. Few wooden buildings are known. The average house has neither cellar nor garret, and the fastenings which we make with nails are ingeniously constructed with brick and mortar. All classes of building material are costly here. You have to pay \$35 or \$40 a thousand for flooring, and glass is very high.

A LUMBER salesman scores one for the lumber trade journal of his section. He tells how he read a four-line item, that a certain concern in Ohio had obtained a contract requiring over 1,000,000 feet of lumber. He had never dealt with the concern, but wrote it, and later on made a price; result, he has sold the firm 250,000 feet, obtained from reading that four-line item. And yet there are lumbermen, who say "a lumber paper ain't no use nohow." The lumberman who knows his business best and keeps in the front of the procession, reads his lumber paper carefully from cover to cover. Such men know how infinitesimal is the subscription price of one dollar a year, which is the annual subscription of the CANADA LUMBERMAN, compared with the valuable news items, useful hints, pointers and information, which they obtain from each number, and that pays a dividend largely in excess of any other investment.

THE Timberman of Chicago, commenting on the saw log question, remarks "that the present condition of affairs has been brought about by the adoption of an exactly similar line of policy by the United States as that inaugurated by Canada in 1879 under the name of the "National Policy." The watchword throughout Canada at that time was and still remains "Canada for the Canadians," and the United States cannot be blamed for attempting to work out her destiny upon the same lines." This is refreshingly fresh. Our good brother does not propose surely to credit this country with leading the United States in a restrictive trade policy. We have a dim recollection of a neighbouring country erecting a high tariff wall some time back of 1879, and of a well-known journalist, Greeley by name, who made some claim to being one of the fathers of the policy. Oh, no, brother, this country, we opine, caught the protection fever from her cousins to the south.

EXPORTERS say the only disagreeable feature of South American trade is the uncertainty of getting paid. This truly is a disagreeable feature, which is sufficient to keep them from attempting to secure any trade in that direction.—Chicago Lumber Trade Journal.

UNFORTUNATELY South America is not the only place where this uncertainty exists, and if we read our Chicago contemporary right, lumbermen know something of this species of trouble nearer home than South America. We have an experience of the business in Canada, and in Toronto. But the lessons learned from time to time from this experience are like the admonitions we give to the small boy of the family; the naughty action is repeated over and over again. Trade may be dull and business rendered unprofitable because of this; in the heat of competition prices are no doubt cut, and profits become hardly perceptible even to the microscope; but the story of every balance sheet, that most correctly explains the unsatisfactory and unpleasant features of the year's business, not any one year, but every year, is the column marked "bad and doubtful accounts." We are constantly placing business where there is an "uncertainty of getting paid," and where it is known uncertainty most certainly exists. Were one year's record of losses from this one cause placed together and held up before the lumbermen of this country, and every country, it would produce a shock that is yet unobtainable from any electric battery that has emanated from the wizard of Melno Park.

YOU cannot afford to be without the CANADA LUMBERMAN. Yearly subscription \$1.00.

THE NEWS.

ONTARIO.

—Loggers are looking for snow.
 —Send the news of your district.
 —John Fownes, saw mill, Elgin, has failed.
 —Isaac Newlands, builder, Kingston, is dead.
 —Wm. Phillips, of Young Ireland, Ont., jammed his leg while logging.
 —January is the month for renewal subscriptions. The LUMBERMAN is \$1.00 a year.
 —T. G. Wigg, of Thessalon, has become scaler for the Spanish River Lumber Company.
 —The lumber and shingle mills of Mr. Hubble at Markdale, are doing a good business this fall.
 —H. W. Petrie, of Toronto, is making large shipments of sawmill machinery to British Columbia.
 —Moffat & Co., of Carleton Place, whose planing mill was burned a month ago, are rebuilding rapidly.
 —The new Buill, Orr, Hurdman & Co. mill at Ottawa, when completed, will have a capacity of 37,000,000 feet.
 —A load of logs, the first of the season, were brought in on sleighs a week ago for G. W. Green & Son's mill, Kingston.
 —An Ottawa butcher made a Xmas. showing of a monster black bear, which some of the "boys" killed up the Gatineau.
 —Mr. T. H. DeCew, of Essex, is said to own over 1,600 acres of fine timber land in Oregon, which he thinks will yield not less than 100,000,000 feet of lumber.
 —An extra gang of men have been sent to the Upper Ottawa shanties from Lower Town, to be employed chiefly as road-makers and general purpose hands.
 —The Ottawa Lumber Company's concern near Calumet have closed down for the winter. They have re-engaged all their mill hands for their shanties on the Rouge.
 —Lumbering operations in the Lake of the Woods are reported quite active, though three of the Rat Portage mills have sufficient logs on hand to keep their mills running next summer.
 —E. Paradis, of Ottawa, has assigned. He is a mill foreman himself, and his wife has been running a grocery for him. During the strike his customers' accounts piled up, and he ran behind, until now the creditors' patience is exhausted.
 —J. R. Booth, of Ottawa, who put thirteen band saws in his new mill, has decided to take out five of them. The original number is in excess of his requirements. Buill, Orr, Hurdman & Co., who are enlarging their mill, will secure three of them.
 —A proclamation is published forbidding the movement of saw logs or parcels of timber, in booms of over 5,000 pieces, in the main navigable channel of the Trent Valley Canal system between Pigeon Lake and Young's point, under severe penalties.
 —The Elmwood Lumber & Furniture Company, of Elmwood, gives notice of an application to the legislature for incorporation, for the purpose of carrying on a lumber business and for the manufacture of furniture, etc., the capital stock of the company being placed at \$20,000.
 —Gillies Bros. have recently purchased M. L. Russell's limits on the Bonnechere at Round Lake and Pine River, sixty miles from Renfrew; and estimate to cut 200,000 logs on it this season. Mr. Russell is said to have sold well and Messrs. Gillies to have secured a good bargain.
 —W. H. Simpson, hotelkeeper, and Paul and Alf. O'Neil, have secured a timber limit containing about 19,000,000 feet at Bescotasing, on the Spanish River, and propose working it for "all they are worth." A gang of about 30 men in charge of Alfred Edgar, of Bobcaygeon, as foreman, will do the work.
 —Martin Armstrong, a young man living at Nassau, near Peterboro, was instantly killed while working in the woods on the limits of the Lakefield Lumber Co. The deceased was working near a tree which had, in falling, lodged against another. The fallen tree, becoming released, crashed to the ground, and one of its limbs struck Armstrong.
 The R. H. Smith Company, of St. Catharines, report that with 1891 they closed one of the busiest years in the history of their firm. The demand for their "Leader" cross-cut saw has been exceptionally large, and what has been most encouraging, these saws have given complete satisfaction to the purchasers. The same firm are sole manufacturers of the Simond's circular saw, which is pronounced the most uniform in temper of any saw made.
 —The master-in-ordinary has given an important judgment in the case of the Bloor Street lumber Co., whose troubles have before been referred to in these columns. This was an applica-

tion made to have Stephen Wilcox, H. Mullen and T. J. Hammill declared as contributors to the stock of the company to the extent of \$3,000 each. The defendants owned the premises and stock, which, on the formation of the company, they handed over and accepted \$3,000 each in paid-up stock in payment. The plaintiffs claimed that the stock was not paid up by this means; that the defendants should rank as creditors the amount of property they turned over, and as debtors to the amount of their stock, which was claimed to be unpaid. The master held that there was no liability upon the shares held by the defendants, and that the shares were fully paid.

—The Parkin Shingle Company is applying for a charter to manufacture shingles in the town of Lindsay, with a capital of \$15,000. The company intends running its shingle mill all winter, as it has sufficient stock on hand. It has two shanties getting out timber for next season's cut—one in Somerville, on Mud Turtle Lake, and the other a few miles from Bobcaygeon, where the company recently purchased the standing timber on 300 acres of land belonging to the Bick estate. About 3,000 logs have been cut on this limit up to date, and drawing to water will begin as soon as there is sufficient snow. The firm has a market in sight in the New England states for 20,000,000 shingles for next season, and will run night and day to supply the demand.

QUEBEC.

—Copping Bros., lumber, Quebec, have dissolved.
 —F. Tremblay, sash and door factory, Montreal, is offering to compromise.

NEW BRUNSWICK AND NOVA SCOTIA.

—C. S. Stephen, Fall River, N.S., has assigned.
 —J. & J. Parker, saw mill, Pollett River, N.B., are insolvent.
 —Gibson's new shingle mill at Marysville, N.B., when completed, and running at its full capacity, will, it is said, provide shingles enough, four inches to the weather, to cover a farm of a hundred acres in little more than a year.
 —All saw mills along the line of the Canadian Pacific Railway in New Brunswick have been shut down for the winter, and only a few men are now engaged on the wharves clearing up and covering the lumber piled there. This stoppage occurs about a month earlier than last year. Nearly all the wharf men have gone to the woods.
 —Owing to depression in the lumber business, Mr. Hickson, of Newcastle, N.B., has made up his mind to go out of the business of sawing lumber for the deal trade. At present he has a number of men employed changing his sawmill from a gang to a shingle mill. It is his intention to run ten shingle machines. These machines, when in proper working order, he estimates will turn out about 140,000 shingles a day.
 —Operators in Nova Scotia, it is claimed, are enlarging the volume of their business considerable this season. Huntley & Epps have thirty men in the woods at Lakeland, and have already got out about 3,000 logs, and have commenced sawing. Young Bros. & Co. have sixty men in the woods at Newville and about an equal number at River Herbert. The Newville gang already yarded 18,000 logs, and are getting out about 800 logs every working-day. The operations of Young Bros. & Co., will be larger this winter than ever before, and they will probably employ fully 200 men during the winter.

—Nova Scotia has taken a new departure in the construction of timber carrying ships. The bark Argentina, built for the South American lumber trade, is the pioneer vessel, with a registered capacity of 583 tons; she carries an immense deck load of lumber, without any ballast whatever. Allowing ten days to clear the river and gulf, she expects to make the balance of the run from Montreal to Monte Video in forty days, making the time for the whole run fifty days or thereabouts. The average time for an ordinary sailing vessel from Montreal to the River Platte is about seventy days.

—The Fredericton Gleaner, estimates the season's cut of shingles for New Brunswick at about 100,000,000. Of this about 65 millions will come over the Grand Falls. Of this latter quantity 15,000,000 will be cedar, from which John Morrison will make about 50,000,000 shingles; Stetson, of St. John, 30,000,000; Miller and Woodman, St. John, 40,000,000; John McMulkin about 10,000,000, and other manufacturers smaller quantities. For the cedar cut which will not come over the Grand Falls, James Murchie & Sons will make about 25,000,000 shingles. The new company of Americans which has purchased the Sears mill property, on Fish River, will make between 30 and 40 millions to be shipped by the Temiscouata Railway. The new mill being fitted up at St. Francis, on the American side, by Messrs. Wheelock & Anderson, with four machines, will cut about 10,000,000 shingles. This cedar will be got out on the St. Francis River, and will also be shipped by the Temiscouata Railway. The Van Buren

mills will make about 30,000,000 this year, secured largely on Grand River. The Salmon River mill, owned and operated by Hiram Stevens & Sons, of Maine, will manufacture between 12 and 15 millions.

MANITOBA AND NORTHWEST.

—J. H. McConnell has opened out in the lumber business at Hamiota.

—A. J. Hughes, late of the firm of Hughes & Atkinson, lumber merchants, Winnipeg, has opened out business on his own account.

—Henry Roberts, of Strathclair, who now sells groceries and lumber, is adding a general stock of merchandise to the present stock of tea and timber.

BRITISH COLUMBIA.

—Housely & Co., planing mill, Vancouver, are out of business, and succeeded by Robertson & Hackets.

—The first shingle mill ever started on Vancouver Island has just commenced operations in Victoria, the owner of it being Mr. W. E. Loser.

—Shipments to Valparaiso have continued throughout the month. The "Athol" left the Hastings mills, New Westminster, a few days ago.

—The saw mill at Golden is engaged in cutting timbers for a new vessel to be built this winter or early next spring by the Upper Columbian Navigation Co.

—Robertson & Hackett, sash and door factory, Vancouver, have made considerable addition to the factory since it came into their hands.

—The British ship Athlon, 1,371 tons, is chartered to load lumber at the Hastings mills, for Adelaide. This vessel loaded at Moodyville about nine years ago.

Application has been made to the British Columbia legislature by E. H. Post, John Reid and J. C. Scott for incorporation as the Pacific Coast Lumber Company, limited liability, capital stock \$100,000 in \$100 shares, chief place of business, New Westminster.

—In towing a boom of logs from the upper end of Kootenay Lake to the saw mill at Pilot Bay the machinery of the "Surprise" got out of order, and as a consequence of this and a storm that blew up about the same time, which broke the boom fastenings, logs are scattered for miles up and down the lake.

—The MacLaren-Ross Lumber Co. are about to begin a survey for a line of railway from the Fraser River near Chilliwack to their extensive timber limits in the rear part of the municipality. The line will be built early next year and will be used only for getting out the logs from the limits to the river.

—C. M. Beecher, of the British Columbia Timber & Trading Company, Vancouver, reports local business exceptionally active at this season of year. Large shipments have been made to Manitoba, and a considerable trade is being developed with Ontario and Quebec. Recently an order was received from the Harbor Commissioner, Montreal, for some very large pieces of timber to be used in the construction of a dredge.

UNITED STATES.

—Extensive forest fires are raging in the Peekskill mountains, N.Y.

—The long drought that has prevailed in Maine will prove a serious loss to lumberman of that state.

—W. R. Ackley, of Chippewa Falls, has begun his contract to bank 1,000,000 feet of timber on Thornapple River.

—The Owen-Hutchinson Lumber Company, at Saginaw, Mich., wants to settle with its creditors for 45 cents on the dollar.

—The preparations for logging in Northern Michigan and Wisconsin are on an enlarged scale, the cut being largely increased.

—McDonald Bros., lumbermen and steamboat owners of Lacrosse, Wis., have assigned, \$280,000 liabilities; assets, \$300,000.

—Two years ago the Lumberman's Association of Illinois started with a charter membership of thirteen. To-day it has a membership of 213.

—To show the growth made in the industry of furnishing kindling wood, a single factory in Pennsylvania turns out 5,000,000 bundles a month.

—Murphy & Dorr have sold 650,000 feet of lumber on their dock at Bay City, Mich., to Ohio parties at \$16 straight, and 1,000,000 feet for spring delivery at \$17.50.

—Parker, Cook & Co., a big Michigan lumber firm have purchased fifteen thousand acres of timber land in Oregon, and also a controlling interest in one of the largest saw mill properties of the state.

—The estimated log cut in Wisconsin shows a considerable increase over last year, and lumber manufacturing in the state next season, will, it is expected, be without precedent.

—About 12,000 trees, chiefly spruce and fir, were shipped from Maine to New York, to be used for Xmas trees. This makes a novel and lucrative early winter business for Maine.

—Out in California they are using a steam logging scow to clean up the logs along several streams, and 15,000,000 feet are reported to have recently been taken out of the Toutle and Cowlitz rivers, that otherwise would have been hung up on the sand bars for a long time.

—Merchant & Co., of Philadelphia, have sent us a handsome little book modelled after the style of Palmer Cox's popular "Brownies," supposed to be an account of the several exhibits that this firm will make at the forthcoming World's Fair. From an artistic standpoint the book is well deserving of complimentary mention.

GENERAL.

—George Rogers, lumber, McGregor, has sold out to Logan & Co.

—The Edmondson saw mill at Uptoff was scorched on the 27th ult., to the extent of \$3,500.

—L. Russell will remove his mill from Benton, Isabella county, Michigan, to Crooked Lake, where he has 8,000,000 feet of pine.

—The favorite wood for paving purposes in Australia, is the jarrah; it is also considered best in London, England, because of its lasting qualities.

—A meteorite, found recently in the rotten roots of a willow tree at Lysabild, Denmark, was seen by the finder to fall into the tree in August, 1843.

—McLachlan Bros., of Arnprior, have closed a most successful season's business, having cut upwards of 80,000,000 feet of lumber. This is perhaps the largest cut of any firm in America.

—The growing importance of Buffalo as a lumber market is evidenced by the opening of an office here by Messrs. W. R. Creed & Co., of New York, who handle upwards of 100,000,000 feet of hemlock lumber each year.

—Diphtheria is reported to have broken out in the shanties at Little Current. Several deaths have occurred, and others are suffering from the effects. Dr. Robillard, medical health officer, says it is a very bad type of the disease.

—The large furniture manufacturing and lumber business of Henry Herrmann, of London, Eng., and Evansville, Ind., has been purchased by a syndicate of English capitalists. The timber trade done is almost exclusively in hardwood.

—Some writer has figured that the annual production of sawed lumber in the United States would load a train of cars 25,000 miles long. Adding the timber for railways, fencing, mining and export, the train would be 72,000 miles long.

—J. R. Hall, of Michigan, the veteran shingle maker, and inventor of the celebrated Hall shingle machine, has satisfied himself that the days of the circular saw shingle machine are numbered, and has invented and secured letters patent on a band saw shingle machine to supercede his other machine, which has always been considered one of the best in use.

—Alexander Beaty, aged 20, whilst working in the Frank's Bay lumber camp, for J. B. Smith & Sons, of Strachan Avenue, Toronto, was accidentally shot in the calf of the leg by a companion. The bullet went through the leg. The sufferer had to go 20 miles over water and 15 by land before a doctor could be reached and his leg dressed. He was brought to the Toronto General Hospital.

—A wealthy timber merchant, named Appelbaum, and all the members of his family, to the number of twelve, have been found murdered by blows from hatchets in a forester's house in the Government of Grodno, Russia. After securing a considerable sum of money the murderers set the house on fire. The gendarmes have arrested six persons who are suspected of the crime, but the band is said to have numbered at least twenty.

—The Master-in-Ordinary gave an important judgment on Saturday morning in the case of the Bloor Street Lumber Co., of Toronto. This was an application made to have Stephen Wilcox, H. Mullen and T. J. Hammill declared as contributors to the stock of the company to the extent of \$3,000 each. The defendants owned the premises and stock, which on the formation of the company they handed over and accepted \$3,000 each in paid-up stock in payment. The plaintiffs claimed that the stock was not paid up by this means, that the defendants should rank as creditors to the amount of property they turned over and as debtors to the amount of their stock, which was claimed to be unpaid. The master held that there was no liability upon the shares held by the defendants, and that the shares were fully paid.



—Among visitors at the LUMBERMAN office during December, were J. B. Barr, of Medonte, Ont., and R. Cruickshank, of Hamilton.

Hon. Senator Snowball, of New Brunswick, succeeds Mr. Gibson, the well-known lumber king, as one of the managers of the Canada Eastern Railway.

—The death is chronicled of W. J. Macdonald, crown timber agent of the Ontario Government at Ottawa. Deceased was 55 years of age; la grippe was the cause of death.

George E. Blake, a well-known American lumberman, a representative of the Kentucky Union Lumber Co., died on Dec. 2, as a result of a disease caused from a fall from a ladder.

—John MacBeth, for some time assistant inspector of Dominion land agencies, has been assistant crown timber agent for the Winnipeg district. The appointment is popular in Manitoba, where Mr. MacBeth is well known.

—Mr. D. Hazard, of the Clark & Hazard Manufacturing Co., of Marquette, Mich., paid the LUMBERMAN a visit a few days ago. Mr. Hazard is endeavoring to place with manufacturers here, an important patent for saw mill machinery.

—After a short illness William R. Thistle, the widely-known lumberman, died at his residence, Ottawa, Ont., on Tuesday, the 5th inst. Deceased was a director of the Keewatin Lumber Co, and the Hawkesbury Lumber Co., a member of the firm of Thistle, Carswell & Co., and of Carswell, Thistle & McKay. He has been a resident of the Ottawa section for the past 30 years, part of the time in Aylmer, and latterly in Ottawa. He was married to a daughter of the late John Egan, three daughters being left to mourn his demise. He was noted for his extensive acts of private benevolence.

There died in Brockville, Ont., in December, after a lingering illness, Lt.-Col. David Wylie, one of the best known newspaper men in Canada, his long connection with various journals of the Dominion having earned for him the title "Father of the Canadian Press." Col. Wylie was born in Scotland in 1811, and after being connected with several Scottish journals came to Canada in 1845 to take charge of the printing office of John C. Beckett in Montreal. In 1849 he accepted a position as parliamentary reporter on the Montreal Herald. He continued reporting till the burning of the parliament buildings, when he arranged to go to Brockville and take charge of the Recorder. One bit of work in Montreal Mr. Wylie always felt proud of: After the buildings were burned a "call of the Upper House" was made. The report occupied eighteen columns of the Herald, all written by Mr. Wylie with the exception of one short speech furnished by a French member. At the close of the session the house voted Mr. Wylie \$50 as a mark of their appreciation of his services.

PUBLICATIONS.

A very good idea of the amount of money it costs to successfully conduct one of the magazines of to-day is aptly illustrated in some figures regarding the editorial cost of The Ladies' Home Journal of Philadelphia. The Journal is edited by Mr. Edward Bok. For shaping the thoughts of his 750,000 women readers each month Mr. Bok is paid \$10,000 per year, and has an interest in the business besides which nets him fully twice his salary. He has a staff of sixteen salaried editors, which includes men and women like Rev. Dr. Talmage, Robert J. Burdette, Palmer Cox, Margaret Bottome, Isabel Mallon and Maria Parloa. The combined salaries of these editors exceed \$20,000 a year. The Journal spends each month \$2,000, or about \$25,000 per year on miscellaneous matter not contributed by its regular editors, and the working force in the editorial department means at least \$6,000 more in salaries, making over \$60,000 a year, and this represents but a single department of the magazine; and it is a question whether any periodical is conducted on a more business-like and economical basis than is the Journal. No wonder that J. B. Lippincott, when asked by a friend why he did not keep a yacht, replied: "A man can only sustain one luxury—I publish a magazine!"

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.



The width of a key should be one-quarter of an inch for each inch of diameter of the shaft.

Papier-mache oil cans, which are now being made, are very durable and impervious to any spirit or oil likely to be used in a machine room.

In building your chimney, don't forget to leave a door at its base by which it may be entered; nor to leave climbing irons by which it may be ascended for inspection or repairs.

Whatever kind of a chimney you have, see that it is smooth inside. The rougher it is inside, the less the draught will be. A round section costs rather more to build, but is a trifle the better shape.

The practice of running steam boilers with only one safety appliance, that of the safety valve, is an unsafe method that should be condemned by every competent engineer who finds such methods in practice. Safety valves are not infallible in their action, even those of the most improved construction, and the possibility of accident is always in existence when running by the safety valve alone is attempted. Even with every safety appliance yet invented absolute safety cannot be assured except with the most skilful attendance to be obtained. Do not, therefore, neglect one of the means that may secure safety.

The practice of expressing the economy of a steam engine in so many pounds of coal per horse power per hour has been almost universal in the past, and though some few engine-builders are using a different standard, the former may still be considered the prevailing method. Certainly nothing could be more fallacious than to speak of the consumption of fuel by the engine, which consumes steam only, or should if proper conditions exist. An improved automatic cut-off engine is sold under a guaranty of say 3 pounds of coal per horse power per hour. How does the maker arrive at this figure, not knowing the economy of the steam generator? With an average boiler performance the quantity of steam supplied to the engine on the above rating will be that due to the evaporation of about seven pounds of water evaporated per pound, or 21 pounds of water per three pounds, from and at 212° Fahr. Therefore the economy of the engine should be rated as 21 pounds of water per horse power per hour, instead of three pounds of coal.

On the first day of any month in the year any one may make the cold-blooded statement that during the month to come at least 18 or 20 boilers will explode, anywhere from 12 to 30 lives will be lost, and thousands of dollars worth of valuable property destroyed, to say nothing of the suffering and distress of those whose injuries are less than fatal or whose loved ones and bread-winners are thus cut off; and be, in 99 cases out of 100, within the truth when the month is ended. Just as certainly as two times two are four is it certain that an iron structure will not give way without being subjected to a pressure greater than the inherent resistance of the construction to rupture. No boiler explosion ever occurred in which either the pressure was not allowed by carelessness or ignorance to exceed the normal strength of the boiler, or in which the normal strength of the boiler was not impaired until it was insufficient to withstand the pressure to which the structure was subjected. Both of these contingencies can be eternally and positively prevented by careful and intelligent supervision. The steam boiler is an absolute necessity in the present industrial age. It is furnishing to-day a power equal to double that of the total working force of the world's population. Intellectually used it is as safe as a kitchen stove, and in the interests of humanity and of industrial progress, it behooves all who are interested in the manufacturing arts to assist in removing this eternal blot which exists upon the otherwise beneficent service which steam has rendered to mankind; a service exceeding that of any other agent of ancient or modern times, without which our present civilization and our future progress would be alike impossible.

TRADE REVIEW.

Office of CANADA LUMBERMAN,
Dec. 31, 1891.

THE GENERAL SURVEY.

THE LUMBERMAN for February will, we expect, be largely a statistical number. We hope to be able to lay before our readers at that time special reports of the lumber business of the year at all leading lumber points, and from the data that will be in our hands at that time to give a succinct, and, at the same time, comprehensive review of the lumber situation. The present number of the LUMBERMAN goes to press too early to enable us to secure, as completely as we are planning, all the needed information for this purpose.

The immediate situation, writing these words on the closing days of the old year, is aptly described in the lines of a familiar hymn, that tells of the "parting and the meeting." Trade for the moment, everywhere, is in statu quo. Dealers are aiming to get at what has been done for the year. While doing this very little present trade is doing, nor have they reached the time when they are giving much thought to plans of the future. They are to-day at the cross-roads.

Trade of the month; in this city it continues dull, and the conditions are aggravated by another batch of failures for the month. The cause of these, as a whole, does not differ from the causes that have before been given in these columns, as explaining the failures of October and November—the reaction of the real estate boom. Particulars of the cases referred to will be found in our news columns.

The mild weather of the month has helped business in the country to some extent, but after all no large volume of business will be done before spring, when it is reasonable to expect quite a stimulus in building in many of the smaller towns and rural sections. To a fair extent this will be the case in Ontario; reports from Manitoba and the Northwest would indicate that building operations in these provinces will be more than brisk for the spring and summer of '92.

Canadian trade with the neighbouring republic holds its own, and in some respects becomes enlarged and more prosperous.

Denny, Mott & Dickson, of London, Eng., in their circular of this month say of Canada timber: "The demand for first-class Waney Yellow Pine has been so good that the stock is already unduly small and cannot be sufficient to supply the ordinary winter demand. Square timber has not been enquired for, but is also short in stock and should command a full price. Oak and elm are also dull, but the fact must be recognized that pine as well as elm and oak have been under-imported this year and are sure of a good market sooner or later."

NEW BRUNSWICK.

The last month of the year closes with a slightly better feeling. Spruce is looking up, and the impression prevails that an increased export trade will be done in the near future. In the review of New Brunswick trade last month the figures were given of the Miramichi shipments for 1891 compared with those for 1890 and other periods. Following is the Miramichi shipments for 1891 more in detail, showing who have been the chief shippers for the year.

	Vls.	Tons.	Deals. Sctg., &c.
J. B. Snowball.....	25	17,914	15,889,028
W. M. McKay.....	19	15,146	14,137,678
Wm. Richards.....	22	15,308	13,344,999
D. and J. Ritchie and Co.....	18	10,142	9,920,784
N. B. Trading Co.....	12	8,907	8,591,443
E. Hutchison.....	10	6,803	6,134,878
Geo. Burchill and Sons.....	6	4,348	4,042,000
James Aiton.....	1	754	22,140

113 79,412 72,082,950

Palings, staves and spool wood were shipped as follows, the figures representing pieces:—

Shippers.	Palings.	Staves	Spool Squares.
J. B. Snowball.....	1,086,315		
E. Hutchison.....	9,600	472,200	
D. and J. Ritchie and Co.....	95,650		
N. B. Trading Co.....	28,725		
Wm. Richards.....	20,275		
Geo. Burchill and Sons.....	5,025		
James Aiton.....			556,441
Totals,	1,245,590	472,200	556,441

Timber was shipped as follows: J. B. Snowball, 180 tons birch, 14 tons ash, 28 tons pine and 119 tons hemlock. Shipments from Bathurst to trans-Atlantic ports during the season of 1891: St. Lawrence Lumber Company (Limited), 15 vessels, 7,698 tons, 7,175,000 superficial feet of deals, boards, ends, etc., 268 tons birch timber.

QUEBEC.

It cannot be said that this province has experienced a prosperous lumber year. Rather the reverse has been the case. The export trade from Montreal to South America has apparently taken to itself wings, and gone no man knoweth where. During this year only one vessel, carrying 507,000 feet, departed for Buenos Ayres. Last year five cargoes containing in all 3,860,000 feet were shipped South, while in the previous year thirty vessels took 23,000,000 feet to South America. Very little square timber has been shipped from Quebec this year. When stock has changed hands the owners have preferred that it remain where it is, than to wait customers across the Atlantic. Eight million feet were wintered at Quebec last fall and of this there is only 1,500,000 that has not changed hands.

MANITOBA.

With this province no activity is to be expected during the winter months. Building necessarily ceases, even though the weather this year is exceptionally mild for Manitoba. The planing mills are kept fairly busy in anticipation of the building boom, which all hands agreed is a sure article for the spring.

BRITISH COLUMBIA.

Somebody in describing the situation here has said it is as "dull as ditch water." Perhaps things are not as bad as they seem, but it is true that the lumber trade is slow. A little is being done locally, rather more than might be expected at this season of the year, but a greater business than this is needed to keep moving the means, method and machinery that have a place in the lumber world of the Pacific coast. Dependence for a large part of the output rests on the export trade with Australia and South America, and this trade is nowhere these days. A glimmer of hope hangs around the trade of the Argentine Republic. It is believed matters are looking up, but no immediate effects are yet realized on the coast. In Australia, conditions could hardly be worse. The Commercial News, of Winnipeg, is authority for the statement "that a cargo of lumber from the Sound was sold, ex-wharf, Melbourne, at £3 2s. 6d., which is about the freight rate secured by the vessel carrying it; so that the lumber is practically given away by the exporters. Such business as that will soon check further exports in that direction." Conditions are such that shippers are looking for fresh fields, and several charters have recently been made for hitherto untried markets. Lumber freights remain almost without change. Rates are decidedly steadier. An advance has been established for Shanghai. A rather unusual charter has been effected for Redwood lumber from San Francisco to Liverpool at 60s. Quotations are as follows for cargo lots for foreign shipment, being the prices of the Pacific Pine Lumber Association; rough merchantable, ordinary sizes, in lengths to 40 feet, inclusive, \$9 per M feet; rough deck plank, average length 35 feet, \$19; dressed flooring, \$17; pickets, \$9; laths, 4 feet, \$2. For local trade, the Rock Bay Saw Mill quotes: Rough lumber, per M, \$10; laths, per M, \$2.50; shingles, per M, \$2.25.

UNITED STATES.

If we except the northwest, where considerable lumber business is being done, it cannot be said that trade elsewhere is possessed of much buoyancy. This is not disappointing, for the time of the year has come when lumbermen expect to rest on their oars, holidaying some, as other people do, and spending the needed time in wisely taking an account of the season's work, with a not unfrequent peep into the future. The somewhat active trade in the North-West is due to the good crop of that section. Money is more plentiful in rural parts and farmers are engaged in building operations. East, this revival is expected in the spring. Prosperity in business at these points depends upon the activity of general business and the condition of real estate, and these immediate effects of the abundant harvest have not been felt. Cotton is down, and in sympathy with this leading product of the south, lumber trade in the south is quiet.

The spruce trade is reported to be improving. A Portland paper says that "the lumber trade with the Argentine Republic, which has been almost stagnant for the past two years because of the financial crisis in that country has begun to revive somewhat, and the great lumber sheds on the Portland wharves, which have been so quiet and deserted, with their piles of nicely-sorted boards, joists, etc., untouched, are once more the scenes of life and activity. One firm has sent three cargoes since July, and a large four-masted schooner is now loading at their shed." Viewing the year's business as a whole the summing up of a lumber contemporary, usually well informed on American trade conditions, is given in these words: "While the lumber trade has met reverses and disasters here and there, it has weathered the financial gales of 1891 most nobly, probably better than any one other great department of trade, and that while margins have been narrow and gains small, there has, on the whole, been a manifest and decided advance, and the lumber trade to-day is in stronger hands and stands upon a firmer basis than it did a year ago, and at the same time the outlook for the immediate future is incomparably brighter."

FOREIGN.

English timber trade is putting on a brighter face in conspicuous contrast to the long period of dullness that has prevailed in this market. A degree of activity, quite unusual at the end of the year, prevails in the London market, and an increased demand for certain classes of stock, notably pitch pine, have enabled holders to obtain improved prices. The Scottish market is quite active. Shipbuilding on the Clyde is fair, and an encouraging outlook exists in this branch of trade. The first wood-laden cargo has entered the new Manchester canal; this consisted of a load of spruce deals. It is expected that the opening of this means of water communication will lead to an increased trade with Canada. Business in Australia is very depressed, and recent heavy arrivals of Norwegian and Scotch dressed flooring, lining and weather boards, as well as Oregon undressed timber, it is said, have tended to unsettle prices, and in the present state of the market holders are said to be accepting all kinds of prices in order to effect sales. Australia is just now experiencing the reaction that seldom fails to follow too big a building boom. They have had the boom; now they are enjoying the sequel.

TORONTO, ONT.

TORONTO, Dec. 31, 1891.

CAR OR CARGO LOTS.

1 1-4 in. cut up and better.....	32 00	33 00
1X10 and 12 dressing and better.....	18 00	20 00
1X10 and 12 mill run.....	13 00	14 00
1X10 and 12 dressing.....	14 00	15 00
1X10 and 12 common.....	12 00	13 00
1X10 and 12 spruce culls.....	10 00	11 00
1X10 and 12 mill culls.....		9 00
1 inch clear and picks.....	24 00	25 00
1 inch dressing and better.....	18 00	20 00
1 inch siding mill run.....	14 00	15 00
1 inch siding common.....	11 00	12 00
1 inch siding ship culls.....	10 00	11 00
1 inch siding mill culls.....	8 00	9 00
Cullscantling.....	8 00	9 00
1 1-2 and thicker cutting up plank.....	22 00	25 00
1 inch strips 4 in. to 8 in. mill run.....	14 00	15 00
1 inch strips, common.....	11 00	12 00
1 1-4 inch flooring.....	14 00	15 00
1 1-2 inch flooring.....	14 00	15 00
XXX shingles, 16 inch.....	2 30	2 40
XX shingles 16 inch.....	1 30	1 40
Lath, No. 1.....	1 70	1 90
Lath, No. 2.....		1 70

YARD QUOTATIONS.

	F. M.
Mill cull boards and scantlings.....	5 00
Shipping cull boards, promis- cuous widths	13 00
stocks	14 00
Scantling and joist, up to 16 ft	13 50
" " " 18 ft	15 00
" " " 20 ft	16 00
" " " 22 ft	17 00
" " " 24 ft	19 00
" " " 26 ft	20 00
" " " 28 ft	22 00
" " " 30 ft	24 00
" " " 32 ft	27 00
" " " 34 ft	29 50
" " " 36 ft	31 00
" " " 38 ft	33 00
" " " 40 to 44 ft	37 00
Cutting up planks, 1 and thicker, dry	25 00
" board 18 00	24 00
Dressing blocks	16 00
Picks Am. inspection.	30 00
1 1-2 in. flooring, dres'd	26 00
" " " rough	18 00
" " " dres'd	25 00
1 1-4 in. flooring, un- dressed, B.M.	16 00
1 1-4 in. flooring, dres'd	18 00
" " " undres'd	12 00
Beaded sheeting, dres- sed	20 00
Clapboarding, dres'd.	12 00
XXX sawn shingles per M.	2 60
Sawn lath.	1 90
Red Oak	30 00
White "	37 00
Basswood, No. 1 and 2	28 00
Cherry, No. 1 and 2	50 00
White ash, 1 and 2	24 00
Black ash, 1 and 2	20 00

MONTREAL, QUE.

MONTREAL, Dec. 31, 1891.

Pine, 1st qual., per M\$	35 00	40 00	Oak	40 00	60 00
Pine, 2nd	22 00	25 00	Walnut	60 00	100 00
Pine, shipping culls	13 00	16 00	Cherry	60 00	80 00
Pine, 4th qual., deals	10 00	12 00	Butternut	22 00	40 00
Pine, mill culls	8 00	10 00	Birch	15 00	25 00
Spruce	10 00	12 00	Spruce timber	13 00	16 00
Hemlock lumber	8 00	10 00	Hard maple	20 00	21 00
Hemlock timber	9 00	17 00	Lath	1 80	1 90
Ash	13 00	18 00	Shingles	1 50	3 00
Basswood	12 00	20 00	Shingles, cedar	1 50	3 00

ST. JOHN, N.B.

ST. JOHN, Dec. 31, 1891.

Table listing lumber prices in St. John, N.B., including Spruce deals, Pine, Deal ends, Scantling, SHINGLES, CLAPBOARDS, FLOORING, DRESSED, MISCELLANEOUS.

OTTAWA, ONT.

OTTAWA, Dec. 31, 1891.

Table listing lumber prices in Ottawa, Ont., including Pine, 1st qual., Pine 2nd, Pine shipping culls.

BOSTON, MASS.

BOSTON, MASS., DEC. 31.—The lumber market at this point is perfectly lifeless. No business worth naming is being done, and dealers will be joyfully surprised if any important change shows itself before spring.

WESTERN PINE—BY CAR LOAD.

Table listing Western Pine prices by car load, including Uppers, 1 in., 1 1/2 and 2 in., Selects, 1 in., etc.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing Eastern Pine prices for cargo or car load, including Nos. 1, 2 and 3, Ship's bds, etc.

SPRUCE—BY CARGO.

Table listing Spruce prices by cargo, including Scantling and plank, Yard orders, etc.

LATH.

Table listing Lath prices, including Spruce by cargo.

SHINGLES.

Table listing Shingles prices, including Spruce, Pine, No. 1.

OSWEGO, N.Y.

OSWEGO, N.Y., DEC. 31.—A fair trade is being done, without indications of things being anyways lively throughout the winter. Navigation is of course closed.

WHITE PINE.

Table listing White Pine prices, including Three uppers, Pickings, No. 1 cutting up, etc.

SIDING.

Table listing Siding prices, including 1 in siding, cutting up, 1 in dressing, etc.

IX12 INCH.

Table listing IX12 Inch prices, including 12 and 15 feet, mill run, 12 and 15 feet, No. 1 and 2, etc.

IX10 1 CU.

Table listing IX10 1 CU prices, including 12 and 13 feet, mill run, mill culls out, etc.

IX14 INCHES.

Table listing IX14 Inch prices, including 12 and 13 feet, No. 1 culls, 14 to 16 feet, mill run, etc.

IX15 INCHES.

Table listing IX15 Inch prices, including 6, 7 or 8, mill run, mill culls out, etc.

SHINGLES.

Table listing Shingles prices, including XXX, 18 in. pine, Clear butt, 18 in. cedar, etc.

LATH.

Table listing Lath prices, including No. 1, 1 1/2, No. 1, 3/4.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., DEC. 31.—Lumbermen are in fine feather. Trade has been good throughout the month, some dealers claiming that they never had a better December. Stocks are badly broken, and the dealer who has anything approaching a well assorted stock is in luck.

WHITE PINE.

Table listing White Pine prices, including Up'rs, 1, 1 1/2, 1 1/2 and 2, Shelving, No. 1, 13 in, etc.

BOX.

Table listing Box prices, including 18 in. XXX, clear, 18 in. XX, 6 in. clear, etc.

SHINGLES.

Table listing Shingles prices, including 16 in., *A extra, 16 in. clear butts, etc.

ALBANY, N.Y.

ALBANY, N.Y., DEC. 31.—This month marks, as it always does, the removal of Albany dealers from the lumber district to their winter offices "up town." The canal closed business for the season on the 5th inst., and navigation, though in a sense open, is practically closed.

WHITE PINE.

Table listing White Pine prices, including 1 to 2 in., good, 1 to 2 in., 4ths, 1 to 2 in., selects, etc.

THIRTEEN FOOT STOCK BOARDS AND PLANK.

Table listing Thirteen Foot Stock Boards and Plank prices, including IX10 in., up dressing, IX10 in., common, etc.

SHINGLES AND LATH.

Table listing Shingles and Lath prices, including Shingles, cedar mixed, Lath, pine, etc.

SAGINAW, MICH.

SAGINAW, MICH., DEC. 31.—The month is a holiday month and Michigan lumbermen are prepared evidently to fall in with the common custom. Between times they amuse themselves taking a retrospect of the past, and discussing possibilities for the future.

learned from the following figures for the season commencing April 11th and closing Dec. 1st, about 7 1/2 months. For this period there were 721 arrivals and 803 clearances of vessels engaged in the lumber carrying trade. Of the arrivals, 269 were steam barges and 452 tow barges; and of the clearances 295 were steam barges and 508 tow barges.

FINISHING LUMBER—ROUGH.

Table listing Finishing Lumber—Rough prices, including Uppers, 1, 1 1/2 and 1 1/2, Fine common, 1 in, etc.

SIDING.

Table listing Siding prices, including Clear, 1/2 in, 3/4 in, Select, 1/2 in, 3/4 in, etc.

TIMBER, JOIST AND SCANTLING.

Table listing Timber, Joist and Scantling prices, including 2x4 to 10x10, 12, 14 and 16 ft., etc.

For each additional 2 ft. add 1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.

SHINGLES.

Table listing Shingles prices, including XXX 18 in. Climax, 18 in. X (cull), etc.

LATH.

Table listing Lath prices, including Lath, No 1, white pine, Lath, No. 2, W. pine, Norway.

NEW YORK CITY.

NEW YORK, DEC. 31.—The continued open weather has had a certain stimulating effect on the lumber trade. Contract building has been pushed ahead with energy, and deliveries of lumber for this purpose have continued longer than expected.

WHITE PINE—WESTERN GRADES.

Table listing White Pine—Western Grades prices, including Uppers, 1 in., Box, in., Thicker, etc.

BUILDING TROUBLES IN TORONTO.

THE after effects of the real estate boom in Toronto are still being felt. Builders, small and large, are crippled financially, as a consequence. The following assignments are reported for December:—

Peter Kennedy, liabilities, \$1,100; assets, \$509. George Halford, liabilities, \$4,000; assets nominally the same.

Webber & Ledrew, estate small. Saunders & Herod, estate small. Scott & Cross, Ontario Planing Mills, show a nominal surplus of \$12,000 over liabilities; assets mostly locked up in real estate.

A surprise to his friends is the crippled condition of the finances of Adam Armstrong, who was one of the best known builders in the city, and was supposed to be in good shape. He was a large holder of real estate and the present shrinkage in values is the cause of his troubles.

James Leighton, a west end builder, has assigned, with liabilities \$61,790 and assets \$81,900. Land poor, is again the explanation of the difficulty.



NEWS of the latest wonderful "find" comes this time from the town of Meaford, Ont. When chopping down a large elm tree, one of the landmarks of the town, a few days ago, to make room for the erection of a woolen factory, the choppers found, within a few inches of the heart of the tree, an old axe cut and a wrought iron nail. The theory of the Meafordites is that the axe mark had been made in the tree over a century ago, as the growth marks would prove.

* * * *

The commercial journals of the United States, and in some respects the lumber trade journals in particular, are discussing the question of American shipbuilding. Uncle Sam looks back with longing eyes to the time when vessels of his own building held important sway in the carrying trade of the world. We can understand that he would like to see a return of those days, for, as one contemporary puts it, "every farmer, lumberman, miner and mechanic is interested." I had a conversation a few weeks ago with Isaac Warkup, of Oakville, a gentleman engaged in flour milling. He said: "It is all nonsense for the Americans to hope to regain the water carrying trade they once possessed. I know that our friends do not like to be told this, but with all their enterprise and energy the fates are against them. I came to this country in an American vessel in 1856. Then America was doing at least one-half of the carrying trade of the world. Shipbuilding in England was in a state of bankruptcy. Conditions were serious and in their desperation Englishmen set themselves thinking on this problem. The outcome was the happy thought, a thought at once put into action, to build iron vessels. It did not take long to prove the superiority of iron over wood for shipbuilding purposes. America quickly dropped out of sight in the competition and I do not think can ever regain her position. In England iron is at her very doors, all facilities are at the water's edge, coal is abundant and cheap, labor is cheap. Our good friend Uncle Sam may squeal as he may like he cannot square himself with these conditions."

* * * *

Is it necessary that ELI should say that he wishes the many readers of the LUMBERMAN every compliment that goes with the present holiday season? A Happy New Year to every one of you, and may business boom from start to finish of 1892. I cannot expect to meet in person very many, out of the large number of lumbermen, who read this journal each month, but I feel in any case that during the past year we have learned to know one another pretty well. I am anxious that this spirit should not only continue, but that the friendship should increase the longer we are acquainted. Realize that ELI is approachable under all conditions. Throw aside any diffidence that may perchance have taken possession of you. If you have something to say, say it. Never mind even if it hits ELI himself rather hard. He will take the blow good-naturedly; and if he should hit back you will be just as good-natured—of course. My aim is to "get there," and in no way can this be more certainly accomplished than in a full ventilation of any subject under discussion. Did you ever know the real meaning of ELI? He is a hustler, a man who starts out to "get there," and does "get there" every time. Some one has said Newton would never have discovered the law of gravitation had he not been an ELI; Franklin's discoveries in electricity, and Edison's inventions in the same line are attributed to their wonderful ELI qualities. If Fulton had not been an ELI he had never conceived and carried out the idea of a steamboat. Talmage and Spurgeon in the pulpit, Tennyson and Longfellow in the realm of poetry, and Dickens and Thackeray in the field of fiction, reached the topmost rung in the ladder of fame, simply because they were born ELI's. The ability to be an ELI is not confined to those who wear a crown

or wield a sceptre, or those who can make the commerce of a country tremble with the scratch of a pen. The lumberman who conducts a successful business and "gets there" through twentieth century methods is as much of an ELI as he who controls a thousand miles of railway. To put it in a nutshell, the ELI is the man who succeeds in his chosen vocation, despite every discouragement and obstacle. There are hosts of ELI's in the lumber trade. Many of them have talked to you in this page in the year just gone. That you may the better know them we are going to adorn this page each month with portraits of a number of these ELI lumbermen. We shall ask you to look at the faces of several in the February LUMBERMAN.

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Canada's timber wealth, particularly in this province, consists so largely of pine, that I sometimes think we forget, that there is no inconsiderable supply of hardwood in the country. I was glad to have a chat the other day with Mr. John Inksetter, who hails from the county of Bruce, where a large trade is done in maple, birch and elm. His base of operations in lumber has been the town of Wiarton, where he has resided for many years, and where are located the well-known millmen, Jno. Ashcroft, R. Balstone, H. C. Biette, B. B. Miller, Jno. Kidd, Seamen and Newman, A. Jones and others. These firm's have done a satisfactory year's trade. A large portion of the hardwood cut of this section of country is handled by Toronto dealers. Though hardwoods probably lead in Bruce county, Mr. Inksetter informs me that there is considerable pine in the northern part of the peninsula. A large trade had been done in the shipping of telegraph and telephone poles to the States, but the McKinley Bill, which, as LUMBERMAN readers know, increased the duty on railroad ties, telegraph poles, posts, etc., has seriously affected this class of lumber operations. A fair trade, however, is still done in towing poles from the shores of Lake Huron to Cleveland, which can be done at a cost sufficiently low to partly at least offset the increased duty. Besides it enables those interested in the industry on the other side to secure a class of pole for which they have a preference. A very large consumer of the railway ties that are manufactured in Wiarton and vicinity is the Grand Trunk Railway. Mr. Inksetter tells me there is yet abundance of hardwood to cut in Bruce county.

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An interview with a "local lumber dealer," that has been somewhat largely copied, in whole or part, by United States lumber journals and other commercial newspapers, was published in the Toronto World about a fortnight ago. "Lumber dealer," whose name is not made known in the interview, is reported to have said that he had just returned from a business tour of the mills in the north, and that little or no lumber was being shipped from the mills. "This," says he, "is the best evidence you can get as to the state of the lumber trade; when there is no stuff leaving the mills you may be sure there is little or no demand." Then follows what has struck me as a qualification of the first statement: "In all the lumber points I visited, however, there was only one at which I found any really good lumber. The mill men had no trouble getting rid of that. In fact they could not turn out enough to supply the demand. The Americans will take every foot they can get. But the trouble is they have little need for the common lumber. Why, I know of mill men holding a good deal of last year's common cut and nearly all of this year's. Fact is, the Americans don't want our coarse lumber." These conditions are attributed to the removal of the export duty on logs, something we are told that the lumbermen are sorry they asked for. One thousand men, it is alleged as a result of this policy, have gone to the States. Americans who had established mills on this side have removed the whole or part of their plant across to their own side. "What is more, the mill men at Midland, Penetang, Waubashene and other places now find it better to sell the logs to the Americans than manufacture them into lumber and run the risk of holding the stock for some time, and perhaps even then only being able to sell them the dressing and uppers. I know of some mill men who will not now sell good lumber to an American unless he also agrees to take the common." These are strong statements. The ink, however, had

only twenty-four hours to dry when a reply appeared in the same journal from another lumberman, who makes this distinct statement: "It is a hard fact that since the United States duty on pine lumber has been reduced to \$1 per thousand feet a steady shipment of common and cull lumber has been going on to eastern and south-eastern United States points. The mill men who are holding a "good deal of last year's common cut and nearly all of this year's" must exist only in the imagination of your informant. They are not known to the trade. There has been a tremendous shrinkage in business in this city and in western Ontario, and it is the United States trade, fostered by the reduction in the duty, that has saved the lumber business from entire collapse. An examination of the lumber journals of the United States will show that Tonawanda dealers are complaining of the injury to their business from the car trade now going on from Canada;" and this statement is supplemented with the expression of opinion, in which the writer is not alone, that if our Government reimpose the export duty on logs, the United States import duty will then be advanced to \$3 per thousand feet, which it is averred would mean ruination to the lumber trade. I am going to leave it to LUMBERMAN readers to draw their own conclusions as to the weight of the two different positions that are taken by these two lumbermen. I cannot omit saying this, however, that it is news to me to be told that millmen at any point are loaded up with lumber, either coarse or select. My work brings me constantly in contact with leading lumbermen of this city and other parts, who ought to know the lay of the land, and they all tell the one story, that our piling docks everywhere are singularly free of stocks of any kind.

* * * *

"One of the largest operators in the Ottawa district" remarked to me some time ago, said Mr. A. H. Campbell, the president of the Muskoka Mill and Lumber Company, "that previous to the reduction of duty on lumber going into the United States to one dollar a thousand, that he did not receive cost for 65 per cent. of his shipments of lumber across the border. This illustrates as clearly as one could wish the advantage that has come to Canadian lumbermen by a reduction in the duty. My regret is that we have not entire free trade in lumber, which I believe would be for the general benefit of the people of both countries. In no case can I imagine that any agitation will lead to a re-imposition of the old duty; and to accomplish this our own Government has only got to re-impose the export duty on logs. It is not improbable that should the log duty be re-imposed, that the United States would retaliate by increasing the duty on lumber to \$3 or even \$4. We cannot close our eyes to this one fact that the home consumption of lumber is so limited, that if we are to have a market for the products of our forests, we must go outside for it; and a natural market is that of the States. I have read lately a letter in one of the daily papers from some one who presumes to speak for the mill-owners of the Georgian Bay territories, telling a doleful tale of the havoc the export of logs is making in closing up large numbers of mills, depopulating villages and so on. This is all moonshine. We are sawmill men ourselves, and can speak from personal knowledge. There is no such distress existing as has been chronicled by these people. Another matter, the sawing of the logs, is after all a small part of the labor that has a place between the standing tree and the manufactured lumber, and in all the work of the woods and every step necessary to the getting of the logs actually to the mill it is the workman that receives the benefit. Yes, I have read a number of the letters that have been published in American lumber journals urging that Canadian lumber be excluded from American markets. I have no idea that the United States legislators will move in this direction any more than Ottawa would take a step to re-impose the log duty. United States writers on this question say that the introduction of Canadian lumber on their markets has been the means of causing a reduction in the price of their own product. I have good reason to know that this is not the case. At the most the quantity of Canadian lumber that crosses the border is so small—the veriest drop in the bucket—that it is laughable to hear these men talk of Canadian lumber affecting the conditions of the American market."

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

REFERENCE was made in my letter of last month to the opinion entertained at least by some lumbermen that this erstwhile fertile pine state has seen its best days so far as lumbering operations are concerned. I do not say that those whose predictions run along these lines have all the facts and arguments with them, and yet, as the present season's work comes to a close, there are some conditions that give color to this view.

A number of our large operators are not only prospecting in other lumber territories, but they are making heavy investments, which must ere long draw off a measure of their attachment from this State, whilst several firms have closed business altogether and are planning operations for other fields another season.

LUMBER FIRMS MOVING OUT.

The firm of Merrill & Ring, who not long since were large holders of Canadian limits in the Georgian Bay district, closed down their mill here on 20th inst., and its machinery will be removed to Duluth, where the firm has erected a new mill. The old mill cut 18,000,000 feet of lumber the present season. The A. W. Wright Lumber Company, who have put in 30,000,000 in Gladwin county, Mich., this season, is another concern that will break camp in the spring and will make their way north. This company have about 1,000,000,000 feet of timber in Minnesota, near the Duluth & Winnipeg railroad. They will build, it is said, a road in connection with this road, and operations will commence next season. One of the oldest firms in Bay City, N. B. Bradley & Sons, have wound up their record as lumbermen. Their mill will be dismantled and the machinery removed to the upper Peninsula. This firm has been in business in Bay City since 1857, and have cut possibly 500,000,000 feet of lumber, to say nothing of the salt, shingles and lath which have been produced by the Bradley plant. A rumor is current that a sash and door factory will be built on the site of the old mill, which will be good news for Bay City if realized.

Another change, that removes from the field of active work one of the oldest lumber concerns in the state, is the closing out of the business of Ryerson, Hills & Co., whose mills on Muskegon Lake are among the historical landmarks of this section of country. By those who should know it is said that the mills of this firm have during their existence manufactured at least 1,000,000,000 feet of lumber. The members of the firm have undoubtedly amassed large fortunes as a result of their work on Muskegon Lake and have ever been highly esteemed by the community.

LOOKING TO CANADIAN PINE LANDS.

On the other hand, we find those who think the present exodus, if I may so term it, to new fields and pastures green, just a little premature. E. G. Stoddard, one of our best-known Michigan lumbermen, said in a recent interview: "I have been in the business in Saginaw now for twenty-eight years, and have seen the best period in the lumber trade. People are now looking around for other places to go to in view of the fact that the timber will soon be entirely gone. A great many are looking toward Oregon and Washington, but I don't think the time has come yet for the opening of the lumber trade in that region. My reason for thinking thus is that the market will be lacking for a long time to come. The Pacific slope is a young country, but on the whole it is pretty well equipped with buildings, and I don't think there will be much of a demand in that locality. Then, Australia is in the same condition, and the eastern market is rendered very hard of access on account of the immense distance and the mountain ranges lying between. If we had no timber it would be different, but even after Michigan and Wisconsin timber is used up we have the immense southern district besides the Canada pine lands which will surely be called into requisition."

THE WOOD FIBRE BUSINESS

is intimately connected with the lumber trades, and intelligent lumbermen are interested in a study of its several phases. Hon. J. M. Weston, of Grand Rapids, Mich., is a gentleman who is extensively interested in this business. He has a large financial concern in a company which controls the Misterlich patents for making chemical wood fibre in the United States and Canada.

He is very sanguine of the possibilities of this industry. There is in his opinion scarcely any limit to the variety of articles that may be made from wood fibre. "All that is needed," says Mr. Weston, "is a mould in which to press the fibre and sufficient pulp to hold it together and you will have a door that is one solid piece of wood, and which will be light, strong and will not decay or warp. Perhaps you do not know that if the resinous substances are extracted from wood you have gotten rid of all that causes decay, and the fibre left is like a piece of cotton in whiteness and fluffiness? The uses to which this is put are many. For some time past a factory at Port Huron has been making underclothes from wood fiber, which equal in every respect those made of wool. It is made into hats, blankets, pails, washtubs, trunks, basins, pitchers, and a hundred other things which are indestructable unless you break them with an axe. Professor Misterlich is now taking out patents for machines which will weave and spin the wood fiber the same as cotton or wool.

PIECE STUFF.

McKeon and Glover, of Bay City, now have 30,000,000 of logs on the skidways in your country. They are logging about 17,000,000 feet on the Gladwin branch of the Michigan Central. This is another firm that closes their operations in Michigan with this winter. They have handled during the season about 80,000,000 feet of logs.

Muskegan has had in some respects a phenomenal season. Usually from 100,000,000 to 300,000,000 have been carried over till spring. For the first time in the history of that market there is no more stock on hand to-day than can be handled for the local demand.

The Chippewa Lumber Company's mill, near Chippewa Lake, Mich., has been sold to the Tallapoosa Manufacturing and Hardwood Company of Georgia. The mill has a capacity of 90,000 feet daily and cost \$50,000.

The Scribner failure, at Tonawanda, continues to excite unfavourable comment here. It struck some Saginaw and Bay City lumbermen pretty hard.

Charles H. Plummer, lumberman and pine land dealer, has given mortgages to Daniel Hardin, of Saginaw, for \$40,000, as security for paper endorsed by the latter.

SAGINAW, MICH., DEC. 26, 1891.

PICA.

OTTAWA LETTER,

[Regular correspondence CANADA LUMBERMAN.]

DECEMBER may fitly be termed an off month in the lumber trade in this district. I could hardly have less to record in the line of lumber news. The mills are closed down; there is no mill news. Logging in the woods is active, but this is a class of work that is not productive of much interest for a newspaper correspondent. Shipping is quiet, as one would suppose, at a time when the shipping season is practically closed. In the offices of our several lumber concerns book-keepers and clerks are busy working towards the balancing of accounts for the year. A little later, when balance sheets have been prepared, we will learn with all necessary certainty just how the year's trade shows up.

We do know this to be the case, that the stock books will show very small quantities of lumber in the hands of any of our mill men, outside of what is already sold and is being held subject to shipping orders from purchasers. This is a factor that is expected to have a favorable influence on prices in the spring. Prices can hardly be otherwise than firm, with a strong tendency to an advance in nearly all lines.

Our exporters are looking forward to a revival of South American trade, where a fair market has usually been found for twelve-inch stock. The Export Lumber Company here is increasing its storage capacity for twelve-inch and other better grades by building a large addition to its sheds.

Mr. John Ferguson, M.P., who reached the city this week from the Madawaska district, and who holds a contract from J. R. Booth for the taking out of logs this winter, says that lumbering on the Madawaska this winter is humming. Mr. Ferguson's work is limited to the removal of logs that the fire passed through last summer. He reports that the bush fires had injured a large quantity of valuable timber. When he left the bush there was hardly any snow and very little frost. The large

lakes were still open and smaller ones were but slightly frozen over. The want of snow and ice to get the logs out was severely felt.

OTTAWA, DEC. 26, 1891.

SHAVINGS AND SAWDUST.

It is claimed that a chute in the logging camp at Clifton, Oregon, is the longest in the world, being three-quarters of a mile. Its track is shod with railroad iron, and this smoothness and the sharp pitch get the logs down in twenty seconds. We would rather not try to interview one of them while taking this little excursion.

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THE match-making women at Marsilles, to the number of 650, have struck work. Their grievance is that the French wood employed by the State in this manufacture is inferior and difficult to handle, and that though the Government professes to have purchased a large stock in Russia, whence the supply was formerly derived, no promise is given them as to the date of its arrival.

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THE Lumber Worker, of Cincinnati, O., predicts an early return of walnut to its old-time popularity, basing the prophecy upon the statement that many of the largest furniture making concerns of the country are quietly buying all the walnut stock they can get, 30 cars of walnut, for example, having recently passed through Cincinnati en route to Grand Rapids, Mich. The Lumber Worker regards walnut lumber as the best stock on sticks to-day.

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A NOTE of warning to the loggers in the woods, not to be easily persuaded by the cheap jewellery pedlars, who like to play on their generosity, should not be without its effect. The money that the logger earns is well earned, and he does not need to throw it away for the first trumpety gew-gaw that is offered him by a glib-tongued notion pedlar who strikes the camp. The logger may make up his mind that these men are after him for the money they think they can make out of him. Loggers do not require any article that these men may offer them, while they are in the woods, and if it is important to procure anything of the kind, let them wait until they return to the city and patronize the store of a reliable merchant, where they will obtain value for their money.

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P. O. BYRAM, of Victoria, N.B., whose opinions on lumber matters are not unknown to readers of this paper, is again after those Americans who insist on "slaughtering our forests and driving native labour and consumption out of our country." Replying to N. C. Dymont, of Barrie, who has expressed himself as approving of the removal of the log duty, because of the reduction of duty on lumber that this step carries with it, he says: "The greatest curse that can follow the settlement of our forests is to allow the product to be slaughtered and manufactured out of the country, instead of at home; and the only way to place ourselves on an equal footing with Americans is to make the export duty on logs equal to their import duty. If the American cannot compete on these terms, other and perhaps better outlets can be had for our manufactured lumber. If Canada is to be held for Canadians it is time her resources were protected from outsiders poaching on her territory."

A POINTER FOR MACHINERY MANUFACTURERS.

NOW comes the harvest of the machinery manufacturers. Mills will be overhauled, and alterations made. In some cases new machinery will take the place of old, and in others improved machinery will take the place of some not very old that has fallen below the requirements of the plant. The lumber manufacturer knows that improved machinery means greater profits, and is willing to go to the expense necessary to make the improvements. The cut this winter in Canada will undoubtedly be above the average. This means that our lumber manufacturers will be anxious to have their mills in tip top shape for the opening of trade in the spring. The time is opportune for the shrewd manufacturer of machinery to bring to the notice of saw mill men the facilities possessed for meeting the various needs of the lumber trade. It is hardly necessary to suggest that as the only journal in Canada devoted to the interests of lumber and saw mill men the CANADA LUMBERMAN is an exceptionally valuable medium to all manufacturers who contemplate business with this industry.

VIEWS AND INTERVIEWS.

Canada a "Wooded" Country

Our contemporary, the Journal of Commerce, of Montreal, devotes considerable space in a recent number to a discussion of the saw-log question. It points out that this subject does not receive the attention it deserves, "considering the enormous interests involved." It attributes this indifference to the fact that lumbering operations are usually conducted away from the regular centres of commerce, and are consequently less in touch with general trade conditions. The common expression, "Canada is a 'wooden' country," is paraphrased to read, it is believed, with greater accuracy, "Canada is a 'wooded' country." These are the facts that support such a claim:—In 1889 the timber cut in Canada, on which dues were paid, was as follows, as given in the year book issued by the department of agriculture:

	Ontario and Quebec.	N. B. and Nova Scotia.	Other Provinces.
Saw logs, B. M.	1,248,804,546	190,236,547	169,849,654
Square timber, cu. ft.	5,720,068	23,800	
Cedar, lineal feet.	104,059	4,063,549	

The provinces received \$2,211,127 dues on this timber, but these figures fall enormously below the total production of timber, as vast areas on which lumbering operations are carried on, all woods and forests, where no dues are paid, are not included in the official returns above quoted, as they ought to have been when compiled. The exports amounted to \$26,071,000 equal to 27 per cent of the total exports. It would be difficult to say how much capital is employed in the trade, or to how many of our people it finds sustenance, but the figures are large. In 1881 the mills used up \$21,134,000 worth of raw material and the output was valued at \$39,326,000. The men engaged in lumber industries are many scores of times greater in number than those in many minor manufactures, all combined. Simcoe County alone has 150 saw mills; three firms there cut an aggregate of 110,000,000 feet yearly, while at Ottawa and vicinity the cut is admittedly much over 500,000,000 feet. Taking these facts, as the bed ground for its argument, the Montreal journal goes on to show what all this means as an element in our national life, as an indication of active capital, and distributed wealth and maintaining an army of industry, closing with these words: "We are not so busy in our industries, nor are we so rich either, as to afford the sacrifice of large revenues derived by Canadian carriers by land and water, from lumber freights. Canada needs all possible employment for her people, and every dollar she can possibly retain, spent in her own borders. It is folly most gross to hand over such vast sources of wealth to a foreign nation. If not 'drawers of water' for our neighbours, the confining ourselves to the supplying them with saw-logs, certainly makes us 'hewers of wood' for their service and profit."

An Editor Interviewed.

In another paragraph we have given the views of the editor of the Chicago Timberman on lumbermen's conventions. When at the mercy of the interviewer the editor also gave his opinions on the lumber trade of the United States, a subject not without interest to Canadian lumbermen. He said:—A superficial view of the business situation with respect to lumbering during the eleven months of the current year that have elapsed, would lead to the conclusion that things have been in a uncommonly bad way. Complaints of dullness have been heard in all sections of the country, and in connection with all branches of trade, but in reality the southern lumber business has suffered the most. The traffic in 1890 was unprecedentedly large, and more than usually remunerative. The stocks of lumber, as fast as produced, went directly into consumption. There was no speculation nor forestalling. The trade was, by every rule of calculation, profitable. This year, with a slight demand from South American countries, and a general slack demand from abroad, the yellow pine producers have, especially for south manufacturers, aspired to get as much domestic business as possible. The competition has been so close and the demand from the agricultural sections so light, that prices were materially reduced. It is this condition of affairs that confronts the manufacturer at the beginning of the winter. In the west conditions were reported more favorable, and

these have been further enhanced by the rich grain harvests. In the south the big cotton crop now being moved has come in for a large share of the bankers' accommodation, while the lumbermen, who do business twelve months in the year, are set aside during the cotton season to a large extent, both in financial favors and transportation facilities. These features are embarrassing just now, but ye editor is hopeful of another era of strong prices and active markets for the yellow pine producers at an early day.

The lumber journals of the United States are well filled up for the past month with reports of lumbermen's conventions at different points. We make mention of this matter to ask the question, why not a lumberman's convention for Canada, or at least for this province? The season's business is about concluded and the time is opportune for our lumbermen to get together and talk over matters of mutual interest to all engaged in the lumber trade. Other branches of trade in Canada have their conventions, why not the lumbermen? This is not the first time that the matter has been referred to in these columns, but our lumber friends here have not got anywhere yet. Speaking of the advantages of these occasional gatherings, the editor of the Chicago Lumberman, interviewed at New Orleans by the daily press, during the convention of lumbermen held in that city the early part of the this month, said:—"The lumber organizations, such as meet here to-morrow, are valuable agencies. They serve to destroy foolish methods of competition; to mollify antagonistic elements in the business; to inform the world of the volume of this important branch of commerce, and give an exhibition of harmonious methods, after such legislating and planning as are required have perfected the machinery of the association." It will hardly be claimed that there are not like benefits to be secured as the result of a meeting of Canadian lumbermen. It is just a matter of getting the ball rolling. Who will start it?

"AMERICAN MARKETS FOR AMERICAN LUMBER."

A REPLY BY MR. J. BERTRAM, TORONTO.

THERE is a woeful ignorance of tariff conditions shown in the correspondence on Canadian lumber affairs that the Northwestern Lumberman, of Chicago, has been publishing for a few weeks past. If our contemporary would follow the advice it essayed on one occasion to give to another, and place before its readers a reprint of the McKinley Bill, we would hear less nonsense talked of the occult influence Canadian diplomats are alleged to have exerted over American statesmen when the lumber tariff was under consideration. In our editorial columns we have some further reference to the question. The subject is also touched in an interview with Mr. A. H. Campbell in our ELI page. Below we publish a letter from Mr. J. Bertram, of this city, whose views on various lumber matters we have on other occasions given in the columns of the CANADA LUMBERMAN. Mr. Bertram, with his thorough knowledge of the lumber question, points out plainly a few of the errors into which Mr. Huyett, in his article on "American Markets for American Lumber" has fallen. Mr. Bertram says:

Mr. Huyett opens with a declaration that "Canadian diplomats have secured for their manufacturers a market in the States for millions of dollars in value at the expense of thousands of our manufacturers and tens of thousands of our laborers."

Canadians would be glad to believe that their diplomats had the influence imputed to them, but the facts are against the supposition. Any increase in the exportation of Canadian lumber is presumed to be caused by the reduction in duty on lumber, and this was brought about by the passage of the McKinley tariff bill, which provided for a reduction on white pine from \$2 to \$1 a thousand, board measure, leaving spruce and red pine at the old rate, and increasing the duties on railroad ties, telegraph poles, posts, etc. Therefore, the only item in the list of exports given which need be considered, or which could in any way effect adversely American manufacturers or laborers, is "boards, planks, deals and other sawed lumber," of which, according to the figures given, Canada exported to the United States in 1890 \$7,744,454, and in 1891 \$8,412,842, a difference in 1891 over 1890 of only \$667,888, or a little less than the product of one of the Chaudiere mills at Ottawa, and this quantity (not enough to supply a good yard for one season) is represented as demoralizing and damning the whole lumber trade of the United States, and its influence is said to be felt from Maine to Texas and from Washington to Florida. It sounds absurd.

The reduction in duty of \$1 a thousand on white pine was

only made on condition that the Canadian government abolished its export duty of \$2 a thousand on logs, and in lumber circles here the opinion is held that the equivalent demanded for the reduction is far more valuable to American manufacturers than the \$1 a thousand is to Canadian mill owners, as it allows the former to obtain free logs from Canadian forests, enabling some Michigan mill owners to keep their mills running. So strongly is this view held by some parties here that repeated attempts have been made to get the export duty reimposed, their contention being that, to be fair, the United States duty should have been abolished altogether, or that at least the duty on spruce and red pine should also have been lowered.

It is not possible to verify here the figures given for 1891, as the trade returns have not been issued for this year, but the amount given under the heading, "unmanufactured not elsewhere specified," of \$5,275,144, duty free, is so large that some information on what is comprised under this head would be valuable.

The opinion is expressed by Mr. Huyett that Americans were tricked into lowering the duty on lumber, which shows a poor opinion either of the acumen or honesty of Washington representatives—an opinion that does not prevail here.

The charge is also made that "the spirit of the Canadian government was shown shortly after the enactment of the McKinley law by a trick that was played to prevent Americans from getting any advantage from a sale of timber limits located in the vicinity of Lake of the Woods," by inserting a clause in the sale that "lumber cut from the limits sold should be manufactured in the province of Ontario." This charge of trickery so lightly made could only arise through the writer's misunderstanding of the jurisdiction respectively of the dominion and provincial governments. The dominion government only can regulate export or import duties, and as all lands and timber not sold in Ontario belong to the province, the provincial government can impose any regulation it thinks fit in the sale of timber berths, so the dominion government must be held blameless. And so far as the provincial government is concerned, neither can it be charged with trickery. The McKinley tariff bill went into force on October 6, 1890. The timber berths in question were sold October 1, 1890, but the notice of sale, with the conditions attached, was issued July 2, 1890; and further, the obnoxious clause was not inserted at all in a sale of timber tributary to the Georgian bay which was made this fall.

It is claimed that Canadian mill owners immediately added the \$1 a thousand to the price of their lumber. As a matter of fact, they obtained no more for their lumber in 1891 than they did in 1890; and it seems to be overlooked that a large proportion of Canadian lumber which goes to the United States is for re-exportation to South America and the West Indies, leaving a profit on handling with United States merchants and carriers.

In discussing an international trade matter it is useless to bandy charges, impute motives or even inquire on whose side lies the advantage, as all trading must be considered for the advantage of both buyer and seller, or it would not occur. We here would be glad to cultivate more reasonable and friendly trade relations with our neighbours. The opinion seems to be held by some Americans that in trading with Canada the favor is all on one side, reasoning that they offer a market of 65,000,000 of people, and can only obtain in return a market of 5,000,000. That this idea is fallacious can be shown by examining the trade returns, the so-called balance of trade being largely in favor of the United States. For the year ending June 30, 1890, Canada sold to the United States \$40,522,810, and the same year purchased from the United States \$52,291,973, thus showing that we purchased \$11,769,163 more than was purchased from us. The favor, if favor it be, is on the side of the United States.

TRADE NOTES.

In our advertising pages will be found a list of second-hand machinery offered for sale by the Waterous Engine Works Co., of Brantford. We direct special attention to this announcement as containing a number of machines that are useful to sawmill men. They also advertise a sawmill for sale.

A manufacturer whose lists of machinery should be in the possession of all sawmill men, is F. J. Drake, of Belleville, Ont. The newest invention of Mr. Drake's is the "Canadian" Sawset, which has a number of features distinctive to this one machine. Mr. Drake is a man of strong inventive genius and has a thoroughly practical knowledge of the workings and manufacture of machinery.

In our November issue we gave a list of lumber firms that had purchased Brazel's patent snow plows from J. Muckleston & Co., of Kingston. Since then one of the firms there mentioned has placed an additional order, and orders and inquiries have been received from Michigan firms lumbering on Georgian Bay. Amongst the orders received are those from Nelson & Sons, Cheboygan, who are operating near Webbwood; Gillies Bros., Braeside, and others. This firm's "Red Top" line of peavies and cant dogs are also meeting with ready sale.

The Dodge Wood Split Pulley Co., of Toronto, have recently completed a very striking illustration of their rope transmission system at the new works of the Canadian Pacific Railway Company at Toronto Junction. The drive in this case is carried from the driving wheel on the engine over intermediate roofs and yards to the wood-working shops, a distance of 460 feet. The power is conveyed in a positive and noiseless manner, and to the complete and entire satisfaction of the railway company. All who are interested in the successful transmission of power to a distance, should see this job.

A SUCCESSFUL MANUFACTURING FIRM.

NINE years ago Mr. Bradley R. Mowry removed from the town of Lindsay to Gravenhurst, one of the progressive lumber towns of northern Ontario. There he formed a co-partnership with his two sons, Aldus and Bradley, under the firm name of B. R. Mowry & Sons. The beginnings of the business were on quite a limited scale, consisting principally in the repairing of machinery used in the many lumber and planing mills in that section of country. The business, however, grew, modestly, yet stronger and larger from year to year. In September of 1887, a terrible fire swept over Gravenhurst, laying almost the whole town in ashes, the Mowry works going down under the flames with the rest. This misfortune, however, was the stepping stone to greater things with this industrious and enterprising firm. In rebuilding they decided to do so on a much larger scale, the works to-day consisting of a two-storey machine shop 115 x 40, a pattern shop co-equal in size, and a large foundry in which casting is done daily; six engine lathes, two iron planers, two large drills, bull lathe and a large number of smaller machines are constantly at work in these shops, driven by a Baxter engine, and as it is generally necessary to work overtime, the whole works after dark are illuminated by electric light.

With the expansion of business a third son, Albert, has been added to the firm, which now consists of the father and three sons, who are the sole proprietors and manufacturers of the "Boss" shingle machine, "Boss" jointer, drag saw sapper, and knot saw machinery, and of House's patent filing machine for shingle and mill saws, as well as the manufacturers of all kinds of general mill machinery. All the partners are practical machinists, and orders entrusted to the firm can be relied upon to be executed in a satisfactory manner, while promptness in all their business affairs has ever been a feature of the house of B. R. Mowry & Sons.

TIGHT PLACES.
BY UNCLE PETER.

KIND reader, did you ever find yourself in a tight place? I think I can anticipate your answer, especially if you are a planing-mill foreman and your mill happens to be located in the country, 10 or 15 miles from the nearest machine shop.

Suppose, on a cold morning in the winter, with the thermometer down to zero, you commence with the expectation of turning out a good day's work, but before starting you find it necessary to change the knives upon your cylinder, and one of the bolts snaps off; no matter how many spare ones you may have, the broken one must be got out. That is the first matter to deal with, and no matter how loose all the rest may be, this one is sure to be tight.

Sometimes you may be lucky enough to be able to coax it out with the corner of a cold chisel, if you work carefully; but if that does not succeed, then some other remedy must be resorted to. In the end, you may be obliged to drill it out. Here the ratchet drill, if you have one (and no mill should be without one, for there is no tool that is more useful in a mill than this), will help you out. But drilling out a cylinder bolt without spoiling the thread is a nice job, and should not be resorted to until all other methods have failed. This, if nothing else, is a strong argument in favor of slotted cylinders; but as there are hundreds of machines in use with the bolts tapped into the cylinder, we must get along without them.

The surest way to get out a bolt of this kind, without injuring the thread so as to necessitate tapping it out, and putting in a larger bolt, which is always objectionable, is, first, to use a drill about one-half the size of the

bolt and drill down carefully in the centre about one-quarter or three-eighths of an inch deep, then use another drill a trifle larger, ground the opposite way, so as to cut backwards; then with the ratchet reversed, as nearly all ratchets are reversible, by forcing the drill hard in the hole already drilled and working the ratchet backwards, in about nine cases out of ten the bolt will start. Then, by carefully easing away upon the ratchet, it may be screwed out. If this plan does not succeed, then drill the small hole to the end of the bolt and work out the shell that is left, carefully, with a narrow cape chisel.

Again, you may start with every indication of having a good day's run, but without any apparent cause one of the teeth of your driving gears may drop out. Something must be done and that quickly, for the chances are that you have not a duplicate on hand to supply its place; if not, you can not afford to stop the machine and lie idle for perhaps a week until a new one can be procured from the manufacturers, perhaps hundreds of miles distant, so you must improvise some way to insert a tooth, or something that will answer the purpose until a new one can be procured. Here the ratchet drill, if nothing better is at hand, comes again to your assistance.

The gear should be put in a vice that will hold it firmly, and a piece of something, with one end secured to the bench or side of the building, and a helper at the other, will answer the purpose of a press. Then, with a drill a trifle less in diameter than the thickness of the

work, they are found to serve well as straight driving belts of not less than five inches in width. Where they have been tested side by side with leather belts, for strength and durability, they are alleged to have proved equally satisfactory, adhering very closely to the pulley, generating no electricity while running, being also flexible, and unaffected by temperature within ordinary limits.

FIRES AND CASUALTIES.

FIRES.

Wm. Atchinson & Son, saw and planing mill, Cornwall, Ont.; partly burned out.

Jacob Lawrence & Sons, Sarnia, Ont.; planing mill burned; no insurance.

CASUALTIES.

William Deering was killed at Sutton, Ont., by a falling tree.

A Chaudiere mill hand, Ottawa, Ont., named Alfred Detourney, had his collar bone broken by falling off a pile of lumber.

A shantyman named Xavier Lapointe, who lives at Gatineau Point, Ont., is home from the Madawaska, a sufferer from a broken leg.

Malcolm Kippen, while at work in the bush near Kippen, Ont., was seriously injured on the skull by a detached limb falling on him.

Alexander McCool, a lumberman, of Mattawa, Ont. is missing. He has been traced to the water's edge and it is generally believed was lost in a storm.

A riverman named Napoleon Legare, who lives in Hull, Que., and who was at work on the Pettawawa, is likely to lose his foot, which was crushed between two logs.

Alexander Dupois and Joseph Mirault, of Hull, Que., were both in the bush cutting wood, when the former's axe slipped from the handle and struck Mirault in the thigh, inflicting an ugly wound.

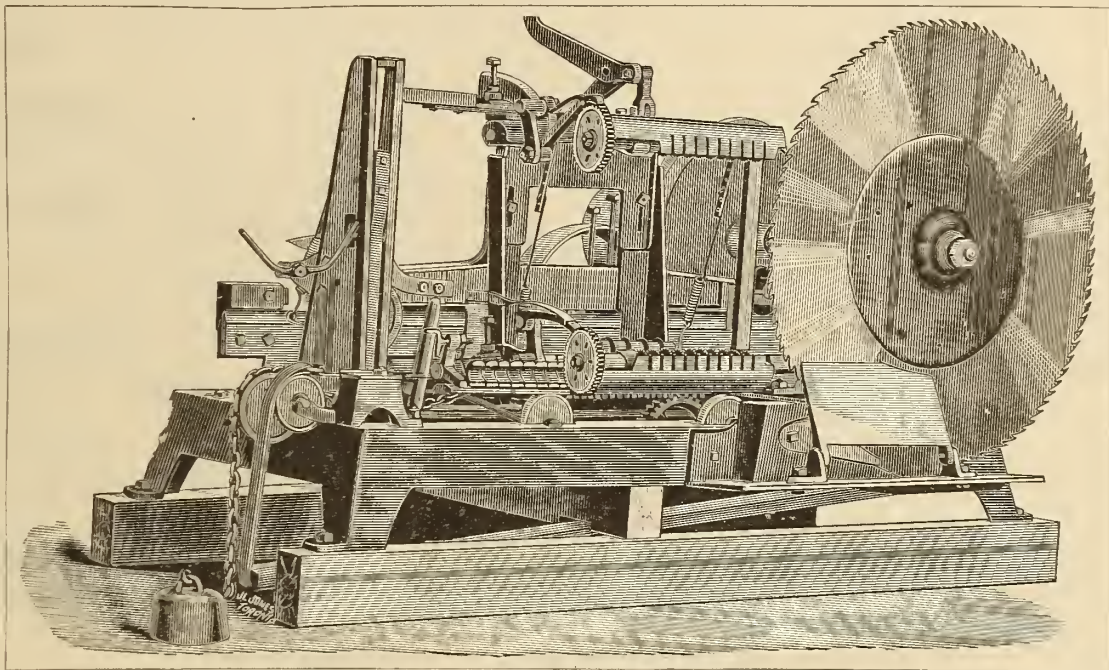
Wm. McLellan, a life-long resident of Bishop's Mills, Ont., driving from Virden, Man., to the home of his brother, thirty miles distant, in a lumber wagon, had both feet so badly frozen that it is likely both legs will have to be amputated.

As men were moving some lumber outside the dock at the cedar mill at Deseronto, Ont., a fortnight ago, the body of a man came to the surface. It was recognized as that of Michael Mannion, a mill hand, who had left them weeks before to visit relations at Tyendinago.

A teamster named Robert Saunders, working at Sapperton, B.C., was killed by falling off his wagon, loaded with wood. He leaves two young children, who are living with his father at Orillia, Ont.

OUR NEW DRESS.

IT would be shabby treatment to come before our readers in the new dress we have donned to-day and not tell them who made the stylish and well-fitting garments. The LUMBERMAN must give Miller & Richard, type foundry, of this city, credit for this handsome outfit. The body of the paper is printed from their extra hard metal Scotch type, which is known to printers in this country from the Atlantic to the Pacific. Those who are not practical printers will admire what in technical parlance printers speak of as a clean, open face type, while the printer himself knows the durability and perfectness that comes with this type, when it bears the well-known letters "M. & R." The new and handsome types that are shown in the advertising pages of the LUMBERMAN, and that give to these pages an attractiveness that will certainly be admired by our advertisers, comes also from the same firm, for as a matter of fact there is nothing necessary to the complete outfit of a printing office, small or large, that is beyond their capacity to furnish. Established as the leading type foundry of Great Britain for upwards of a century, they have for many years been ably represented in Canada by Mr. R. L. Patterson, one of the most popular men among the printing fraternity throughout the wide Dominion.



THE "BOSS" SHINGLE MACHINE.

tooth at the pitch line, the drill may be used and a couple of holes drilled in the rim half an inch deep, if the thickness of the rim will admit, and two pieces of round iron, moderately tight, but not driven hard enough to endanger breaking of the rim, fitted in. Dress off the points so as to be the same length and as near the shape of the others as possible, using the calipers or dividers to get them central. A gear repaired in the manner, if carefully done, will take but little time and will frequently run for months without any trouble; but no time should be lost in ordering a new one from the factory, as no one can tell how soon the same thing may happen again.

It is an old proverb that "necessity is the mother of invention," and if such breakdowns as occur in almost every mill that is located a long distance from a machine shop, does not call out the inventive genius of the foreman at certain times, nothing else will.

PAPER BELTS.

IT is stated on no better authority than the New York Sun that one of the largest establishments in the States has for some time been turning out paper belts that have the reputation of being superior in many respects to those of leather; that these belts are made from pure linen stock, and are of any desired thickness, width or length, having also a driving power equal to any other from an equal surface, and while it is not claimed for them that they are adapted to all kinds of

OAK TANNED BELTING

TORONTO
20 FRONT ST EAST
TELEPHONE 475

THE J.C. Mc LAREN BELTING CO MONTREAL

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WANTED FOR CASH

HALF A MILLION FEET OF ASH, MOSTLY one inch, some one-and-a-quarter and one-and-a-half inch Canada Ash, strictly firsts and seconds; must be of uniform color; also commons and one inch Elm, 1 and 2. State particulars as to stock on hand, dryness and lowest prices F.O.B. Montreal. Que.

Address all particulars to

P. O. BOX 2144,

NEW YORK,

N.Y.

WANTED TO CONTRACT

FOR 1 1/4 AND 1 1/2 IN. BASSWOOD, ALL 12 FT. long, quality 1sts and 2nds, New York inspection, to be delivered here in canal boats next summer.

Only responsible parties need apply, stating price delivered.

WHITE, POTTER & PAIGE MFG. CO.,
415 Willoughby Ave.,
BROOKLYN, N.Y.

STEEL RAILS, ETC.

SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways. 20 pair wheels and axles, all in good second-hand condition, very cheap.

JOHN J. GARTSHORE,

49 Front Street West,

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WANTED TO BUY

GOOD CANADIAN TIMBER LIMITS AND Georgian Bay saw logs. Address, BEN BIRD-SALL, Whitney Building, Detroit, Mich.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

PARTNER WANTED

TO JOIN ADVERTISER IN MANUFACTURING mill machinery and patented specialties. Must have \$3,000 to \$5,000 cash. Experience not necessary if capable of keeping books and attending to office work. Address "D," care CANADA LUMBERMAN.

SAW LOG SLEIGHS FOR SALE

VERY CHEAP, FIFTY SETS ONE TEAM SAW log sleighs, new Ottawa pattern, steel shod, made of the best material throughout, good as new. MOS-SOM BOYD & CO., Bobcaygeon, Ont.

J. J. TURNER

.. Sail, Tent and Awning Maker ..

251 George St. and 154 King St.

PETERBOROUGH

Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.

Every description of Lumbermen's Supplies and Waterproof Clothing.

MACHINERY

SECOND HAND MACHINERY FOR SALE by the Canada Machinery and Supply Co., Brantford, Ont., Dealers in New and Second Hand Machinery and Mill Supplies:—

1 12 x 16 WATEROUS DOUBLE CUT-OFF ENGINE with Pickering governors.

1 12 x 16 BECKETT SLIDE VALVE ENGINE with Judson governors.

1 9 x 15 BECKETT ENGINE, SLIDE VALVE.

1 7 1/2 x 10 NORTHEY ENGINE WITH PICKERING governors.

1 5 1/2 x 9 HORIZONTAL SLIDE VALVE ENGINE.

2 25 H.P. TUBULAR BOILERS TO BRICK IN.

2 16 H.P. TUBULAR BOILERS TO BRICK IN.

1 6 H.P. UPRIGHT LEONARD BOILER.

1 NORTHEY STEAM PUMP, 2 1/2 IN. SUCTION, 1 1/2 inch discharge.

1 WATEROUS SELF-ACTING SHINGLE MILL and Jointer.

1 UPRIGHT SWING SHINGLE MILL AND Jointer.

1 WATEROUS LATH MACHINE, THREE saws.

1 SET IRONS FOR TWO HEAD BLOCK SAW mill.

1 30 INCH J. T. NOYE MAKE, BUFFALO, hurr portable Chopper with crane and picks.

1 POWER CORN SHELLER.

1 RE-SAW BAND SAW, 40 INCH WHEELS, with two 2 1/2 inch saws.

1 BLIND SLAT TENONER.

2 ONE-SIDE MOULDERS.

1 RIP-SAW TABLE.

1 CUT-OFF SAW TABLE.

1 SHAFTINGS, HANGERS, PULLEYS, BELTING, etc., all sizes.

WRITE FOR PRICES FOR ANYTHING IN the line of Machinery and supplies to the Canada Machinery and Supply Co., Brantford, Ont. Works, Warerooms and Office, opposite the Market.

SECOND HAND MACHINERY FOR SALE.

WORTHINGTON COMPOUND STEAM pump; steam cylinders 12 and 18 in. diameter, water 10-14, stroke 10 in.; capacity 5 to 900 gallons per minute, 2 1-2 steam, 3 1-2 exhaust, 8 in. suction, 7 in. discharge, capacity 4 to 6 good fire streams; has reversible counter, first-class condition in every respect; suitable for fire and domestic supply for any sized town up to 10,000 inhabitants.

ENGINE—Cylinder 22 x 30, shaft 8 feet long, 7 1-2 in. diameter, fly wheel pulley, Corliss pattern and slides, thorough order new Pickering governor, a 10 x 16 square bed circular valve engine also square bed slide valve 10 x 12.

BOILERS—One 52 x 14, with 44 3 1-2 inch tubes; one 52 x 13 feet 8, with 66 3 in. tubes; one 52 x 13 feet 6 with 52 3 in. tubes. These boilers have been thoroughly repaired.

SAW IRONS—Waterous make, right hand, cast frame, takes 60 in. saw, 3 block carriage, peel dogs, 1 set Paxton's make, cast frame, right hand, 7 block carriage with wooden frame, axles running clear across, V and flat track.

ONE SEWRY shingle machine, 40 in. saw, thorough order.

WATEROUS PORTABLE SAW MILL can be seen at Acton station—25 h.p. engine, 30 h.p. locomotive boiler, water front, circular fire box; iron frame, friction feed and gig, 1 60 in. and 2 52 in. solid saws, 7 block carriage, 30 feet from centre to centre of first and last block, friction set, peel dogs, friction log turner, slab saw, single edger, saw dust carrier, counter shaft.

This mill is in first rate order and can be delivered immediately. Further particulars and prices of above machinery on application.

WATEROUS ENGINE WKS. CO., Ltd., Brantford.

SAW MILL BY AUCTION

THERE WILL BE SOLD AT IRONDALE, ON the Bancroft and Ottawa Railway, 10 miles from Kimmount:—

One 40 h.p. stationary saw mill, manufactured by the Waterous Engine Works Co., Ltd, Brantford, in 1888, built in their best style. The mill consists of the following machinery:—

ENGINE—12 x 14 straight line engine, with 5 in. steel shaft, fly wheel pulley;

BOILER—Boiler of best quality of steel, 52 in. diam., 14 feet long, lateral seams, double rivetted, tubes 3 1-2 in. in straight rows, beaded over at each end, 60 foot smoke stack, saw dust grates and all fittings and fixtures complete;

SAW-IRONS—One iron saw frame, right hand, with 8 in. face, friction feed and gig works, Waterous timber gauge, 3 bearings under mandrel pulley, being outside of frame;

CARRIAGE—Consists of 6 log seats, 4 mains, with 3 wheels under each, the two front wheels run in brass boxes, on a V track; 2 intermediates with 2 wheels under each. These blocks are spaced so that the first and last blocks are 36 feet from centre to centre. The carriage can be uncoupled into short lengths for ordinary sawing, it is furnished with four peel dogs, and independent action to each knee for cutting taper stuff;

SAW—One 56 in. Emerson bit tooth saw.

BULL WHEEL—One No. 5 bull wheel, chain and car;

SUNDRY machinery in the mill, viz.: Single edger with counter shaft, slab saw running at right angles to large saw, rollers behind the saw, main driving belt, originally 15 inch wide, 4 ply heavy rubber belt.

This mill is in good running order; it is situated on the Black River at its junction with the Bancroft and Ottawa Railway that switches from the railway into the mill yard.

The machinery for this mill will be put up at auction as mentioned above on Wednesday, the 13th day of January, with a fixed upset price. The mill will be sold cheap, and will be a good investment for any one with a small capital.

For further particulars address

THE WATEROUS ENGINE WKS. CO., LTD., BRANTFORD

Rochester Bros.
: : COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. **Ottawa**

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Lumber and Commission Merchant

RECEIVER AND FORWARDER OF

LUMBER, LATH AND SHINGLES

... CORRESPONDENCE SOLICITED ...

OWEN SOUND, ONT.

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MANUFACTURER OF

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LUMBER TRUCK WHEELS

The Montreal
Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Gilled

RAILROAD
WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

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SOLICITED



SCRIBNER'S
LUMBER AND LOG
... BOOK ...

OVER
ONE MILLION
SOLD

Most complete book of its kind ever published. Give measurement of all kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round timber bints to lumber dealers; wood measure; speed of circular saws; care of saws; cordwood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stove and heading bolts, etc. Standard book throughout the United States and Canada. Get the new illustrated edition of 1882. Ask your bookseller for it. Sent post-paid for 35 cents.

GEO. W. FISHER

Box 238, ROCHESTER, N.Y.

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THE
THOMSON-HOUSTON
AND
THOMSON SYSTEMS.

FOR MILLS AND
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THE ROYAL ELECTRIC CO 58 WELLINGTON ST. MONTREAL, QUE.

PORTER, ROBERTSON & CO. WHOLESALE DEALERS IN

Stocks
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.. MILLICHAMP'S BUILDINGS ..

35 ADELAIDE STREET EAST TORONTO

Yard: Northern Dock, Foot of Bathurst Street

GEO. HASTINGS JOHN GRAY H. HANCOCK

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Lumber Merchants



TRUST BUILDING CHAMBERS
COR. YONGE AND COLBORNE STS.

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ALL KINDS OF PINE AND
HARDWOOD LUMBER



BILL STUFF CUT TO ORDER
A SPECIALTY

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WHOLESALE
DEALERS IN

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Nos. 213, 214 and 215
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of eminent personages, the price of which is \$4.00 the most sumptuous and attractive PREMIUM ever offered by a review.

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THE ARENA FOR 1892

The regular subscription price of THE ARENA is the same as that of the other leading reviews . \$5.00 The price of our magnificent ART PORTFOLIO of eminent personages is 4.00 But we send THE ARENA and the Portfolio both for \$5.00 to all persons who subscribe for THE ARENA for 1892, and remit 20 cts. extra to help pay postage and packing on premium.

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OFFERS THE BEST FACILITIES FOR YARDING AND SELLING ALL KINDS OF

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ROSENBACHER & Co.
Bankers, HAMBURG

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MANUFACTURERS OF

HYDRAULIC CEMENT

Particularly adapted for Dams, Smoke Stacks, Foundations, Culverts, Cisterns, Cellars, etc.

Endorsed by Leading Railways and Contractors

ROACH LIME

FOR BUILDING, PLASTERING, GAS PURIFYING, PAPER MAKING, ETC.

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MANUFACTURERS OF



TERRA COTTA FIRE-PROOFING

For use in Old and New Buildings

Endorsed by leading Architects
Absolutely Fire-proof Deadens Noise
Does not Crack on application of Heat or Water
About as Cheap as Wood or Brick
Weight one-third that of Brick

Gives Warmth in Winter; Coolness in Summer

The Casselman Lumber Co.

Successors to FLATT & BRADLEY

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Especial Good Facilities for Shipping

HEMLOCK BILL STUFF OF EXCELLENT QUALITY
Also Manufacturers of
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MAITLAND, RIXON & CO. OWEN SOUND, ONT.

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All kinds of Building Material kept in stock

WE MAKE A LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK
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CEDAR OIL for Purging Boilers

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GALT MACHINE KNIFE WORKS



MACHINE KNIVES

OF EVERY DESCRIPTION FOR

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Send for Price List

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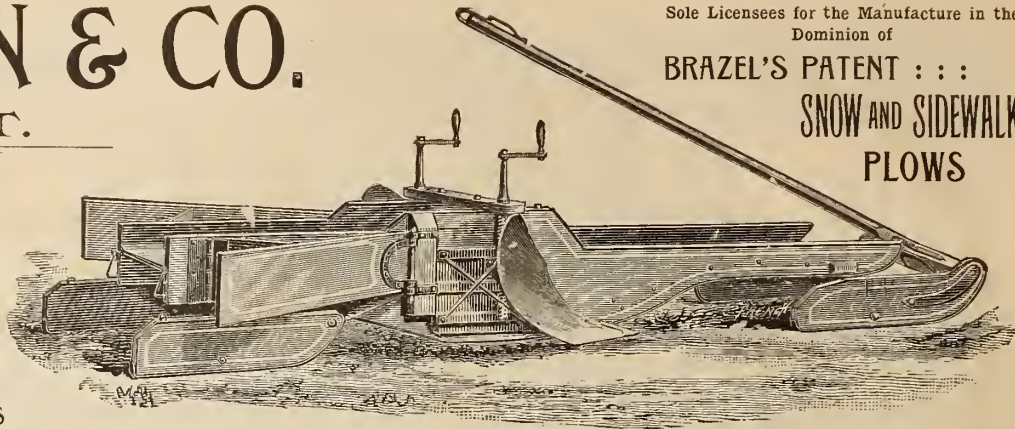
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MANUFACTURERS OF

"RED TOP LINE"

Lumbermen's Tools

Skidding Tongs, Pike Poles, Goldshuts, Lumber Bob Sleighs



Sole Licensees for the Manufacture in the Dominion of

BRAZEL'S PATENT : : :

SNOW AND SIDEWALK PLOWS

WOOD-WORKING MACHINERY



The Gold Medal

London, 1883 Toronto, 1883

For Door, Sash, Blind and Furniture Factories

PLANERS
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BAND SAWS
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BLIND MACHINERY
BAND SAW FILER

RIP SAWS
SAND PAPERERS



JOINTERS
DOUBLE SPINDLE BORER



BAND SAW SETTER
Etc., Etc.



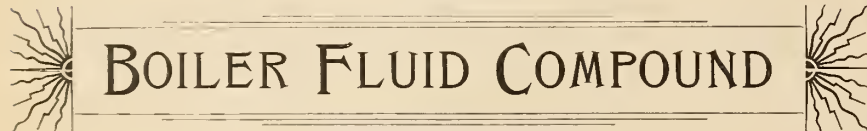
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WRITE FOR CIRCULARS AND PRICES

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PARKER & EVANS

SOLE PROPRIETORS OF THE
FAMOUS INTERNATIONAL



BOILER FLUID COMPOUND

Patented 5th March, 1877

This Compound will Save its Cost many times in one year
... by Saving Fuel ...

It eradicates scale, and when the boiler is once clean a very small quantity keeps it clean and free from all incrustation. One-fourth the dose will prevent a new boiler from scaling so long as it is used regularly.

Contains no caustic Soda, and is the only matter yet known that will not injure metals in any way, and emits a clear, pure steam.

30 William St., Montreal

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W. E. HUTCHINSON, Sec.-Treas.

The Whaley Lumber Co., Limited

of HUNTSVILLE, ONT.

Manufacturers of

White Pine Lumber, Bill Stuff, Lath and Shingles
Also HARDWOOD LUMBER

All Orders promptly attended to First-class facilities for Shipping
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Real Estate, Fire and Life Insurance

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... TIMBER LIMITS AND FARMING LANDS A SPECIALTY. ...

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CABLE ADDRESS: "ROSS"

NEW WESTMINSTER, B.C.

CORRESPONDENCE SOLICITED ... BOX 273

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LEATHER BELTING

... You all use more or less Leather Belting, and are naturally interested in knowing where to get the very best article—that which will give you the least trouble either in stretching crooked or tearing at the lace holes.

F. E. Dixon & Co.'s Union Tanned Belting runs straight and easy on the pulleys, is thoroughly well stretched and cannot be surpassed for strength and durability. Send for discounts. Our hand-book on leather belting mailed free on application.

ROUND PLAITED BELTS FROM 3-8 INCH TO 1-2 INCH

LACE LEATHER
PATENT WIRE LACING
ETC.



F. E. DIXON & CO.
70 King St. East, Toronto

TORONTO AGENCY OF

The Rathbun Co.

Are open to Purchase

Oak, Ash, Birch
Basswood

and Good Pine Lumber
Gedar and Pine Shingles

Manufacturers having such for sale are invited to communicate with

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TORONTO

Office Cor. Spadina Ave. and Front Street

WANTED

SAW MILLS

... IN ...

Little Belt and
Rocky Mountains

ALONG LINE OF

GREAT NORTHERN RAILWAY

For particulars write

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4 Palmer House Block, Toronto

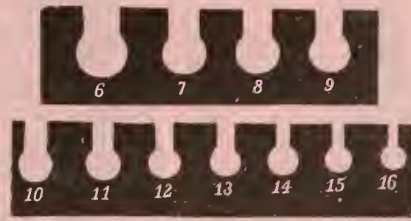
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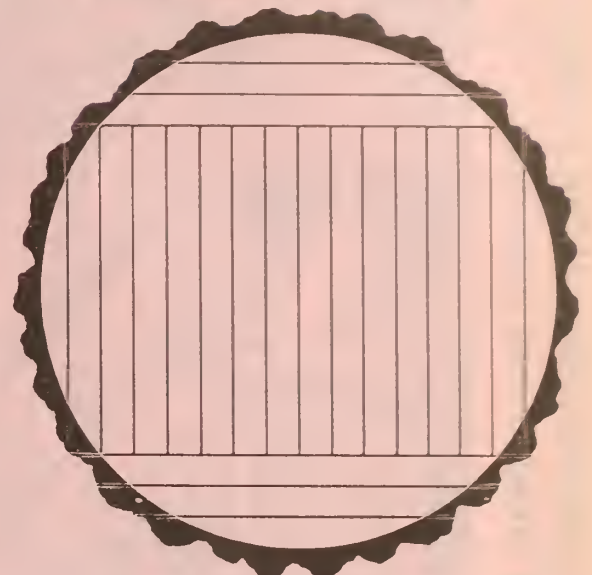
CIRCULAR SAW 7 GAUGE



NOTE SAVING BY WIRE GAUGE



BAND SAW 16 GAUGE



WHICH?

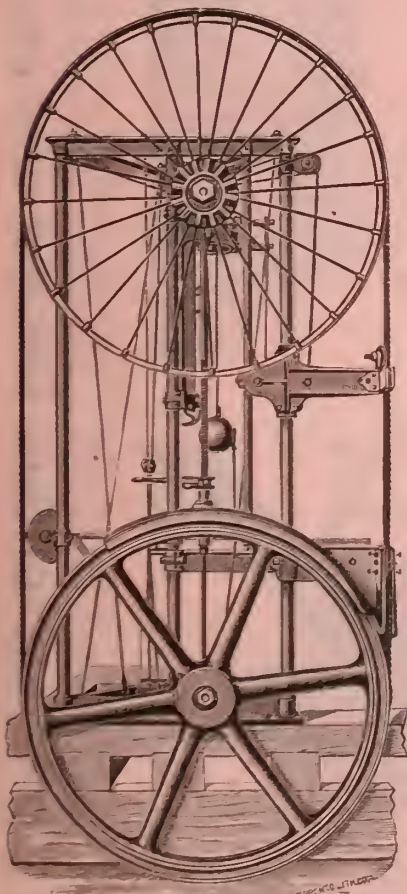
SEASON'S STUMPAGE THREE MILLIONS
COST:

Stumpage and Dues.....	\$2 50	
Cutting, Watering and Delivering at Mill.....	3 50	
Cutting and Piling.....	2 00	
Loading on Cars.....	25	
Interest on \$18,000 for 1 year at 7 per cent. \$1,260, costing per 1,000 feet on 3,000,000.....	40	
Wear and Tear of Machinery.....	35	
Three millions at.....	\$9 00	\$27,000
2,700,000 at..... \$11 00.....		\$29,700
450,000 Culls at..... 6 00.....		2,700
Profit.....		\$5,400

SEASON'S STUMPAGE THREE MILLIONS
COST:

Stumpage and Dues.....	\$2 50	
Cutting, Watering and Delivering at Mill.....	3 50	
Cutting and Piling.....	2 00	
Loading on Cars.....	25	
Interest and Expenses.....	75	
Three millions at.....	\$9 00	\$27,000
3,240,000 at..... \$11 00.....		\$35,640
540,000 at..... 6 00.....		3,240
Interest on Extra Cost of Mill, \$1,000.....		\$11,880
Profit.....		\$11,820

Loss or gain to you on season's cut is over \$6,000. Why continue to waste so much yearly in sawdust?



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BAND SAWMILL

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With the perfect Automatic Filer and other tools, the means and knowledge required to keep saws in order is brought within the reach of all. We have in our employ an expert whom we will send with each mill, and will permit him to teach any intelligent man how to use the band saw tools, and, with the rules furnished, a circular sawyer should soon become an expert band-sawman.

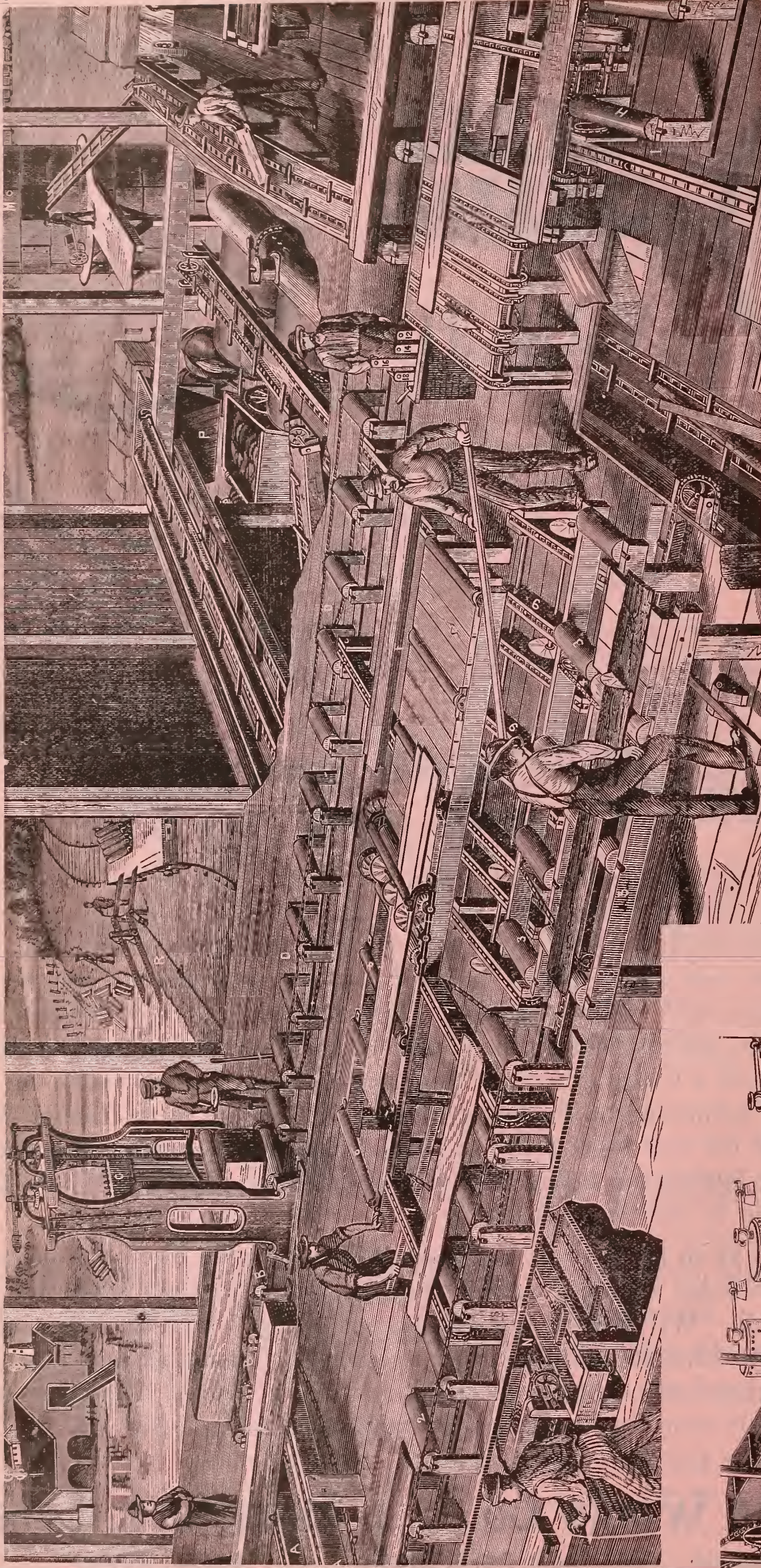
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Waterous Engine Works Co. : : Brantford, Canada

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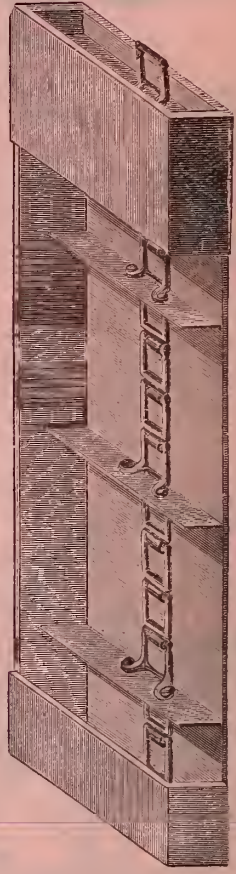
Patent Link Belt ^{plus} Steel Cable Conveyors

For Conveying and Handling all the Products of the Forest, Farm and Mine



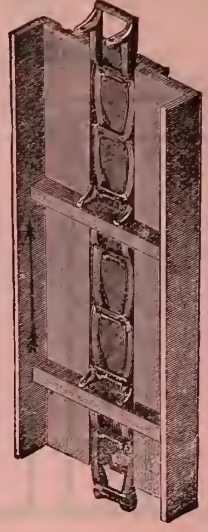
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HEAVY REFUSE CONVEYOR

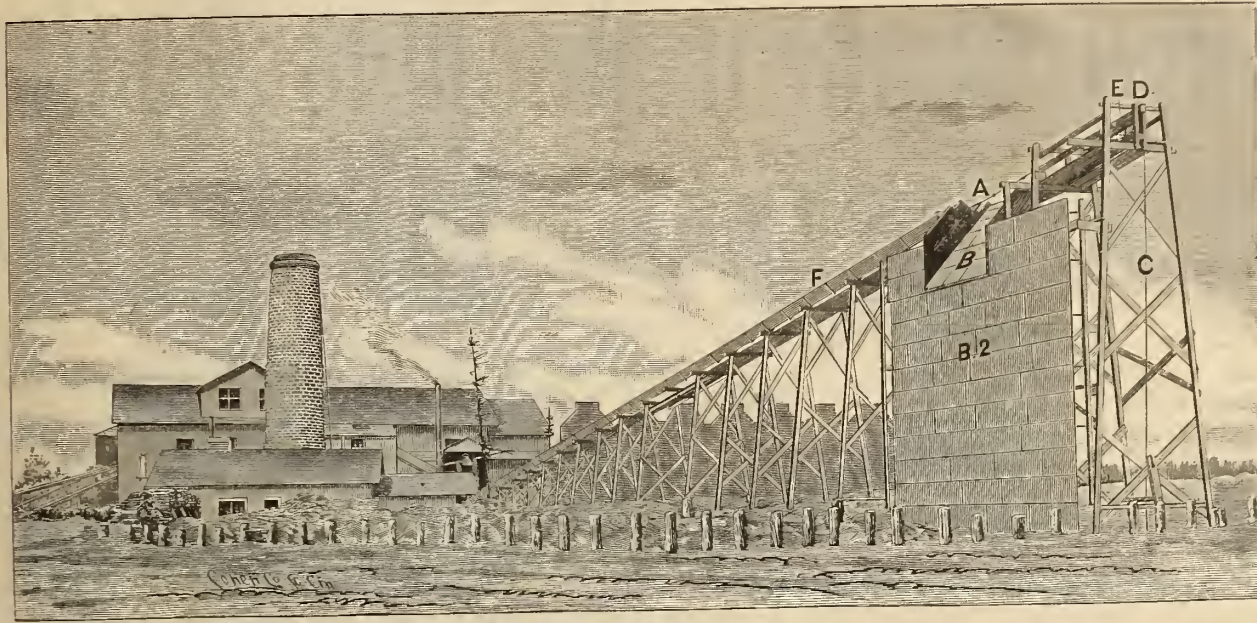
Using 66, 67, 77, 85, 103, 108, 600, 1200, for mills cutting 15 to 100 M. per day; 600 and 1200 will carry all refuse.



No progressive, live sawmill man can afford, in these days of close competition, to be without these labor-saving, hence money-saving appliances, specially since the price has been greatly reduced. Send us full description of your wants, giving distances between centres and bulk to be conveyed, and estimates will be given promptly.

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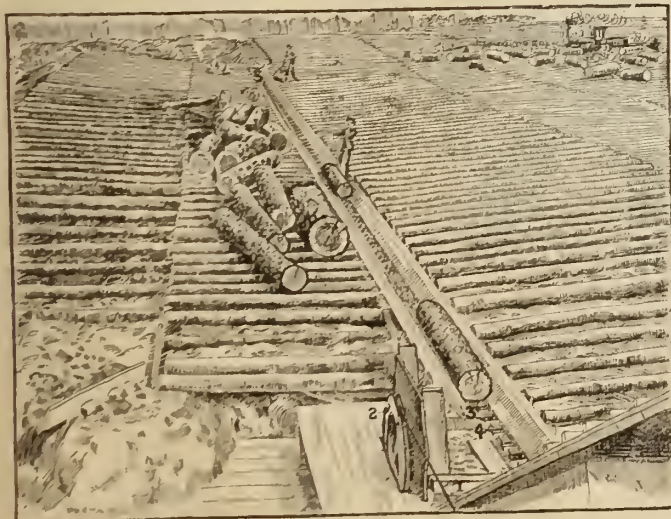
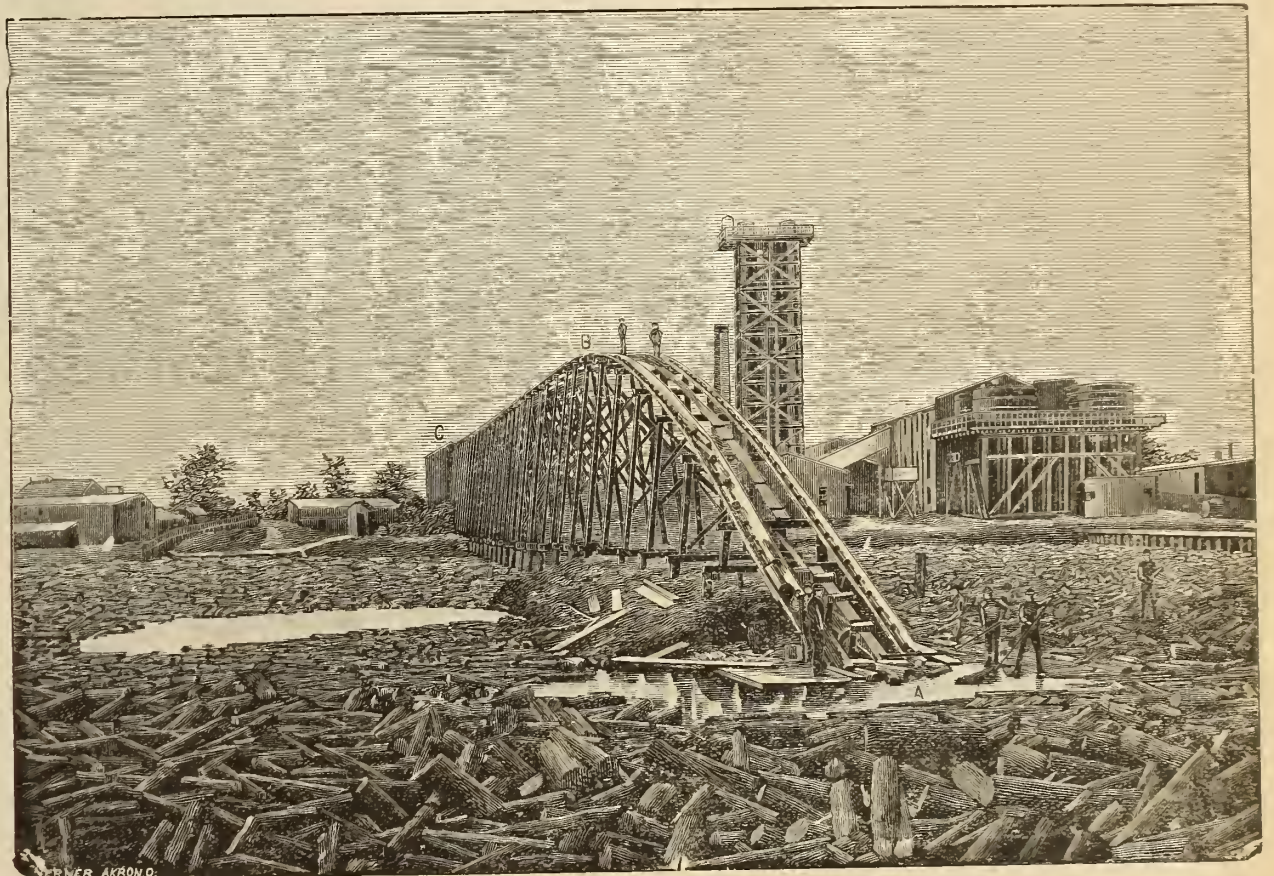
The Cast-iron Clamps

fastened to Cable take all the wear in trough, also on wheel, and do all the driving.

Driving Wheels

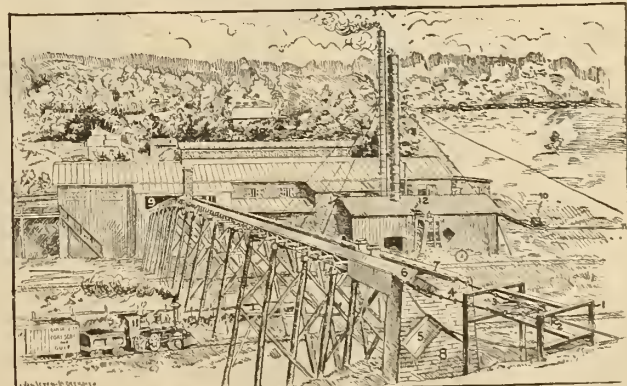
are gapped with the exactness of cut gear. No wear on Cable.

... We have examined Refuse Conveyors after 2 years' use, and the cable was not even brightened.



SEND FOR ESTIMATES and REFERENCES giving distance between centers and material to be handled

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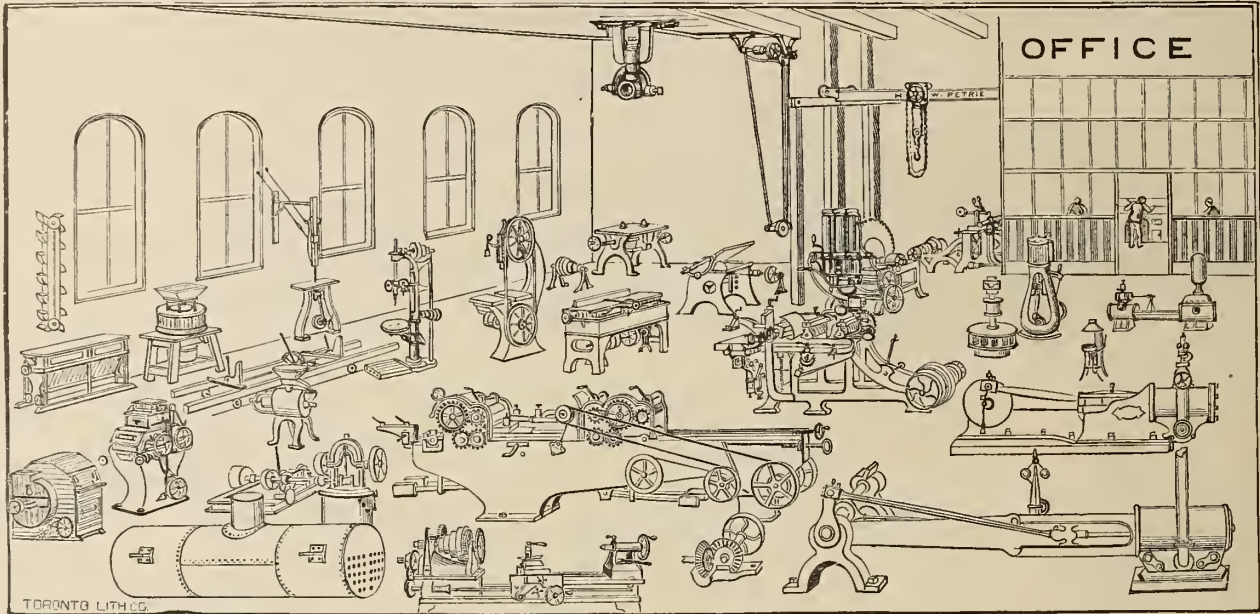


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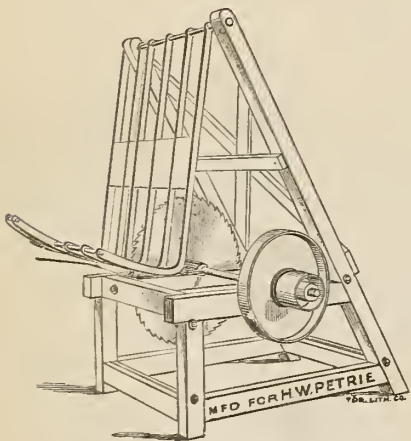
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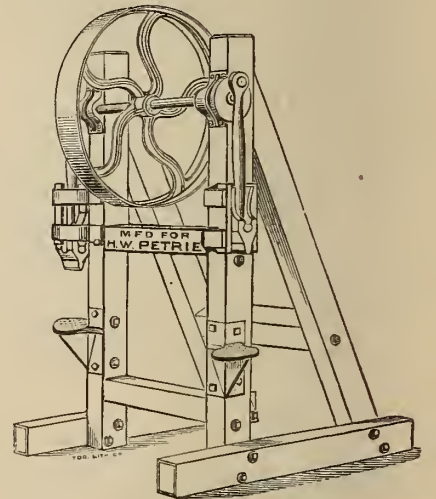
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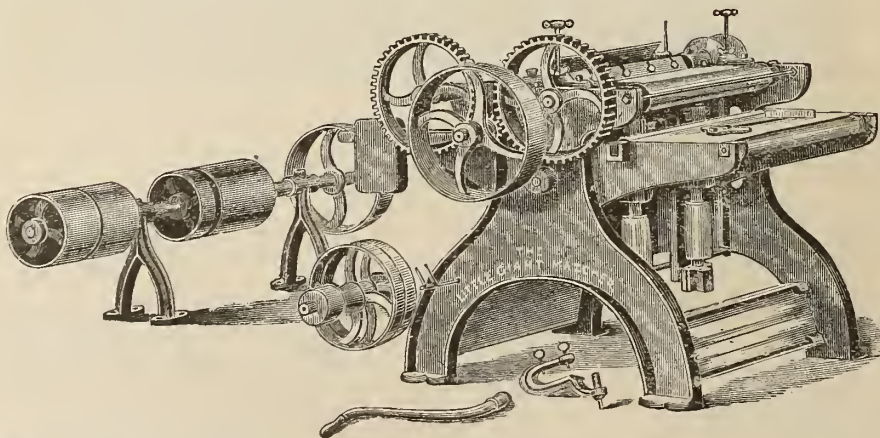
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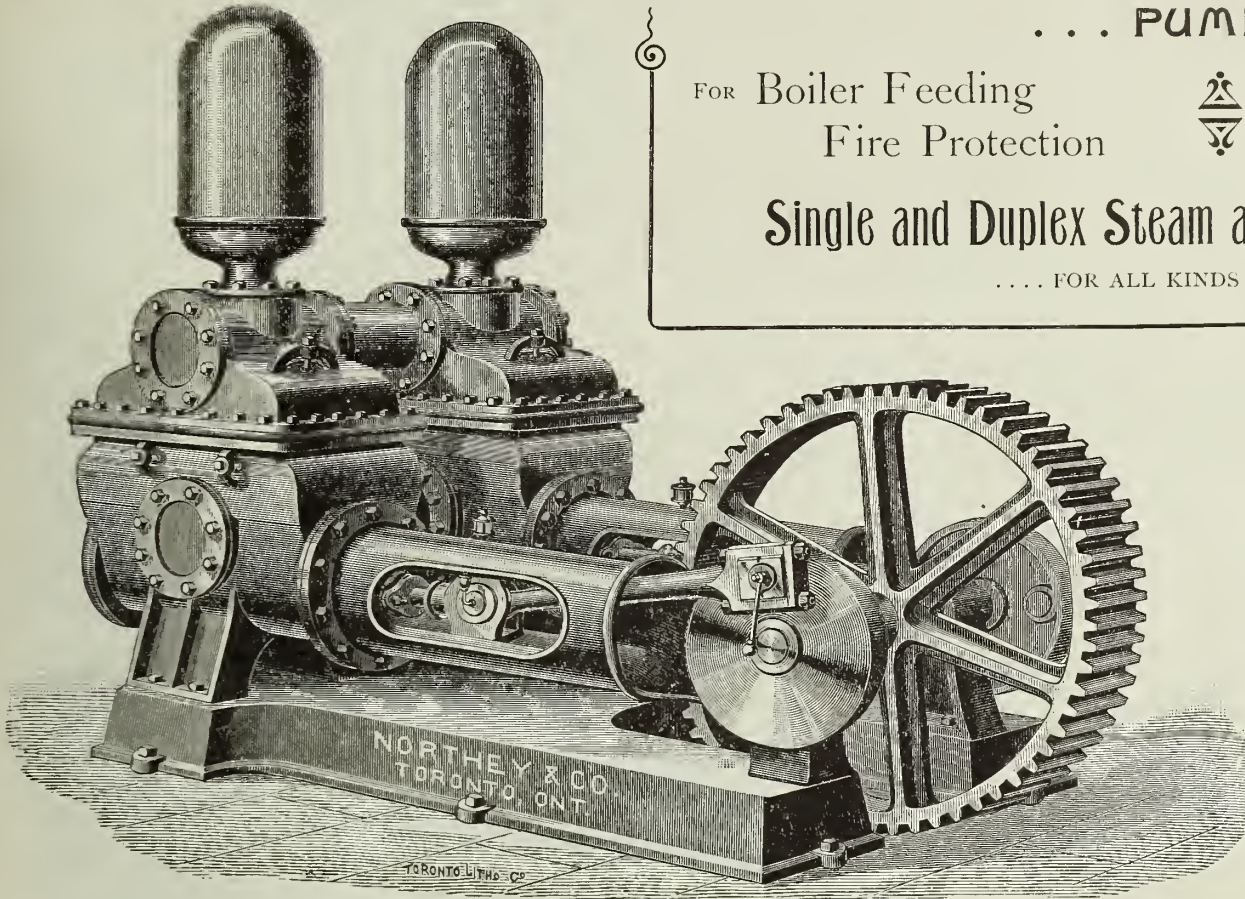
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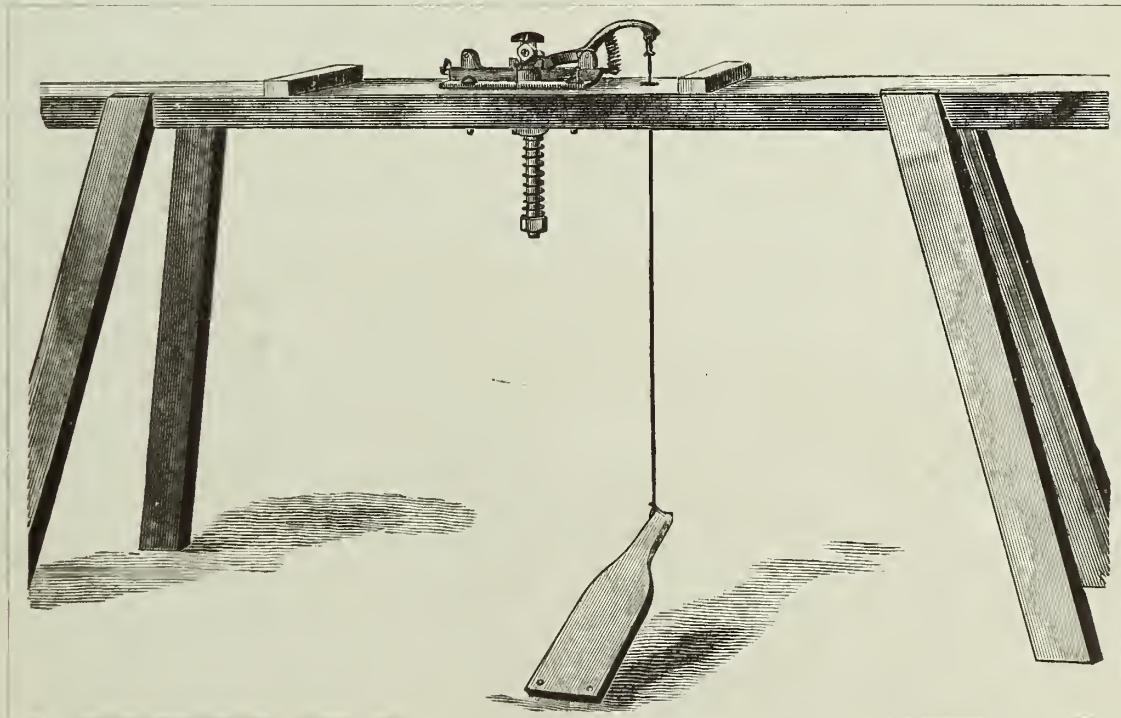
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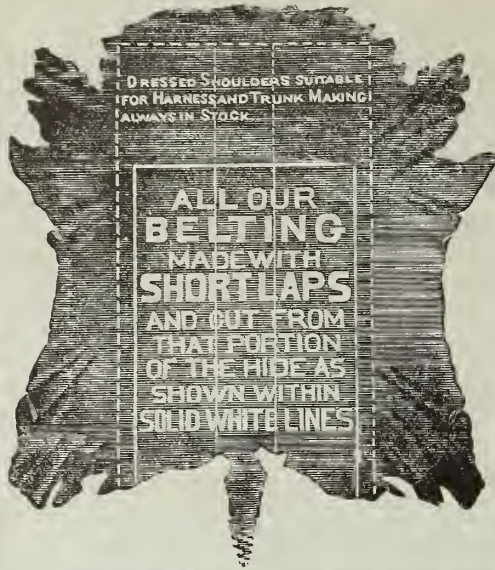
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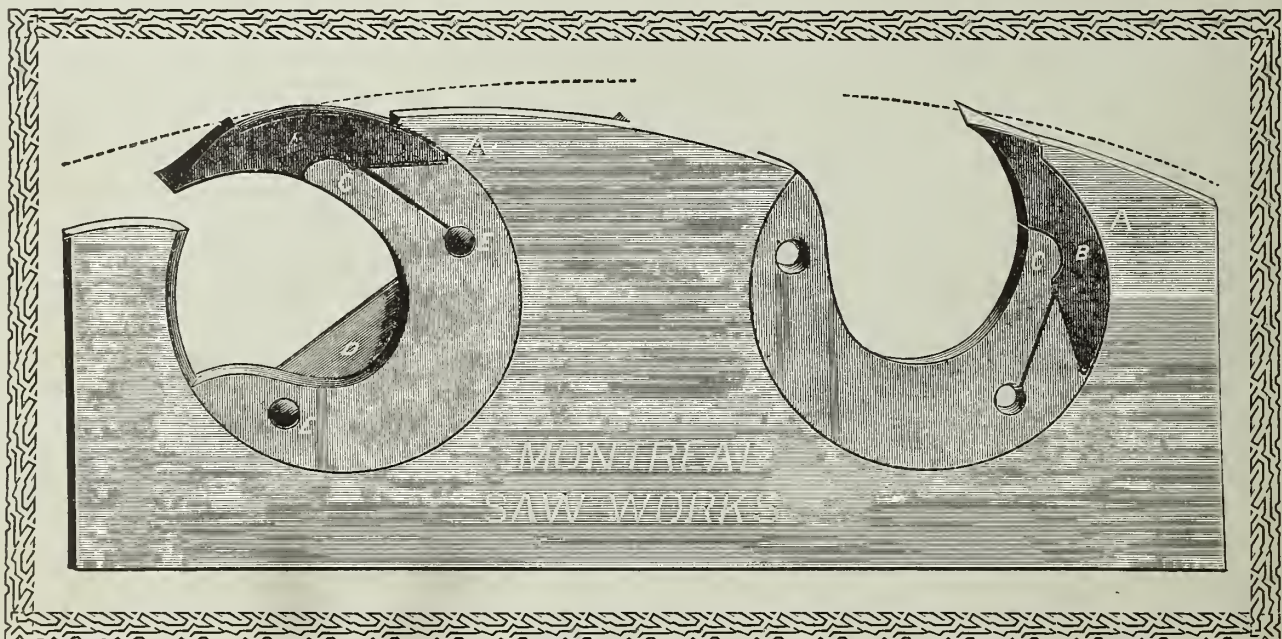


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NUMBER 2.

TORONTO, ONT., FEBRUARY, 1892

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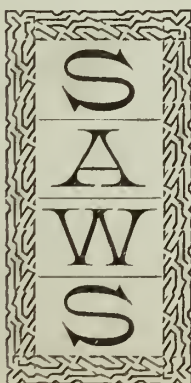
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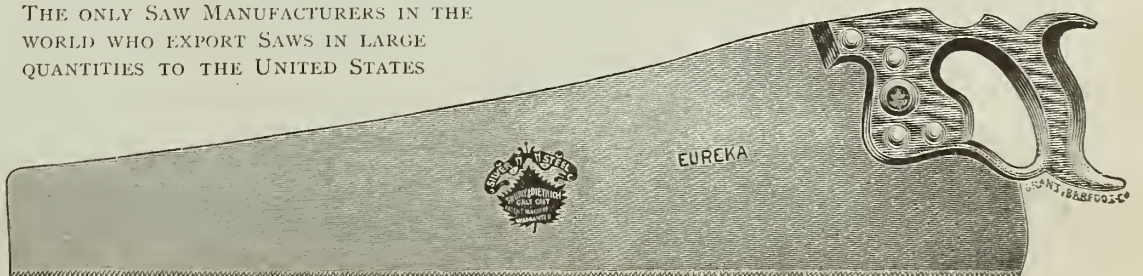
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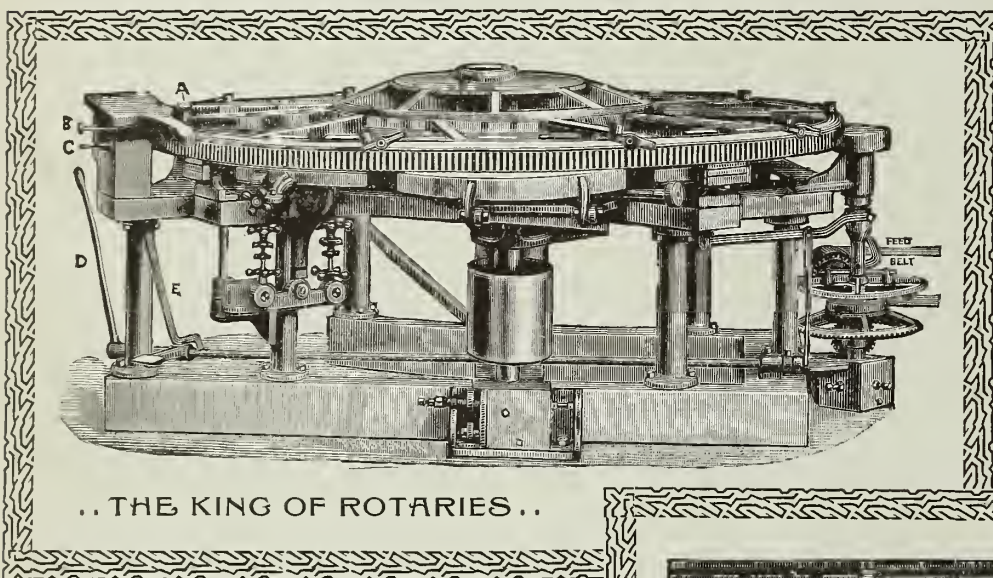


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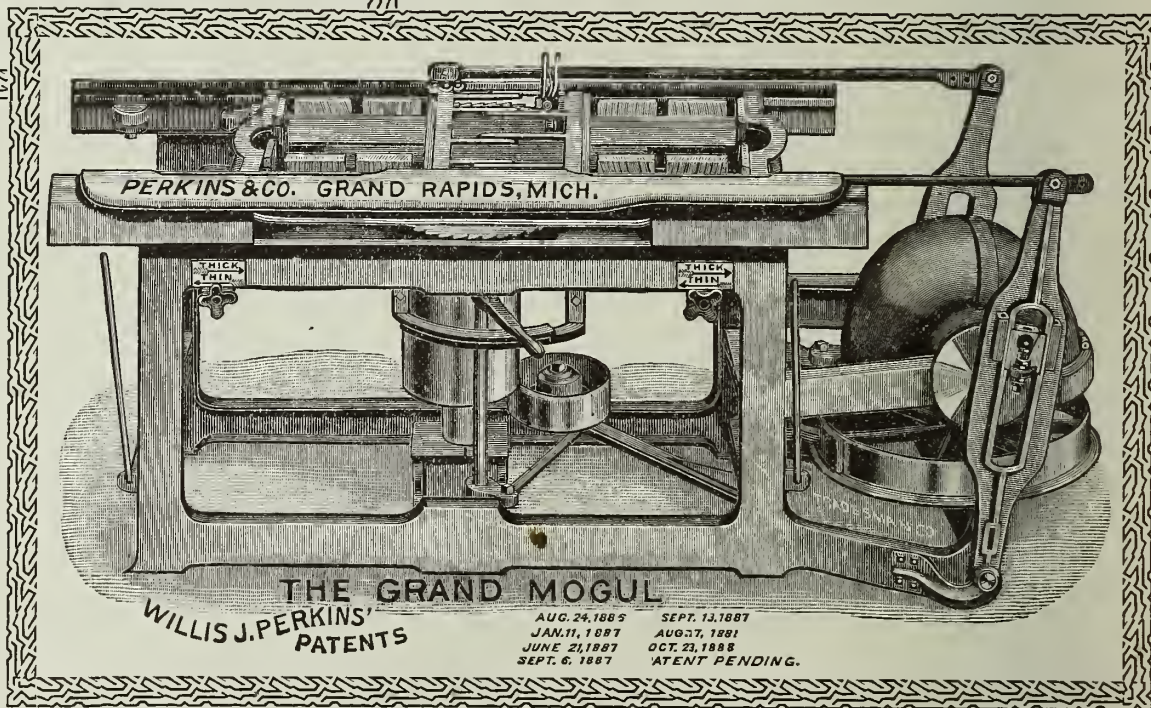


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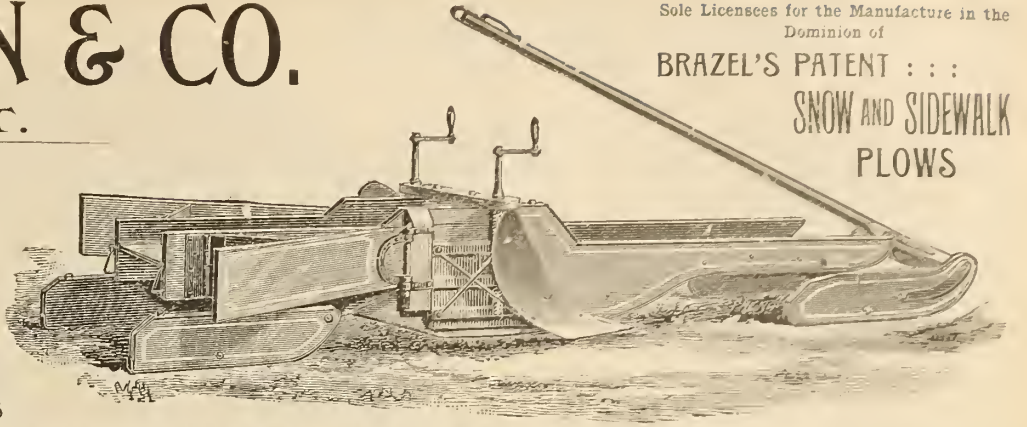
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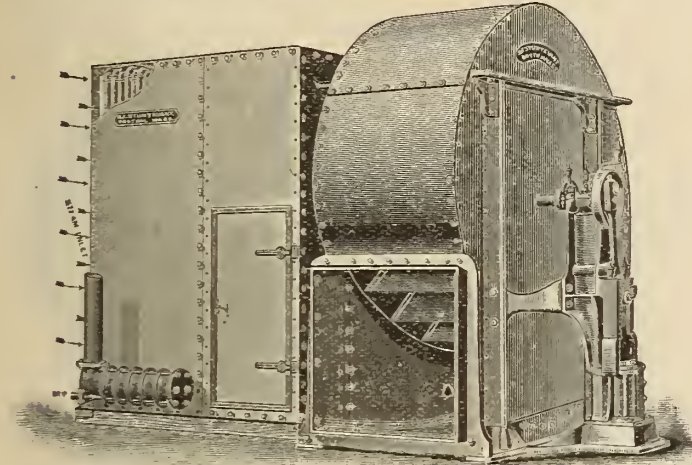
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THE CANADA LUMBERMAN

VOLUME XIII.
NUMBER 2.

TORONTO, ONT., FEBRUARY, 1892

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CHARACTER SKETCH.

MR. AUBREY WHITE

ASSISTANT COMMISSIONER OF CROWN LANDS FOR ONTARIO.

"The worth of a State in the long run is the worth of the individuals composing it."—John Stuart Mill.

THE Civil Service of a country should present to her citizens the highest type both of individual character, and capability and capacity for the best kind of work. Unfortunately for the well-being of country and people this is not the ideal that meets the vision of everyone. To not a few the Civil Service is little better than a harbor of refuge for the "halt, the lame and the blind" of politics, or an easy-going sinecure for certain practical politicians, who insist that the party, whom they have served long and loyally, shall reward them or their friends, at the country's expense, for this very loyal service.

There is more than tradition to give color to this view; but it is by no means a fair view. These conditions, it will be found, are the exception and not the rule. Whilst it is true that politics have sometimes outweighed merit in the competition for public office, at the same time, and particularly in the more important offices of the Civil Service, these offices are held by certain men because these are the best men for the office. It is hardly necessary that history should remind us that men like Chaucer, were in their day, in the employ of their country, this early poet having occupied the position of Commissioner of Customs and Inspector of Woods and Crown Lands; Milton was Secretary of the Council of State during the Commonwealth; John Stuart Mill was a trusted officer of the East India Service. The men of the Civil Service on both sides of the Atlantic, with few exceptions, do credit to their country.

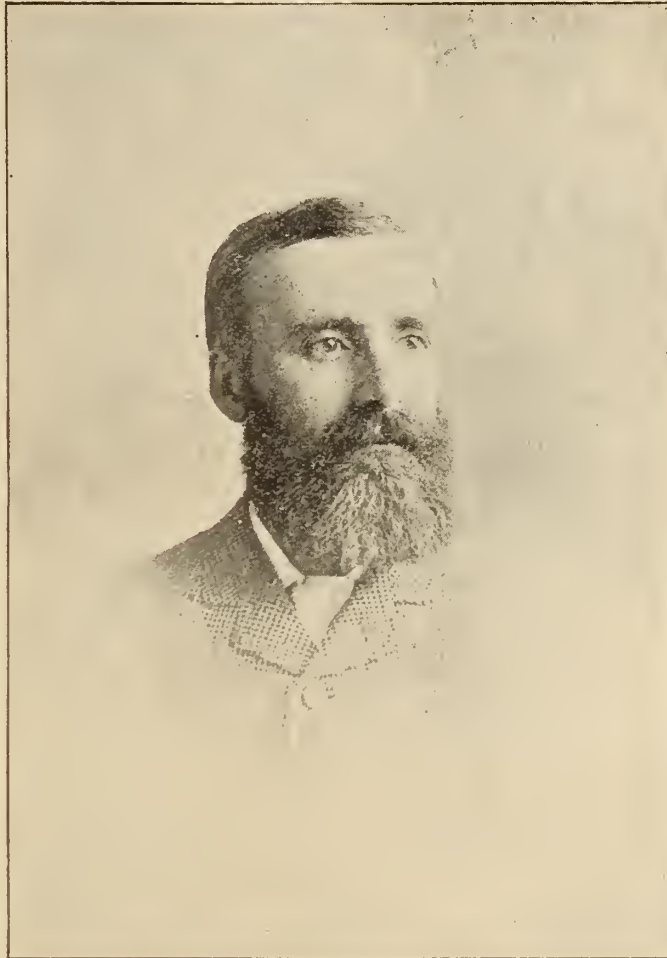
We have in Mr. Aubrey White, whose portrait we give this month, a representative of the best type of the Civil Service officer. He occupies the responsible position of Assistant Commissioner of Crown Lands of the Province of Ontario. The old Greeks were wont to say: "To become an able man in any profession three things were necessary—nature, study and practice." To the department of Crown Lands Mr. White has brought these attributes in an eminent degree. Of him, it may be said, he was "to the manner born," both as regards being an officer under the Crown, and in his service in this country as one whose place it is to have a large share in the management of our timber lands.

Mr. White was born in 1845 at Lisonally House, near Omagh, County of Tyrone, in the north of Ireland. He is the fourth son of the late David White, then of Lisonally House and Mountjay Forest, near Omagh, in which town Mr. White's father and grandfather were well-known lawyers. Like most north of Ireland men, the subject of our sketch is half Scotch, his mother being the daughter of Alexander Mackenzie, of Donaghmore House, Tyrone, who was, however, a native of the town of Dumfries, in the land of cakes.

Mr. White was educated at the Royal Schools of Rapoe and Dungannon, and "Dunbars," Dublin. His early ambition was to enter the navy, and he was, as was then the practice, "nominated for a cadetship," by the member for Tyrone, the Hon. Henry Corry, secretary of the Admiralty, in the Derby Government. After going up for examination at Portsmouth Mr. White was, owing to family misfortunes, obliged to abandon his intention of entering the navy, and had to commence the battle of life in another way. He appears, however, to have had a bias for serving the Queen, for we believe he took the shilling in the year 1861 and served two years,

when his discharge was purchased by his friends. The regiment to which Mr. White belonged, the historic "8th The Kings," which carries Niagara on its colors, was under orders for Canada during the Trent affair, and that, perhaps, gave his mind a turn in favor of Canada.

In 1863 he came to this country and went straight to Muskoka, settling on a lot on which part of the village of Bracebridge now stands. Muskoka at that time was a veritable wilderness, and Mr. White almost immediately gave up farming and went into the interior, trading with the Indians in the service of Alexander Bailey, well known to the early settlers as a successful trader. Mr. White next turned his attention to lumbering, commencing, he laughingly says, as a road-cutter in a shanty and a tail-sawyer in a small sawmill. When Dodge and Company commenced their extensive lumbering in Muskoka Mr. White entered their employment as an ordin-



MR. AUBREY WHITE.

ary hand, working up to the position of cutter. He then resigned to go on an exploration survey undertaken by the Sandfield McDonald government to ascertain the character of the country between Lake Nipigon, Long Lake and the shore of Lake Superior, having been offered by the surveyor the position of chief explorer. On completing this work Mr. White entered the service of A. P. Cockburn, of the Muskoka line of steamers, and was wheelsman on the old Nipissing, the first summer she sailed Muskoka lakes. At this time he was offered a position on Professor Bell's staff of the Geological survey of Canada, but was obliged to decline. He was again asked to re-enter Mr. Dodge's employment as explorer, which he did, and remained with him and his successors, the Georgian Bay Lumber Company, being in charge of their very extensive limits, and later as their Muskoka agent, until they sold the limits of which he was in charge when he left their service.

He was immediately engaged by the Department of Crown Lands to estimate certain timber berths offered for sale in 1877, and on completing that work was placed on the staff of forest rangers, having supervision of Muskoka district. In 1878 he was appointed Crown Lands and Free Grant agent at Bracebridge, which position he acceptably filled, being familiar with every township in the agency. In 1880 he was brought to headquarters, at Toronto, as clerk in charge of forest rangers and the collection of timber returns in the woods and forests branch of the department. Mr. White spent most of his first winter going through the Ottawa country so as to be as familiar with that region as he was with the western part of the province. In 1883, when the boundary dispute assumed an acute form, he was sent to the Rat Portage country to represent the Department in timber matters, which gave him a knowledge of the resources of that region. In 1887 the late

Assistant Commissioner, Mr. Thomas H. Johnson, died, and the Hon. Mr. Pardee offered the position to Mr. White, believing his outside experience, with what he had acquired in the inside service, made him the strongest available man.

The Crown Lands is the most important department of the Provincial Government. Within its jurisdiction is embraced the management of the immense timber and mining resources that add so largely to the wealth of the leading province of Confederation. The country is fortunate in having at the head of this department a man of the strength of character and intellect, and practical ability, of Hon. A. S. Hardy. The very extent of the department, however, emphasizes the necessity of the Minister's assistant being a man of special training and experience, and undoubted competency. Necessarily in so large a department a considerable share of the work will fall on the Minister's Deputy, and we have yet to learn that Mr. White has failed to discharge those duties in a manner other than to gain the respect and esteem of all having business to transact with the Department.

LUMBERING IN BURMAH.

IN Burmah, East Indies, they run their saw mills all the year round. An annual rainfall of 120 inches is one of the features of that land. They cut teak with a circular saw. Lumber is sold by weight. It is used for ship and house building, and teak is the only wood the ants will not eat, and for this reason is the only sort of timber cut in that land of elephant-edgerman. Teak is worth, delivered on the dock, by the trunk of the elephant off-bearer—\$83.33 per thousand feet, as we measure lumber. Teak weighs forty-seven pounds to the cubic foot. Teak does not deteriorate or warp.

The timber in that country is owned entirely by the government. The government lease the forests to the millmen at a certain sum per log, which is imposed by government agents as the timber floats down the swelling rivers. Burmah has about twenty sawmills. The best and largest cut 60,000 feet daily. Although the government gets pay for every tree which falls, there is no attempt made to restrict the felling of timber and therefore teak is growing scarcer and more valuable each year. Elephants and buffaloes haul the logs to the banking ground, elephants roll the logs into the water, elephants haul the logs up out of the water and place them on the carriages; elephants carry the trimmings to the refuse pile, elephants slip their strong and flexible trunks about the finished timbers and deliver them f.o.b. to the docks from whence they are shipped.

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CANADA'S LUMBER TRADE IN 1891.

A REVIEW OF THE BUSINESS OF THE YEAR.

THE GENERAL SURVEY.

THE lumber situation in Canada for the year 1891 is very fully reflected in the detailed reports from the several provinces of the Dominion, which we are enabled to present below. Nowhere can it be said that trade has been brisk.

The returns from Ontario tell of a reduced output for the year as compared with some previous years, and the causes which have led to this decrease are mentioned in our review of the trade of this province.

The information, which we sought to obtain for the benefit of our readers, covered not alone a question of the present, but also an effort to peep into the misty future. The word in this regard is encouraging. In answer to the question: "What stocks are being carried over this winter?" the replies have told generally of smaller stocks than for some years past. One of the largest operators of the Ottawa says, "very much less;" McClymont & Co., Ottawa, "much less;" the Collins Inlet Lumber Co., "150,000 less;" and only in a few cases is an increase reported. In fact, nearly all the piling docks are well cleared. This shortage of stock has already had the effect of stiffening prices and the spring trade will open with the market quite firm. Another favorable condition is the activity in the woods this winter, indicating confidence in the future on the part of our largest operators. The cut in the majority of the camps will be larger than for 1891. We asked: "Is the work in the woods in your district this winter likely to be in excess of last winter?" C. A. McCool answers, "About double;" S. & J. Armstrong, McKellar, "Double;" Burton Bros., Barrie, "20,000,000 excess over 1891;" Wm. Laking, Fesserton, "One-fifth more;" J. W. Howry & Sons, Little Current, "20,000,000 excess;" J. & T. Charlton, Little Current, "3,000,000 excess;" Cameron & Kennedy, Norman, "20% greater;" Parry Sound Lumber Co., Parry Sound, "Our cut will be 11,000,000;" McLachlan Bros., Arnprior, "10 per cent. excess." It is believed that in the Ottawa district alone nearly 5,000 men are to be found in the camps, as compared with about 3,000 last season. So the hope is for good prices an increased demand, and stock cut to supply the demand.

Quebec trade shows a noticeable curtailment compared with other years. This is to be accounted for, to no small extent, by the depressed condition of the English lumber markets for more than a year past. The official figures of the English Board of Trade tell of a shrinkage in lumber imports from Canada as follows:—

Hewn timber, 1890	£ 883,461
Hewn timber, 1891	703,604
Sawn wood, 1890	2,093,524
Sawn wood, 1891	2,013,452

Quebec shared, as did the Maritime provinces, in this depression. Lumbermen, however, are not disconcerted by these conditions, but view hopefully the outlook for the future, as the following from our own correspondent in the Ancient City, who is thoroughly acquainted with lumber matters, past, present and future, would indicate. He says: "Although the snow was very late in coming and considerable delay was caused in hauling logs, we believe that lumbermen, generally speaking, have been able to make up time lost by the fine weather and good roads that we have had since the snow fell. In the district of Quebec, with the exception of birch, ash, hemlock, tamarac and spruce, very little timber is manufactured; although a large quantity of spruce logs and some pine are got out every year for mills in the neighbourhood of Quebec. As spruce is doing better in Great Britain we have no doubt that a larger supply of logs than usual will be made this winter. From the Ottawa we learn that the production of square and waney pine will not exceed the estimated quantity; so that the Quebec trade as far as one can see is in a healthy condition. The manufacturers in Michigan and Ohio who have hitherto brought waney pine to this market are doing very little this winter, as the cost of standing timber is very high and with the manufacture, transportation and charges of different kinds no margin is left for profit at present Quebec prices. The Quebec houses are at present well represented in Great Britain, one or more partners from each

firm being on the other side of the Atlantic to look after the wants of their customers."

The report from the Maritime provinces says everything that need be said of lumber conditions down by the sea. The one regret is that no improvement in trade is to be noted.

Our returns from British Columbia are not as complete as we had wished, yet the information that we furnish under heading for this province will give a fair idea of conditions on the Coast in 1891.

ONTARIO.

The returns that we have received from the leading lumber sections of the province would indicate that the cut for 1891 was considerably less than that of 1890. This is to be accounted for to a large extent by the falling off in the Ottawa section, where the total cut was only about 175,000,000 feet, as against 325,000,000, the average of other years, representing a decrease of 150,000,000 feet. The circumstances that led to this abnormal decrease were somewhat varied. The season opened with large stocks on hand, and the policy adopted, apparently, was to clear these out, rather than work for a larger cut; and this was done, it is agreeable to say, at improved prices over past years. The strike of the millmen, lasting a period of four weeks, meant a curtailment of cut proportionate with the average working capacity of the mills for that length of time. Then the E. B. Eddy Co. and Pierce Co. were out of the race in 1891, so far as sawing lumber was concerned. The cut from the leading mills is as follows:

Perley & Pattee	36,000,000 feet
Bronson & Weston Co.	38,000,000 feet
J. R. Booth	22,000,000 feet
Buell, Orr, Hurdman & Co.	18,000,000 feet
McClymont & Co.	22,000,000 feet
Wm. Mason and Sons	6,000,000 feet

In the Georgian Bay, Parry Sound and northern districts about an average trade was done. Burton Bros., of Barrie, cut 15,000,000, which was about the same as the year previous. The Collins Inlet Lumber Co. cut 5,400,000, about 900,000 less than in 1890; Longford Lumber Co., of Longford Mills, 15,000,000, which does not differ materially from that of a year ago. A reduction is shown in the figures from the Parry Sound Lumber Co., which are as follows: 1891, lumber 7,500,000, lath 2,800,000, and 6,500,000 shingles, against 13,000,000 lumber, 4,300,000 lath and 7,200,000 shingles. Wm. Laking, of Fesserton, cut 3,500,000 feet, an increase of 500,000 over 1890. Cameron & Kennedy, of Norman, whilst located within the province of Ontario, represent in a large sense the lumber interests of Manitoba and the Northwest. Their cut for 1891 was 13,000,000 feet, an increase of 4,000,000 over 1890. This entire output goes to Manitoba and the Northwest. Shipments from this district in 1891 were about 65,000,000 feet, as against 45,000,000 in 1890. McLachlan Bros., Arnprior, cut 80,000,000 feet, which beats the record of the year anywhere.

QUEBEC.

We are indebted to Mr. J. Bell Forsyth, of Quebec City, for the statistics of the Quebec lumber trade that are embodied in the following review, the complete and accurate character of which reflects credit on the industry and ability of the compiler.

The year 1891 did not add strength to lumber affairs in Quebec. There was a considerable falling off in arrivals from sea, as the following figures show: 313 ocean steamers, 623,858 tons, against 341 ocean steamers, 642,874 tons the previous season, and only 251 sailing vessels, 233,327 tons, against 381 vessels, 320,093 tons in 1890. In the spring of 1891 the markets in Great Britain were depressed, and in many ports the stocks were heavy, an outcome in some respects of the stringency of the money market in England, and the strikes of the workmen in the building trades. The result was the arrival of a very small spring fleet, and the summer and autumn arrivals were also small.

Conditions in detail will be learned from a careful study of the following tables:

WHITE PINE.—The shipping merchants were fully stocked, and the market opened last spring without any demand, although some lots were offered at easier rates than would have been accepted at the close of 1890. As the season progressed an improvement both in prices and in demand took place, and a number of rafts

changed hands at fair rates. The quantity measured by the returns from the Supervisor of Cullers' office has been exceedingly light, even less than the small supply of 1887 or 1888, and as a consequence the stock now wintering is a greatly diminished one. It is chiefly held for account of Quebec Merchants.

	Supply	Export	Stock
1891 { Square	1,072,002	4,715,120	2,943,680
Waney	1,730,609		2,048,898
1890 { Square	5,082,772	5,498,380	4,799,633
Waney	3,694,742		3,528,209

RED PINE.—The supply has been almost nil, far less than in previous years. This wood is not in great request and is becoming scarce.

	Supply	Export	Stock
1891	41,680	249,350	348,165
1890	324,702	355,520	612,918

OAK has been in less demand than usual, and though prices have been fairly maintained it will be observed that quotations for this wood are slightly reduced. The supply, export and stock wintering are lighter than usual.

	Supply	Export	Stock
1891	679,506	897,280	522,040
1890	1,227,982	1,119,160	753,566

ELM.—While the receipts have been about one-third less than the previous year, the stock now wintering is unprecedentedly light. This is one of those woods difficult to procure, unless high prices are given for standing timber.

	Supply	Export	Stock
1891	488,731	657,800	102,608
1890	611,582	530,260	459,501

ASH.—The demand has been very limited; stock wintering exceptionally light.

	Supply	Export	Stock
1891	101,060	130,320	21,357
1890	142,450	15,280	99,383

BIRCH.—This wood is easily procured and the supply is altogether regulated by prices offered. The wintering stock is about the same as last year.

	Supply	Export	Stock
1891	133,997	148,320	13,177
1890	224,752	493,740	13,752

STAVES.—Little to report in this branch of trade, shipment of staves having almost ceased.

	Supply	Export	Stock
1891 { Pipe	10	13	5
{ Puncheon	4	77	1
1890 { Pipe	11	77	31
{ Puncheon	8	142	21

PINE DEALS.—There has been a fair demand during the season, though it must be remembered that the quantity of pine deals sawn at or near Quebec has become extremely limited, most of the production coming from the Ottawa and Western Canada. The stock wintering is something heavier than last season, at the same time considerably under the average of past years.

	Supply	Export	Stock
1891	983,230	704,472	274,782
1890	878,810	1,075,992	246,015

SPRUCE DEALS opened rather heavily in spring, improved towards summer, and have been in fair demand since that time. The quantity wintering, although heavier than last year, is only slightly over the average.

	Supply	Export	Stock
1891	2,955,979	2,280,049	1,199,950
1890	3,839,914	3,975,576	774,020

SAWN LUMBER.—During the early part of the year the market was very much depressed for shipments to the United Kingdom, but later on it improved somewhat, and now the prospects are more favorable. The American market has not been as good as in former years, but the prospect for 1892 is more encouraging.

Pine is quoted at \$15 to \$18 per 1000 feet b.m. and Spruce at \$10 to \$12, according to quality, sizes, etc.

Freights opened at 18s. for timber, and 42s. for deals; closed at 25s. for timber, and 65s. for deals.

THE CARRYING TRADE.

The following are the arrivals and tonnage at the port of Quebec for the five years 1887 to 1891 inclusive:—

SAILING VESSELS FROM SEA.					
	1887	1888	1889	1890	1891
Vessels	393	318	392	381	251
Tons	295,912	260,301	326,706	320,093	233,327
OCEAN STEAMSHIPS.					
	1887	1888	1889	1890	1891
Steamships	287	244	324	341	313
Tons	541,324	484,449	596,598	642,874	623,858
LOWER PROVINCES.					
	1887	1888	1889	1890	1891
Vessels	425	447	371	442	519
Tons	193,136	231,518	196,269	241,242	275,084



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THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

FREE TIMBER PROPOSALS.

THE Ways and Means Committee at Washington is moving in the direction of fewer restrictions on lumber. On the 23rd ult. a bill, drawn by Mr. Bryan, the Nebraska member, providing for the abolition of the duty on unmanufactured lumber, was formally considered, and an agreement reached which will be embraced in a report to be presented to the House at an early date. The bill provides that on and after October 1, 1892, the following articles shall be exempt from duty:—

Timber hewn and sawed, and timber used for spars in building wharves; timber squared, or sided wood, unmanufactured, not specially enumerated or provided for; sawed boards, planks, deals, and all other articles of sawed lumber: hubs for wheels, posts, last blocks, waggon blocks, oar blocks, gun blocks, heading blocks, and all like blocks or stocks, rough hewn or sawed only; staves of wood, pickets and palings; laths, shingles, clapboards, pine or spruce logs, provided that if any export duty is laid upon the above mentioned articles, or either of them, by any country whence imported, all articles embraced in this Act imported from said country shall be subject to duty as now provided by law.

Another point agreed upon in committee is that "when lumber of any sort is planed or finished there shall be levied and paid for each side so planed or finished 25 cents per thousand feet, board measure, and if planed on one side and tongued and grooved, 50 cents per thousand feet, board measure, if planed on both sides and tongued and grooved, 75 cents per thousand feet, board measure, and in estimating board measure under this schedule no deduction shall be made on board measure on account of planing, tonguing and grooving."

This clause is in the language of the McKinley Bill, but provides for only one-half the duty levied in that measure.

The bill further provides that paving posts, railroad ties and telegraph poles of cedar shall be dutiable at 20 per cent. ad valorem, and that sawed boards, planks, deals, and all forms of sawed cedar, lignum vitæ, lancewood, ebony, box, grandilla, mahogany, rosewood, satinwood, and all other cabinet woods, not further manufactured than sawed, 15 per cent. ad

valorem, veneers of wood 20 per cent. ad valorem.

The movement, in short, is an assault on the McKinley Bill, which it is not unlikely will be severely criticised by many American legislators during the present year.

Whilst Mr. McKinley in his own State was victoriously elected, the complexion of the United States legislature is largely Democratic, and Democratic leanings are unmistakably in the lines of freer trade relations.

It is believed that nine-tenths of the lumbermen of the United States will oppose the passage of Mr. Bryan's bill, as also another introduced by the same member, providing for free salt. The Chicago Timberman is of the opinion that it is only possible to secure the defeat of these measures by the most perfect organization and a strong and determined fight. The general sentiment of the majority of the House is represented by our contemporary to be favorable to the passage of both bills.

We do not know that Canadians of any class view with particular favor the McKinley Bill, and it is becoming evident that the measure has a strong opposing force in the country of its adoption.

STRENGTHENING CANADIAN FORESTRY.

IT is not improbable that at the coming session of the Ontario Legislature, which convenes on the 11th of the present month, fresh interest will be given to the question of Canadian forestry in a bill that will likely be introduced by Hon. E. H. Bronson, who is eminently fitted, by natural gifts and long practical experience to deal intelligently and comprehensively with the question. It cannot be laid at the door of our provincial government that it has been indifferent to the importance of the immense forest wealth of the province, and under the watchful management of Hon. A. S. Hardy, the Minister of Crown Lands, much careful thought has been given to this department of the government. Still everything that might be done has not been done. We do not know but that this is the fault of the people rather than their rulers. The utilitarian spirit of the age controls the actions of many men in so large a degree that if some immediate practical purpose cannot be served no large consideration is given to the concerns of the future. In regard to our timber interests this is the general policy that is being pursued. The country is rich in timber resources; let us fell the timber as rapidly as we can now, while it is day; get it into the market and turn it into cash, for the night cometh, when the present generation at least, cannot work the forest wealth of the country. This will hardly be termed a parody on the facts as history gives them to us to-day. On this point Mr. Bertram and Mr. Little, though holding divergent views on the trade question in general and the lumber problem in particular, both agree. The former, in an interview in these pages some months since, said, one main difference between the United States and the Canadian lumberman working our timber limits is the rapidity with which the former will clear the woods of all standing timber. He will lose no time in getting every tree felled and marketed. The Canadian will go about the business more leisurely. Mr. Little warns us that if the depletion of our forests goes on at the rate of the past few years these forests will soon present little better than a barren waste.

Making necessary allowance for what may perhaps be an error in calculation in this matter enough is assured to make clear to every thoughtful citizen, that unless at some point in the near future, intelligent and workable methods of retaining or reproducing our forest wealth are adopted, the country itself and future generations will be the losers.

We may not think it necessary to go nearly as far in this matter as is done in European countries; France, for example, having expended \$30,000,000 in re-forestation, and is likely to spend that much more to reclaim its farming lands. But be it remembered, that this step became necessary, simply because of the wide rein that was given by the State to timber owners, when a plethora of timber was in existence.

The most instructive example of scientific forestry is found in Germany. Her forests cover about 8,153,946 hectares, or 23.4 of the total surface of the country. One-third is devoted to deciduous trees, and the remainder to the conifers, German forestry methods seeking to

prove a help, in place of a hindrance, to agriculture. The State ownership in these lands is about 29 per cent., that of town and village communities, 16 per cent., and private owners 55 per cent. The State takes a high view of its relations to these lands, regarding them as a sacred trust in which the interests of people yet unborn are to have equal weight with those of persons now living. We have here a view that finds its opposite in the utilitarianism of this country.

Great care is given to the administration of forest lands, a department in charge of the Minister of Agriculture, who is immediately represented by the Chief of Forest Service. The plan of management is thoroughly German, and perhaps in no other country could the work be conducted in the same exact scientific spirit.

The timber cannot be felled at the "sweet will" of every man who sees in the standing timber a mine of wealth for himself. The amount of timber for which a given forest area may be safely drawn upon is fixed by the government. Details of management, carefully reached by calculation from reliable data, are put in black and white for the executive officer of the range; and perfected arrangements are carried out for the periodic revisions which occur at intervals of five and ten years.

The officers in charge of the forestry management of Germany are as perfectly drilled in their particular work as are the military officers of this most military of countries in matters pertaining to their vocation. There are 681 officers of the executive staff, who are called Oberforsters. The greatest pains are taken in the selection and training of candidates. A candidate must be a graduate from a gymnasium, and then put in a year under an Oberforster of experience; he must be at least 22 years of age; able to pass certain moral and physical tests, and be able to show that the state of his finances will warrant his undertaking the cost of his subsequent training. A year is occupied in obtaining a general knowledge of planting, felling and protecting forests. Then follows two years of severe study at one of the forest schools, followed by a year of jurisprudence and political economy at some university. All this leads up to the first State examination. If successful here another siege of hard study in more practical forestry lines is required, when the formidable final examination, partly in and partly outdoors, on land, political economy, finance, forest policy, organization of service, and the laws and lore of hunting, is undertaken.

The advancement in forestry ranks after this is not particularly rapid. We fear that the average Canadian would weary in his effort to "get there." But absolute mastery of one's calling is a 'sine qua non' of German educational methods in any line.

It may be claimed that no method approaching, even in a minute degree, the elaborate character of the German system, is necessary or applicable to forestry work in this country. We have to remember, however, that no sound system of any kind can be evolved from an ideal that rests on a low plane. The German ideal is high, but it is most complete, and we cannot dig into it and fail to extract much that must prove helpful to us on this continent. In India, where the soil, climate, social political and economical conditions, species of trees, etc., dealt with, were as diverse as possible, it was the German system, with some modifications, that was made successfully applicable to the forest service of that country. It would be strange if from this system something could not be learned to help Canadian forestry.

TARIFF PROBLEMS.

THE paper by Mr. Wm. Little, of Montreal, covering two pages of this number of the LUMBERMAN, is probably the most complete review of the duty question, favoring a renewal of the export duty on logs, that has yet been published. Mr. Little has for years been a close student of the economic side of lumber matters, and possessed of a wide experience as a large operator in lumber, his opinions will necessarily carry weight. It is doing no injustice to the line of argument pursued with so much vigor by this writer to say that he has always been an uncompromising advocate of absolute protection to Canadian forests. He is just as thoroughly going a believer in "Canadian markets for Canadian

umber," as Mr. Huyett is in "American markets for American lumber." When the export duty on saw logs was \$1.00 a thousand and the United States import duty on sawn lumber \$2.00, he considered that a great injustice was being caused to Canadian interests, and took no inconsiderable part in having the export duty on logs increased to \$3.00. It was shortly after this, of course, that the Government abolished the export duty altogether. Mr. Little now pleads with all the earnestness of his nature for a renewal of the duty to its former figures.

Mr. Little's leanings, we suppose, in matters of trade generally, as indicated by his discussion of the lumber situation, are towards protection of native industries, rather than in the direction of freer trade relations with other countries. And this is really the broader question that in nearly all the leading countries of the world is receiving, more than any other question, the consideration of their ablest statesmen. The time does not seem far distant when in Great Britain, United States and Canada, not excepting other European and American countries, an upheaval of tariffs and trade relations will take place, that by our grandfathers would have been considered as impossible as crossing the Atlantic to-day in Diogenes' tub. But this is an age when history is made rapidly. What these changes will be it would be entering the field of prophecy to predict. In our own country there are various economical views being promulgated. Protection to native industries is the policy of the government in power, and opposed to this view are the free-traders, who would make commerce as free as the air we breathe. There are those whose programme is a tariff for revenue only. Reciprocity with the neighboring republic is a policy that has no inconsiderable following, whilst a form of protection that has lately been advocated with much vigor is that favoring reciprocal arrangements with the Mother Country as against the United States.

Great Britain, perhaps, shows no serious intention of going back on her record as the great free trade country of the world, and yet there are internal rumblings of dissatisfaction with the condition of at least some of her manufactures, and changes are coming over her trade relations with other portions of the world. The question of what is best and wisest to do, taking the broad view, which Great Britain has ever done, is being asked.

The United States has her own share of tariff problems, and her policy of protection to native industries has been carried to far enough extremes to commence in some cases to rebound on those who have hitherto been its most zealous apostles.

Good will come of the fullest discussion that can be given to these questions in Canada and everywhere. There need be no occasion for those who differ with each other adopting the school-boy role and commence calling names. Let the discussions among ourselves and with other countries be conducted with manly dignity and independence. No occasion can call for inuendo or bitterness.

Reaching out somewhat broadly in the trade discussion, and viewing the lumber question from different ground to Mr. Little, is the supplementary article to that of last month, which we publish elsewhere in this number, by Mr. John Bertram, of this city. Mr. Bertram discusses mainly the lumber question, but the article is likewise suggestive of the view that he takes of the trade question in its broader light, particularly in its relations to "the dwellers on this broad continent."

The columns of the CANADA LUMBERMAN, we need hardly say, are open to our readers for a full and liberal discussion of the trade question in which as lumbermen we have a deep interest.

QUEBEC TIMBER SCANDALS.

THE timber trade has not escaped the meshes of scandal that have surrounded political affairs in this country for some months. Interest during the past month has centered chiefly in Ottawa county. The allegation is that during the past three seasons fees to the amount of \$92,000 were remitted to certain lumbermen doing business in that county—monies that rightly belonged to the Quebec treasury. Under instructions

from the DeBoucherville government, Mr. Kemp, inspector of crown lands and timber agencies for the province, has been investigating the charges, and his report will be considered by the Royal Commission now investigating Quebec affairs in general.

J. B. Charleson, chief forest ranger for the province of Quebec, has proffered the following explanation. He says: "It is true remissions have been made, but they only amount to about \$51,000 and a special remission of \$20,000. The remissions are of three classes. The first was by special order and was based on the demands of the lumbermen that small logs, under 12 inches, of red pine should not be charged at the same rate as the larger logs. The lumbermen complained that the fees were 40 per cent. in excess of what they were under the previous government, and that under the previous government the small logs were put in as cord wood. The Mercier government considered the complaint a fair one, and agreed that all small logs of 11 inches and under of red pine should go in at the price of spruce. The special remission was \$15,000 allowed by the government to Gilmour & Co. as compensation for the amount paid by them to Father Paradis in his famous suit against them, Mr. Mercier believing that the verdict was a snap verdict. The other \$5,000 was for the removal of burnt timber. The total amount of dues in the last four years amounted to \$2,800,000, and it will thus be seen that the remission did not amount to more than 2 or 3 per cent. With regard to the remission for burned timber the government, to encourage the removal of burnt timber, and to keep under the boring worms that get into burned standing trees, had reduced the fees from \$1.30 a thousand to 65c. With regard to remission for shortages, the facts were that the lumbermen found that the amount figured in logs by cutters did not pan out in board measure in the yards, and this being the fact the government could not do otherwise than make a remission of fees for the difference. Some of the lumbermen pay as much as \$84,000 a year, and their remissions in the four years would not amount to much over \$8,000."

LUMBERMEN SPEAK.

WOULD entire reciprocity in lumber prove an advantage to the lumber trade in Canada? This is one of a number of different questions embodied in a circular sent by the CANADA LUMBERMAN within the past month to leading lumbermen in the different sections of the Dominion. The other enquiries treat mainly of the cut of the year, where our lumber goes, work in the woods, and the outlook of business for another year, and are dealt with in the annual review of the lumber trade of Canada elsewhere in this number of the LUMBERMAN.

The replies to the enquiry on reciprocity are of the most pronounced character. Fully 95 per cent. of the trade, without regard to locality, have replied in the affirmative. Some of these have added emphasis to their replies in such words as, "most decidedly," "undoubtedly," "certainly," "very much," "no doubt about it," "Yes, by all means," and similar expressions of approval. The letter, of J. T. Schell, of McPherson & Schell, of Alexandria, Ont., that accompanied his replies in circular form, goes more fully into the question than do some of our other correspondents, but it is unmistakably favorable to free trade.

It has not been without some effort and expense that the CANADA LUMBERMAN has collected the information here given on the subject of reciprocity in lumber, as well as that bearing on other important phases of the lumber trade, and printed in these pages. This line of work comes directly within the province of a paper of the character of the LUMBERMAN. What our readers want is correct and comprehensive data on which to build intelligent and workable plans for the healthy development of the lumber industry. Mere theory will not do this, nor will the 'ipse dixit' of any one man, nor any number of men. "Cold facts," as some one else has expressed it, is what we are all anxious to get at; and from these "cold facts" we can safely trust the lumbermen and millmen of this country to draw with wisdom and act with judgment. We leave the facts presented in this number of the LUMBERMAN to their consideration.

EDITORIAL NOTES

MAINE lumbermen are particularly interested in a case set down for trial at the coming term of the supreme court in York county. Albion W. Rowe, of Cornish, claims to have had lien on about a million feet of logs which Jesse Sanborn had rafted in that town; and that while the lien was still on many of the logs came down river and were worked into lumber. The question to be fought out at this time is whether a lien can follow logs down a river and through the process of manufacture. A case of this nature has never before been tried in that state.

AN English lumber journal remarks that "during 1891 only one sailing vessel arrived in Hull from British North America with a cargo of wood, two sailing vessels brought extract of bark, and four vessels arrived with pine deals, etc., from Montreal. For the second year in succession we have had no imports direct from Quebec. When our trade with that port was first established cannot now be accurately ascertained, but certainly from the middle of the last century we had summer and autumn fleets, some of the latter not arriving home until the early spring, and all the finest Hull ships were more or less employed in it. A remarkable change has, however, come over the trade."

SAILORS and negroes, if we except the highland Scotchmen, are perhaps more prone to superstitious thoughts than any other class of people. Many good stories are told of the idiosyncrasies of these classes along these lines. Here is one that bears a relationship to the timber trade. A cherry tree in a colony of negroes down south bloomed recently, and an old colored woman, who is credited with supernatural powers, declared that it was an omen of the approaching end of the world. The colony became excited, held religious services and waited for the end. But two weeks passed and the excitement began to subside. Then several trees bloomed, and all the negroes in the colony packed their household goods and left the place.

THE northern sections of Minnesota, into which Michigan lumbermen are commencing to move, is pictured as one of the richest pine timber countries in the United States. It lies close by our Rat Portage territories, the only dividing line being the Rainy river. The climate is not cold, except in the higher elevation of land, but is of a steady and comfortable temperature. White poplar grows in abundance, and of good quality and size. As much as 25,000 feet will sometimes be found on an acre. This timber makes fine barrel stock, and large quantities of it are shipped to Rat Portage to be used by the extensive flour milling concerns that are located in those territories. It is estimated that in northern Minnesota there are at least 100,000,000,000 feet of standing pine, as well as other valuable timber.

THE year 1891 has been declared an "off year" for yellow pine manufacturers. Hope was big, but the actual did not materialize at any point. When prices were expected to advance they simply sagged, and when orders were looked upon as certain no demand existed. The Northwestern Lumberman, which is disposed to read its brethren of the yellow pine section a lesson, says: "In summing up the past year's business, the ledger may show a blank line on the credit side of profit and loss, but for those who have kept a journal of experience a credit will appear at the final posting which will prove in a majority of cases more beneficial than dollars and cents, and will prepare the way for a dividend at the close of the present year, whether the long-expected revival in trade comes or not. In short, while travelling a rough road, we learn more about careful driving in going one mile than in covering twenty miles of smooth road, on which a blind man would not stumble.

THE NEWS.

ONTARIO.

—Joseph S. Wallis, lumberman, Port Carling, has replaced a 20 h.-p. boiler with a 65 h.-p.

—The sawmill of George Esterbrook, at Tweed, Ont., was destroyed by fire on the 26th ult.

—Messrs. Bryan, of Collingwood, have completed a new planing mill and commenced operations.

—Thornton's shingle mill, Tanworth, Ont., has been destroyed by fire. Insurance, \$1,100.

—Dan McArthur, a Canadian woodsman, working at Sault Ste. Marie, Mich., was brutally murdered in a saloon on the 14th ult.

—Lumber exports from Ottawa to the United States for the last quarter of 1891 were \$475,000. This is an increase over a corresponding period of a year ago.

—Thousands of cords of pulpwood are being cut throughout the Parry Sound and Muskoka districts this winter. Near Rosseau there are over 200 men engaged in the work of cutting.

—A terrible accident happened at Hale's Camp, north of Chelmsford, Ont. A sawlog rolled over a French lumberman, from the chest down, crushing him in a terrible manner. He was taken to Mattawa hospital.

—The Trethewey Falls Shingle Mill (water-power, built 1891) with stock of logs, timber, camp equipments, etc., are to be sold. R. H. Meyers, of Bracebridge, is winding up the estate, from whom all particulars can be learned.

—Large numbers of men in the lumber camps in Georgian Bay and neighbouring districts are said to be suffering from la grippe. Many deaths are reported, and in some camps the extent of the epidemic is completely demoralizing the season's work.

—J. R. Booth is at present placing another large English gate-saw into his mill at the Chaudiere. Men are now engaged building a pier 20x20, upon which the new saw will rest. The water channel beneath the mill is almost blasted out, and in the course of about two weeks the improvements will be completed.

—The following troubles in the lumber trade of Toronto are reported: W. N. Crone & Co., called a meeting of creditors; James Hanna assigned to E. R. C. Clarkson, liabilities \$7,000, assets, \$6,000; Allan C. Thompson assigned to Robert T. Jenkins, liabilities about \$10,000; J. J. Carruthers assigned to J. H. McArthur.

—The rebuilding of Buell, Orr & Hurdman's mill, Ottawa, is rapidly being completed. The greater part of the new machinery to be used in the mill has arrived, among which are two gigantic waterwheels, which will soon be placed in position. Three new band saws and a wick's gate will be added to the present machinery, and a pier is being built, upon which the latter will be placed.

—An iron pulley on one of the dynamo machines in the new electric light station at Toronto Junction recently burst while running at full speed. The fragments flew in all directions, but the attendants miraculously escaped unhurt. The pulley was at once replaced by a Dodge Wood Split Pulley (ordinary stock), and the attendants now feel somewhat safe again. Moral—use Dodge pulleys.

—The wholesale lumber firm of W. N. McEachern & Co., of Toronto, have dissolved partnership. S. J. Wilson & Co., representing one party to the old partnership, continues business at the old stand, and W. N. McEachern has taken an office in the Canada Life Building, handling the same lines of lumber as of old. His business announcement appears in this number of the LUMBERMAN.

—Reid & Co. have secured the contract to supply the wants of Toronto with sidewalk plank and scantling for the year 1892, which means 4 to 5 million feet; and we understand from them that they are now prepared to receive propositions, and to make contracts with parties who will be getting out this class of material for next season's delivery. It will be composed of 2 in. sidewalk plank, gang saw, and 4x4 scantling. We would suggest to the mill men to make an early bid for part of the contract.

—Notice is given that an application will be made at the next session of Dominion Parliament for an act incorporating a concern to be called the W. C. Edwards Company, for the purpose of carrying on in Canada, the United States and elsewhere the business of lumber merchants and manufacturers of timber and lumber in all the branches, with power to acquire the partnership business and property now owned by John Archibald Cameron, of William Cameron Edwards, of Rockland, John Cameron Edwards, of Ottawa, and James Wood, of Rockland.

—Lumbering operations are active at Penetang. The C. Beck Manufacturing Co. will take out a large quantity of logs from their limits up the lakes, and are also getting out a heavy stock of logs in the township of Tiny. They expect to run their large mills their full strength, as soon as navigation opens. Davidson, of Highland Point, is putting in good work in the woods. Logs are being delivered at McGibbon's mills for next season's cutting. W. H. Belyea is getting out a large quantity of cordwood for shipment to Toronto and Hamilton.

—The interests represented by the Wood, Pulp and Paper syndicate are very large, as their mills will during the present winter use not less than 20,000 cords of spruce wood, producing daily more than 100 tons of dry pulp. The pulp makers of the U. S. recognize that their only resource, when the supply on their side the line is exhausted, must come from the Canadian forests; and already the agents of the new syndicate are in the Georgian Bay territory, buying spruce forests by the hundreds of acres. The cutting and preparing of the wood for shipment will be contracted to Canadians.

—The woods at Rat Portage are reported to be swarming with loggers. Nearly 50,000,000 feet, it is expected, will be cut this winter. The following firms have camps in the woods: Cameron & Kennedy, Ross, Hall & Brown, K. L. Mfg. Co., Dick, Banning & Co., Hughes & Atkinson. The Keewatin Milling Co. have awarded a contract to Mr. Rogue to take out 2,000,000 stave bolts, and he has a gang of men at work at Pine River on the contract. The C.P.R. have given contracts for over 400,000 ties and the following have men in the woods taking out their respective quantities: Egan Bros. 100,000; Deninson, 100,000; G. H. Strevel, 50,000; Holmes & Gardner, 50,000; H. Burton, 20,000; King, of Fort William, 30,000; E. A. Carpenter, 50,000; Jno. Boyd, 10,000; W. Margach, 20,000.

—About two years ago the steam barge Victor, carrying a cargo of Canadian lumber, was wrecked near Sand Beach, on the Michigan shore of Lake Huron. The lumber drifted on to the beach and was picked up by a number of persons. The master of the vessel claimed the lumber, and he sold it to the parties who had it. Captain Silversides, the master of the vessel, was arrested and taken to Detroit by the United States officers, under a charge of selling lumber to people without paying the duty. He was discharged without any trial, and last summer Inspector Day, of Port Huron, collected the government duty from several parties, they paying twice on this lumber. Now a lumberman, McGibbon, of Sarnia, brings suit against the people who got the lumber.

—A striking example of woman's courage and fortitude comes from near Bear Lake, in the vicinity of the depot of J. R. Booth, the Ottawa lumberman. A married step-daughter of a well-known hunter named Peter Duck started to visit some traps, and arranged to be away one night in the bush. She did not return, and her half-brother started to hunt her up, and after considerable search found her lying in the snow with a babe of seven or eight days old pressed closely to her breast and as well wrapped up as possible. The little one was all right, snug and warm, but the mother was completely exhausted and almost famished. Being taken sick the night she left she was unable for nine days to leave the shelter she managed to construct for herself. With her gun she killed a squirrel from where she sat, which was the only sustenance she had during the whole nine days, beyond what she had taken with her for the one day.

—The auction sale of Pierce & Co.'s limits, plant, supplies, water power, sawmills, etc., took place at Ottawa on the 3rd inst. There was a large attendance of leading lumbermen from Ottawa and other parts of the country and several from the States. The bidding was rather slow to begin with. It was estimated that upwards of \$50,000,000 of capital invested in the lumber trade was represented. The first parcel, the Mattawa limits, about 315 square miles, was bought by Hon. E. H. Bronson for \$40,500. Parcel No. 2, known as the Bissett's loch and Petewawa limits, and comprising crown timber licenses amounting to 312 square miles, also went to Hon. E. H. Bronson for \$10,200. The mills, water power, piling grounds, platforms and shops were knocked down to ex-Ald. W. Hutchison for \$112,500. License No. 86, area 13 square miles, township of Darling, went to M. L. Russell for \$500, and the same gentleman got four other licenses for \$1000, \$500, \$3000 and \$2,250 respectively. The Coulonge and Temiscamingue limits were withdrawn. Mr. Hutchison's purchase of the mills was on behalf of the Ahern and Soper electric interests, and is one of the largest real estate deals made in Ottawa for some time. It is reported that one of the mills alone cost \$150,000, exclusive of the water lots, which are among the most valuable at the Chaudiere, so that the purchasers have evidently secured a bargain.

—The Dominion Government have amended their timber license regulations. Hitherto in the issue of yearly licenses to cut timber in Dominion lands every licensee was compelled to

have in operation within one year from a date to be fixed in the license, and keep in operation for at least six months of each year of his holding, a sawmill in connection with his berth capable of cutting daily at least 1,000 feet, board measure, of lumber for every 2½ square miles of the area licensed. This provision was enacted in order to encourage the establishment of mills for the convenience of settlers who were removed from railways and other means of supplying themselves with lumber, and at a time when timber berths were granted without competition. The result has been the establishment of a very considerable number of mills, and every facility is now afforded for the purchase of manufactured lumber in almost every settlement in Manitoba, the North-west territories, and within the railway belt in British Columbia. Under these circumstances the Government is of the opinion that the time has now arrived when a licensee should not be called to construct a mill unless the establishment thereof would supply a local need, and the regulations governing the issue of licenses have accordingly been amended so that in respect of all licenses hereafter granted the licensee shall be required to construct a mill and commence the manufacture of lumber from the timber on the tract covered by his license, within one year from the date when he is notified by the proper officer of the Department of the Interior that the Minister of the Interior regards such a step necessary or expedient in the public interest.

QUEBEC.

—The Export Lumber Company has made application to the Harbor Commissioners of Montreal for 1,500 feet in length of wharfrage for next season. This is evidently in anticipation of a revival of the demand for lumber from South American ports.

NEW BRUNSWICK AND NOVA SCOTIA.

—Alexander Nelson, Bridgewater, N.S., has assigned with liabilities of \$55,000, the People's bank being a creditor for \$25,000.

—The Metegan Lumber Mills, Digby, N.S., were burned the early part of the year. A policy of \$1,500 expired four hours before the fire broke out.

—The schooner Romeo has arrived at Portland, Me., from St. John, N.B., with 1,500,000 shingles for Rufus Deering & Co. This is an unusual importation at this season of the year.

—The Valley Mills, owned by Captain B. Raymond, at Digby, N.S., which have been undergoing considerable repairs, are now running again. Besides ordinary lumber, boxes, matched sheeting, house moulding and light stuff of this nature is manufactured. A good local business is done and a considerable trade with the United States.

—The lack of snow is proving a serious drawback to lumbering operations in New Brunswick. A despatch of January 17th says that the crews of six firms that cut on the St. John and tributaries have returned to Fredericton. Nothing has been done on the upper St. John, in Madawaska and Victoria counties, while in the north the quantity of logs lying around is small.

BRITISH COLUMBIA.

—The Brunette Sawmill Co. is going to build a large extension to its factory at Sapperton.

—Mr. Losee's new shingle mill, Victoria, with a capacity of 68,000 a day, has started operations.

—The Vancouver Steamship Company is building a fine steamer at their shipyard, English Bay.

—A. Haslam, of Nanaimo, is contemplating building a mill for export trade, in addition to the mill for local work he now owns.

—George Cassady & Co., of False Creek, Vancouver, are adding a band sawmill to what is already one of the best equipped sash and door plants on the coast.

—The American barque 'Hesper' has been chartered to load lumber at the Hastings mill for Shanghai. She sailed from Vancouver on the 4th of July last for Shanghai with a cargo from the Moodyville mills.

—H. H. Spicer, lumber and shingle manufacturer, Vancouver, is making large preparations for his shingle trade in the spring. His shingle mill has a capacity of 160,000 per day. He has lately added a number of new machines to his plant.

—J. A. Christie, of Brandon, Man., has within the last few days inspected the mills round New Westminster and Vancouver. He goes to Puget Sound before returning east. He stated he was surprised at the size of the timber and the facility with which it is handled, on account of the way steam is used to save labor. A busy spring and summer is expected in the British Columbia lumber trade.

—A shipment of seven cars of timber, the like of which has never before crossed the continent, left the yard of the Hastings sawmill, Vancouver, on the 30th ult. Two of the cars contain only three pieces of timber, both being required for its length. These bear in large letters on the sides the significant

motto: "British Columbia Toothpicks." Two other cars have smaller pieces, yet of the respectable size of 21x21 inches, and upwards of 60 feet in length, but on these two cars are the largest piece of the shipment, it being 36 inches square and 68 feet in length, without doubt the largest piece ever shipped out of British Columbia. The three remaining cars are required for five pieces each 80 feet in length. It was with considerable difficulty that these pieces were loaded and arranged so as to take the curves. Stout uprights of wood project from the platform of the flat cars, and these are held together at the top by heavy rods of iron, reaching from one to the other across the load. The timbers rest on sleepers of scantling at the rear of the foremost car, and front of the second, and these are greased so that at the curves the timbers may move sideways slightly, and then come back to their place when the train straightens again. Three cars are required for the longest pieces, but very little weight of these rests on the rear car, it being required for coupling, as the ends of the timber would extend beyond the length of two cars. On either side of these cars in large letters on white cotton is the legend: "From the British Columbia Mills, Timber and Trading Co., Hastings Sawmill Branch, Vancouver, B.C." The shipment, with an engine attached, was photographed. This timber is consigned to the Montreal Harbor Commissioners, to be used in the construction of a dredge. The large pieces form the movable corner pieces, which hold the dredge in position while at work, and the pieces 80 feet long are for the crane on the dredge. The trees from which these gigantic pieces of timber were sawn, came from the B. C. Mills, Timber and Trading Co.'s claim near Mud Bay, and were taken out by way of Port Kells and down the Fraser River. The following is the number of pieces and their dimensions:—

	feet.
3 pieces, 36x36—60 feet.....	19,440
1 piece, 36x36—68 feet.....	
2 pieces, 21x21—66 feet.....	
1 piece, 24x24—60 feet.....	
3 pieces, 21x21—62 feet.....	21,911
3 pieces, 21x21—60 feet.....	
3 pieces, 21x21—64 feet.....	
5 pieces, 14x16—80 feet.....	21,138

Grand total.....62,189

MANITOBA AND NORTHWEST.

—Captain Robinson, of Selkirk, has purchased the sawmill outfit of Brown, Rutherford and Neilson at Fisher Bay, Lake Winnipeg, and has fifty men at work getting out logs.

—The sawmill at Prince Albert, one of the first in the district, has been considerably improved lately, and has in connection with it a shingle mill and planing mill; daily capacity 80,000 feet. Moore and Macdowall are the proprietors, and employ about 75 men. They have a large gang of men in the woods.

GENERAL.

—Wisconsin lumbermen report fine logging weather at all the leading camps.

—Three teams hauling logs for Chas. May at Peshtigo, Wis., have averaged 70,000 per day. Pretty good work.

—A report from Marquette, Mich., says that there is plenty of snow at present and most of the camps are hauling.

—J. E. Henry, a lumberman of Zealand, New Hampshire, has been fined \$1000 for importing Canadian workmen.

—Since 1886 the value of lumber shipments from Humboldt Bay, California, has averaged over \$3,000,000 annually.

—A fir-tree ten feet in diameter has been discovered in Washington. Its lower limbs are two hundred feet from the ground.

—A new sawmill with a capacity of 30,000 feet daily and a supply of 8,000,000 feet logs to work on, has begun operations at Kemus, Mich.

—Tannic acid is to be made at Knoxville, Tenn., by a concern which expects to use some ten to fifteen thousand cords of bark from Chestnut Oak annually.

—There is talk in lumber circles of the formation of a \$5,000,000 syndicate to control the output and prices of sugar pine and other choice lumber in California.

—John Daly & Bros., of Grand Rapids, Mich., have secured of Antoine Arpin, an eight-day option on his tract of timber on Yellow river, eighteen miles west of here, for \$56,000. This tract has about 9,250,000 feet of white pine, besides hardwood timber.

—Reports received from the Maine lumber districts during the early part of the month indicate that the lumbermen in the northern part of that State have had a hard time. The recent rains broke up the ice on the rivers, and traveling by land to the nearest settlements was very difficult. Provisions began to fail them, so they had to live on short rations. To add to their troubles the grip broke out among them, requiring medical aid, which was obtained with great difficulty.

—Throughout Michigan and Wisconsin the establishment of woodworking plants is rapidly enhancing the value of hardwood timber, and owners of that class of stumpage are beginning to appreciate the fact that they have a mine of wealth therein.

—Grip is developing with remarkable severity in the mining and lumbering camps about Duluth. At the lumber camps, where 4,000 men are at work, a good deal of grip is reported and in several an almost complete suspension of work has been ordered.

—The Gray's Harbor Lumber Company, Tacoma, Wash., has just received an order from the United States Government for 100 pieces of heavy timber for gun carriages. The timber is to be shipped to Fort Point, San Francisco, and must be got out within three weeks.

—The committee representing the associated lumber producers of Pennsylvania and western New York have determined upon an advance in prices of hemlock lumber of 50 cents per 1,000 feet. It was also decided that the production shall be restricted at least 25 per cent.

—During last year there were 300,000,000 feet of timber cut in the Adirondack forests of New York State. Of the whole quantity, two-thirds was made into lumber, and the remainder into paper pulps, and all by the wood pulp mills in the Adirondack region, the product being 109,200 tons of wood pulp.

—The amount of lumber on the Saginaw docks will closely approximate 300,000,000 feet. In 1890 at the close there were 342,000,000 feet on dock. At present the stocks on hand, exclusive of those held in the yards, will approximate 140,000,000 feet, of which fully one-fourth is reported as sold for next season's delivery.

—During the year 1891 there were surveyed at the port of Bangor 15,945,963 feet of dry pine, 7,168,808 feet of green pine, 118,205,741 feet of spruce, and 23,664,844 feet of hemlock, juniper, cedar, etc.—a total of 164,985,356 feet. This is 14,000,000 less than in 1890, and 5,000,000 less than in 1889. The greatest falling off was in spruce and pine, and the decline was chiefly due to the demoralization of the New York market.

—The Mackinaw Lumber Company has secured a decree for \$6,165.84 against the steamer Kittie M. Forbes and the schooner Mable Wilson. A raft containing 26,000 telegraph poles was sent by the company from Georgian Bay to Marine City in the fall of 1888. While in the St. Clair River the schooner, in tow of the steamer, collided with the raft and 5,000 poles were lost. The vessels were libelled to cover the loss with the above result.

—Several months before the failure of the J. E. Potts Salt & Lumber Co., Marsh Brothers, of Mio, Oscoda county, delivered to them under contract of sale thirteen horses, one wagon and several sets of harness. After the mortgages were filed Marsh Brothers replevined the property, but only \$350 of it could be found. George W. Marsh has filed a petition asking that the firm be made preferred creditors of the insolvent company for \$2,200, the value of the remainder of the property.

—Speaking of the hardwood timber in the vicinity of Traverse City, Mich., Judge J. G. Ramsdell, one of the pioneers of that section, says that it will pan out more money than the pine did by a large per cent. This year the hardwood mills in the neighborhood of Traverse City will cut at least 25,000,000 feet. The Grielick Brothers will cut 10,000,000 feet, the Brietners 5,000,000 feet of hardwood. White & Barker will cut 25,000,000 feet of hardwood and hemlock. J. E. Grielick will cut 2,000,000 feet of hardwood. The hardwood of that locality is mainly maple and elm, with a small quantity of black oak. There is just enough snow on the ground to delight the hardwood men and facilitate their work in the woods.

—During the last few months several large lumber deals have been made in the vicinity of Sault Ste. Marie, Mich. More lumbering is being done this year than in many years past. Negotiations are now going on for the erection of new mills here, but nothing has been made public as yet. The new Ainsworth-Alexander mill will be running early in the spring, and has a large contract covering several years before them. Nease & Co. are now running at full capacity and expect to enlarge during the year. Besides these, M. Carman and Paul & Voorhis, the two large firms of shingle manufacturers, have decided to operate from here, and while their mills will be out of the city their headquarters will remain here. Hall & Munsen, of Bay Mills, are enlarging as fast as possible, and while they operate from Bay Mills still, their property greatly aids that of the Soo. Lyman Feltus and the Russells expect to increase the output of their mills this year as do the other firms in this vicinity. More pulp wood will be cut than ever before. Besides the firms which have operated in this vicinity in past years, Frank Perry and Arthur Crawford have large contracts outside of the former's large lumber deals. More money will be expended in the Soo this year by lumbermen than for year's past.



James Spaight, of the firm of Spaight & Son, extensive ship-owners and timber merchants, Limerick, Ireland, died during the past month.

Just as we go to press we regret to learn that Mr. James McLaren, the millionaire lumberman of the Ottawa, is critically ill at his home in Buckingham, Que.

Henry Croft, a well-known and highly respected member of the English timber trade, is dead. He resided at Wimbledon, near London, and death was from influenza.

Mr. John Donogh, of the firm of Donogh & Oliver, of this city, has again been elected a member of the council of the Toronto Board of Trade. Mr. Donogh is too valuable a man to be spared.

Mr. W. Gambling, builder, of Northam, Southampton, Eng., died January 30th, at the age of 82. He was the builder of the Hartley Institution and also the Royal Vork Music Hall, Above Bar, Southampton.

John Kennedy, formerly engaged in the lumber trade in this city, died on the 14th ult. of heart failure, that had followed la grippe. Deceased was 38 years of age, and at time of death was of the firm of Kennedy and Kennedy, proprietors of the Nealon House.

Mr. Morton, head shipper of the Waterous Engine Works Co., Brantford, Ont., died of la grippe a few days ago, and as we go to press we regret to learn of the serious illness of Mr. Waterous himself, the head of the firm. Some fears are entertained for his recovery.

Wm. Jackson, late of Mobile and Pascagoula, has taken up his residence in London, Eng., and opened an office as an inspector, surveyor and cutter of pitch pine, oak, spruce, and pine deals and other woods. He is reported to have had a practical experience in the southern States and Canada.

Ryerson, Hill & Co., of Muskegon, Mich., have presented eight of their old mill employes with eighty acres of land apiece. This is land from which the timber has been cut and is said to be of fertile soil and will make excellent farms. The land lies near Nawago village, thirty-five miles from Muskegon.

George S. Chamberlain, a veteran lumber inspector and commission dealer, died at Saginaw, Mich., on the 19th ult., from pneumonia, after an illness of four days, aged 76 years. He came to Michigan in 1869 from Rochester, and was widely known by lumbermen in this section as a conscientious and honorable business man.

Mr. C. M. Beecher, manager of the Hastings sawmill, Vancouver, B.C., who has recently returned home from a business trip to Manitoba, Ottawa, Montreal and Toronto, expresses the opinion that during the coming summer more British Columbia timber will be shipped to Ontario and Quebec than for any previous year.

Hon. Russell A. Alger, the millionaire lumberman of Michigan, and George M. Pullman, the car builder, are said to be large stockholders in the Nicaragua Canal project. The former gentleman has associated with him a syndicate of gentlemen having heavy timber-land investments on the Pacific coast who are interested in the Nicaragua canal.

J. H. Van Clief, an old citizen of Staten Island, N.Y., and a prominent lumber merchant of Port Richmond, died at his home at that place on January 21st, in his eightieth year. Mr. Van Clief was born in New York City in 1812, but made his home on Staten Island since five years of age. His son, William H., has managed his business for some years past.

John S. Woods, a member of the Maritime Exchange, of New York, N.Y., died of la grippe in the 62nd year of his age, at his home 330 West Twentieth Street, on the 25th ult. He was born in Belfast and came to America forty years ago, where he found employment as carpenter and shipbuilder in the navy yard. He has been interested for the last twenty years in Georgia yellow pine and Canadian lumber.

Charles Whitlaw, for the past twelve years the efficient and popular manager of the Montreal Saw Works, has severed his connection with this concern to engage in silver mining in British Columbia, and will leave for his new field of labors almost immediately. Previous to assuming these duties he will represent his old firm on the Pacific coast, covering all important territory between Ontario and the coast, where saw mills are located. Wherever known, friend "Charlie" has ever been popular; a host of friends in the east will personally regret his departure, while they will wish him every success in his new undertakings.

PLEA FOR A RENEWAL OF THE LOG DUTY.

BY WILLIAM LITTLE, MONTREAL, QUE.

WHEN in 1886 I drew the attention of the Government at Ottawa to the anomalous condition that for twenty years had existed, and the ruinous effects thereby caused to Canadian interests in permitting Canadian pine and spruce sawlogs to be exported to the United States at a rate of duty on export, but one-half of that imposed by the American Government on Canadian pine and spruce lumber—the Canadian export duty being then but \$1 per thousand feet on the sawlogs, while the United States import duty was \$2 per thousand on the sawn lumber—our Government immediately obtained authority from Parliament to increase the export duty, which was then done, to \$3 per thousand feet on pine sawlogs, a rate from which, in my opinion, it should on no account have been reduced, if we were to have the benefit of manufacturing the timber in this country, for it did not even then place the Canadian operator on an equal footing, in the United States market, with the American stocking his mills with Canadian pine sawlogs, without taking into consideration a matter of far greater importance than this or the loss of revenue—the loss to the labor of the country in being deprived of the work of manufacturing and freighting the product to market, and the many other incidental advantages connected therewith.

But notwithstanding all this the Government subsequently, for no satisfactory reason that I have ever heard, most unwisely reduced the rate of export duty to \$2 per thousand feet—the same rate as the American import duty on the lumber—a rate so non-protective, and so manifestly in favour of American manufacturers, that they continued buying, at merely nominal prices, till they secured control of millions of acres of our pine and spruce timber limits, in the Georgian Bay district and elsewhere, to furnish stock for their mills, as their home supplies of these woods were becoming rapidly exhausted—a fact which of itself showed the great impropriety of the reduction in the rate of export duty.

RUINOUS, HOWEVER, AS WERE THE CONDITIONS then existing, the action of the Government last year in entirely removing the export duty from sawlogs, appears to me to be simply national suicide, by encouraging the immediate destruction of our pine and spruce forests—one of our chief sources of wealth—for the sole advantage of American millowners, who, I regret to have to say, never let slip an opportunity that they can take advantage of, to show their hostility to Canadian interests. This action on the part of our Government has already proved itself so detrimental to the milling industry of this country that Canadian millowners find it more to their interest to dispose of their timber limits to Americans than to try to compete with them by sawing the logs on this side under such adverse circumstances, a condition which, if reversed, the Americans would not tolerate for a single hour.

Even if we had an excess of timber, which unfortunately we have not, this policy would still be reprehensible, but when it should be known that we have no more than is required to supply the milling industry of this country for a comparatively short period of time, it is simply disastrous. The seriousness of the situation may be seen, when investigation would show that nearly the whole of the timber, tributary to the streams, entering into Georgian Bay and Lake Superior, has passed into the control of Michigan millowners, who now boast through their papers, that they have secured 3,000,000,000 feet of our timber at prices ranging from 75 cents to \$2 per thousand feet for stumpage, that would have cost them from \$5 to \$7 per thousand at home—a clear loss to Canada in the start of fully \$10,000,000, but trifling as compared with the great loss to the country of the timber itself, the logs to be rafted over to Michigan and elsewhere, to stock their mills with the products of our forests, and fill their markets with lumber that would otherwise be supplied by our own manufacturers; and Canada is to be deprived, for all time to come, of any further advantage of this portion of her timber property, except the paltry sums paid by way of bonus to a few speculators and others, many of whom obtained these limits from the provinces at merely nominal rates, under the presumed idea that this country would, in any event, receive the further benefit of the labor to be performed

in the country, in manufacturing and shipping the product to market. If it were not under such anticipation, I am satisfied that the people of the country would never have consented to allow the

ALIENATION OF THEIR TIMBER PROPERTY,

in the enormous blocks granted to individual applicants, and the fact that the licenses were made renewable only from year to year was, no doubt, done with the object of enabling the Government to protect itself by their cancellation, at the end of any year, in the event of an injurious condition arising as that now existing, by which the country might be despoiled of its timber property without some compensating advantage.

Irrespective, however, of any of the foregoing most important considerations, I am prepared to show, to any unprejudiced person, that under existing conditions, Michigan millowners possess so many advantages over our own operators that the difference in their favor would far exceed \$2 per thousand feet on the average product, and that the export duty, instead of having been removed, should have been restored to its former rate of \$3 per thousand feet at least, to at all compensate the Canadian millowner for the disadvantages under which he labors in competing in the United States markets with his Michigan rival, and I am confident that if matters are left in their present unsatisfactory condition for two years longer there will not be a sawmill in operation, except for the local trade, at that time in that whole section of country; for those owning mills will find they can dispose of their logs, even those lying in their mill booms, to Americans, to be sawn in Michigan, for more money than they could get for their lumber on this side when sawn. Such was the case on the Lake Erie shore, at a time, however, when it was considered almost an impertinence to mention protection to Canadian industries, and such will be the case in the district under review if this ruinous policy be any longer continued.

And here I might mention the fact, lest it might be supposed that this article has any political bearing, except that of the general welfare, that among those who have expressed through the press views identical with my own, there is no one who has more persistently advocated the retention of the log export duty, at a rate sufficiently high to protect our forests, than the Hon. H. G. Joly de Lotbiniere, a gentleman not only possessed of the intelligence to understand, but who has taken the trouble to inform himself of the momentous importance to Canada of forest protection.

In an interesting chapter by him on "Forestry in Canada," published last year by the Quebec Legislature, he says:—

"It is difficult to awaken any interest in the question (on forestry) among us. The pride of the Canadian forest, the white pine, is getting scarce, the proportion of first-class wood is decreasing year by year, while the distance from which it is brought is increasing. How many millowners, who would have scorned sawing spruce logs a few years ago, are only too glad to get them now, and though spruce reproduces itself much more rapidly than pine, we can see the time when it will get very scarce at the present rate of cutting."

And said, respecting the export duty:—

"We are striving to increase the number of our people; we deplore the large emigration from Canada to the United States. Shall we encourage that emigration by sending away the logs which feed our saw mills, so that they may get sawed by our neighbours? The sawyer will follow the logs, and we shall drive away thousands of industrious men who will follow the raw material in which they find their work," and concludes: "Unless we give up forever all consideration for the welfare of our own country, we must retain our export duty on logs, thereby protecting our forests and securing work for our own people."

I am also authorized to say that similar views are held by the Hon. Messrs. Ward and Tourville, leading manufacturers of lumber, resident in this city.

Having had personal experience of the ruinous effects to the milling industry on the shore of Lake Erie,

I SPEAK ADVISEDLY WHEN I SAY

that, if the export duty were placed \$2 per thousand higher than the American import duty on the sawn lumber, Michigan millowners would still tow the logs over to their mills rather than saw them into lumber on this side, on account of the many advantages they possess over the manufacture of the stock in Canada, among which may be mentioned the cheaper rate at which logs can be towed as compared with freighting the lumber in vessels, the better condition in which the stock is

delivered in market, free from splits, checks and weather stains, and the additional value, delivered without cost or duty, of the rough products for pickets, lath, shingles and fuel for their salt blocks, which the Canadian operator, owing to his isolated position, distance from market, and cost of freight, finds in many instances a nuisance, together with the very great advantage of being in a large market where buyers go to purchase stock which can be supplied them at any time desired by rail or water, instead of having to send forward their lumber at the convenience of vessel owners, and accept such prices as they can get from buyers, who at the time of the arrival of their lumber in market may neither want it, nor have any convenient place to receive it; the writer knows, from his own experience, that the advantage possessed by those towing logs from Canadian points on Lake Erie to Buffalo and Tonawanda, over those manufacturing in that part of Canada, were more than \$4 per 1,000 feet, and had the effect of bankrupting every Canadian manufacturer rash enough to continue in the trade competing under such adverse conditions, a fact which enabled the Hon. Mr. Weston, of Michigan, some years ago, to make the painfully true remark:—

"On the north shore of Lake Erie the Canadian sawmills are in ruins, but the mills at Tonawanda are employing thousands of American workmen manufacturing Canadian logs towed from the Erie north shore. The Saginaw mills are running out of stock and looking to Georgian Bay for Canadian logs to cross the Huron lake to keep their mills and men at work."

To show that Michigan millmen have not the least intention that this country should reap any of the benefits to be derived from the manufacture of the logs into lumber in Canada, I quote from the argument made in the memorial presented to the Committee of Ways and Means in the House of Representatives at Washington in February of last year by Judge Edget, of Saginaw, the gentleman who was retained by the Michigan lumbermen, principally those, too, who had acquired extensive timber limits in Canada, to try by legislation

THERE TO COERCE CANADA

into granting them exceptional advantages. This memorial states:—

"As the supplies of timber available for manufacture at Saginaw, Alpena, Cheboygan and other points in Michigan decreased, the Michigan lumbermen naturally commenced to purchase Canadian timber which could be made tributary to their present milling districts; and from 2,000,000,000 to 3,000,000,000 feet of standing timber situated on the streams flowing into Georgian Bay have been acquired and are now held for manufacture at Saginaw, Tawas, Alpena, Cheboygan and other Michigan cities, and large quantities have already been safely and successfully towed across Lake Huron in booms at small expense and manufactured at the points named more cheaply than could be done by investing the capital required to erect new plant in Canada.

"No sooner were these purchases made and logs commenced to be exported in considerable quantities by the American owners than the Dominion Government raised the export duty to \$2 and subsequently without any hearing of the parties to be affected raised the duty to \$3, and then reduced it to \$2, where it now remains, and will until the Privy Council shall by another star chamber edict raise the same to some different amount. The result of all this arbitrary action is that no man can with safety lumbar his timber or rely on that source of supply to stock a Michigan mill. And while the \$2 a thousand levied may not absolutely prohibit the exportation of the logs, if it remained settled, the certainty that the Privy Council may without warning raise the duty to \$3, \$4 or \$5 a thousand at any time is calculated to work a complete prohibition against the manufacture of the same in Michigan.

"A perfectly apparent result of the policy is that the Michigan manufacturer, unable to bring the logs to him, must withdraw his capital from the district where it is now invested and establish his mills, planing mills and other factories in Canada where the log is to be got. But this is not all. In dealing with the question it must be borne in view that the supply of logs for the existing mills in Michigan is rapidly diminishing, and unless new producing tributary territory is opened up, the immense capital now invested in both lumber and salt plants in Michigan is threatened with great loss."

And then, instead of telling Congress that being thus

DEPENDENT ON CANADA

for their continued existence, it would, therefore, be prudent to remove the duties from lumber and all Canadian forest products, so that Canadians might have no further causes of complaint against them, coolly recommend Congress to adopt the policy of coercion, and say:—

"This Government, in the interests of Michigan and the people at large, has a plain duty to perform, that some appropriate legislation should be adopted to compel the Dominion Government to recede from its unjust and arbitrary duty on logs."

Then follows the inaccurate and misleading statement that has been heralded broadcast throughout the land

and which has been even circulated by some of our respectable Canadian papers, that should have known better, that:—

"It is conceded that Canada has always heretofore received vastly more timber from the United States than has ever been or is likely to be brought from the Dominion to the States."

While considerable of what is stated in the foregoing is undoubtedly true, we must presume that this last statement was

UTTERED IN IGNORANCE OF THE FACTS.

for the statement itself is absolutely false, the "vastly more timber from the United States, etc.," therein referred to simply passed as it were in transit through Canada to its destination in the United States, or elsewhere as they choose to send it, but Canada "received" none of it; and if the American Government had imposed an export duty (which, by the way, it did on cotton when it considered it in its interest to do so, notwithstanding it was said to be unconstitutional) of even \$10 per thousand on this timber it would have concerned no one but themselves.

The statement, as may be observed, was most ingeniously worded, and but that the memorial had been signed by most of the elite of the Michigan lumber barons, one might have thought it had been done "with intent to deceive," for had it said that Canada imported this timber, our trade reports would have at once shown its falsity. The timber referred to is, of course, that owned by Americans, near the headwaters of the River St. John and its tributaries in the State of Maine, consisting chiefly of spruce and cedar, and amounting to something like 100,000,000 feet annually, which is driven down this river under stipulations contained in the Ashburton Webster Treaty of 1846, the third article of which says:—

"That all the produce of the forest in logs, lumber, timber, boards, staves or shingles, or of agriculture, not being manufactured, grown on any of these parts of the State of Maine watered by the River St. John or its tributaries, shall have free access into and through the said river and its said tributaries, having their source within the State of Maine, to and from the seaport at the mouth of the said river St. John, and to and around the falls of said river, either by boats, rafts or other conveyance; that when within the province of New Brunswick the said produce shall be dealt with as if it were the produce of the said province."

And now that the American lumbermen have brought this matter forward in this obtrusive manner, it is but right to enquire how long will our Government continue to permit Americans to make an invidious discrimination against the employment of Canadian labor in Canada; for lest our country should derive the least benefit whatever from this timber in its passage through Canada, although it is a continuous nuisance to our own millmen from the time it enters the country till, and even after, it leaves it, as it then supplies the markets that would otherwise be supplied with our own timber, their Government requires that they shall employ American citizens only, even when

SAWING THEIR LOGS IN CANADA,

to entitle their lumber to free entry into the United States; and only American citizens are, therefore, employed in the work. The clause in the United States tariff relating to this subject is:

"The products of the forests of the State of Maine, upon the St. John River and its tributaries, owned by American citizens, and sawed or hewn in the province of New Brunswick by American citizens, the same being unmanufactured, in whole or in part, which is now admitted into the ports of the United States free of duty, shall continue to be so admitted under such regulations as the Secretary of the Treasury shall from time to time prescribe."

But as the treaty itself stipulates that "the produce (of the forest) should be dealt with as if it were the produce of the province," which makes no discrimination as to who may be employed in its sawmills, since the employment of American citizens entitles them to this advantage of \$2 per thousand on their lumber over our own on entering their markets, there is this additional reason why this discrimination against Canadian labor should not be permitted to exist. I am satisfied that if one were to say, in an American mill, that only Canadian labor would be employed, the mill would not be permitted to run for a single hour.

So, as I have heretofore remarked, the Canadian lumberman is handicapped in the east by \$2 per thousand on his spruce lumber, and in the west \$2 per thou-

sand on his pine lumber, and yet the American lumberman is not happy.

The same unsatisfactory condition also exists on the Pacific coast, for the Americans by restricting the reduction made in their lumber tariff last year from \$2 to \$1 per thousand feet to white pine only, the produce of British Columbia sawmills gets no advantage whatever from even this reduction, their fir and cedar having to pay \$2 per thousand feet on entering the United States, the same as our eastern spruce and red pine. On this account, and the acknowledged superiority of British Columbia timber, logs are towed over from the Canadian side to be sawn in American mills.

And here I would say, now that the Americans must have our lumber, on our own terms or do without it, that unless we are content to have our country devastated of its timber—the most valuable resource we possess—the Government should at once restore the export duty to \$3 per thousand on pine and \$2 per thousand on spruce and other sawlogs, and also insist that there shall be no discrimination against Canadian labor in any Canadian mill, and when the American people are prepared to remove every vestige of duty from Canadian forest products it will be the proper time to consider any reduction from these rates of duty, which should, however, on no account be so reduced as to in any manner encourage the export of our sawlogs.

I think that a careful consideration of the case, as presented by the Michigan millmen, should convince any unbiassed person of the correctness of my position in this matter, that the serious loss their property is threatened with is

OWING TO A TOO HASTY DESTRUCTION

of their once magnificent and supposed inexhaustible forests, and such will assuredly be our condition if we continue treating our forest property with the indifference with which we have been doing.

And reviewing their argument I must say that as a Canadian I much prefer that this 3,000,000,000 feet of Canadian timber should be sawn here and tend to build up a number of Canadian towns and villages rather than "Saginaw, Alpena, Tawas, Cheboygan and other Michigan cities" even if the logs can be "manufactured at the points named more cheaply than could be done by investing the capital required to erect new plant in Canada" and though I am well aware "large quantities have already been safely and successfully towed across Lake Huron in booms at small expense" by American tug-boats, that our own mills should have the sawing, and our own railways and vessels the freighting, and that we even in Montreal might have the shipping of this timber, amounting to fully 4,000,000 tons to England and elsewhere. Or if we must lose all this, as they say, "the \$2 a thousand levied may not prohibit the exportation of the logs, if it remained settled," that our Government should receive the \$6,000,000 or, rather better, \$9,000,000 in revenue on the export of these 3,000,000,000 feet of Canadian pine sawlogs; for this, unfortunately for us, is all we may ever expect to get from this timber; for no Canadian mill will saw a log, or Canadian railway or vessel freight a board of it. Nor can I see what great injury it would have been to Canada if "the Michigan manufacturer, unable to bring the logs to him, must withdraw his capital from the district where it is now invested and establish his mills, planing mills and other factories in Canada, where the log is to be got."

It rather seems to me this would have been the correct thing under the circumstances, and though it might be as well for our own people to have the benefit of doing all this, yet we would not even object to the Michigan manufacturer doing it and reaping all the benefit therefrom, provided, of course, the work is done here, for, after all, individually, he is not such a bad sort of a fellow. And when here he would have soon learned to "know how it is himself"; and would then have enjoyed equally with ourselves the privilege of contributing to the revenues of his country the same rate of import duty on his lumber he considered so equitable on the part of Canadians.

Now, however, it is, of course, a matter of indifference to us what amount of duty the Americans choose to impose upon pine and spruce lumber as they simply have to pay the whole of it themselves.

And I should also greatly prefer now that "the supply of logs for the existing mills in Michigan is rapidly diminishing, and unless new producing tributary territory is opened up, the immense capital now invested in both lumber and salt plants in Michigan is threatened with great loss" that our own people should reap the benefit of increased prices for their lumber, occasioned by a reduced American production, rather than have our country devastated of its timber, entirely in their interest too, in the reckless manner they are now forced to admit they have devastated their own country. Yes, I would prefer this, even if they had to purchase other fuel for their salt works, and that our own railways and vessels should have the benefit of freighting the produce of our own timber to market, even if American tug boats had to turn back again to towing American vessels instead of Canadian sawlogs.

In a word, I prefer that our own country should have what I insist it has a right to expect from our Government, the

PROTECTION OF OUR TIMBER PROPERTY,

so that our own people may have every benefit of every possible nature to be derived from it—a right which our own Government seems determined to deny us, but which even fair-minded Americans admit we are justly entitled to, as may be seen from the remarks made by the late S. O. Fisher, late member of Congress from Michigan, one of the leading lumbermen of the Saginaw district, who said, in all fairness, when referring to the subject of getting Canadian sawlogs to supply their mills:—

"As soon as we do anything of that sort up will go the duty to \$3 or \$4 a thousand feet. They (the Canadians) would not let us rob them any more than we would let them rob us."

Mr. Fisher is, of course, right so far as his own people are concerned. He knows quite well that, if the conditions were reversed, they would not tolerate this injustice for a single minute—that the Americans "would not let us rob them," though we may be so unwise as to "let them rob us."

A SMOKING TREE.

NEWTON, a vigorous mountain town west of Charlotte, N.C., has a curiosity that beats by a large majority the rain tree which gained such notoriety in Charlotte in 1886. It is a smoking tree, and baffles all efforts at explanation. It is a white mulberry tree, and stands on the sidewalk in front of the residence of Levi Yoder.

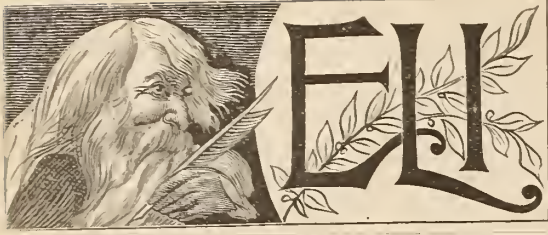
It was brought from Illinois a year or two ago, and is now about twelve feet high, with a bushy top and many lateral branches. On Sunday one of the family noticed a puff of smoke proceeded from one of the limbs, and, by watching it closely, puffs identical in appearance to cigarette smoke were seen starting every now and then from all over the tree, sometimes from the leaves, sometimes from the bloom, sometimes from the bark of the limbs or trunk of the tree. The puffs are at irregular intervals; sometimes two or three at once from various parts of the tree, and sometimes they are several seconds or a half-minute apart. They just seem to come at haphazard from any part of the tree, and as they ascend in the air look exactly like the smoke from a cigarette.

Among the white people it is looked upon as a curiosity, and many, of course, make explanations of the phenomenon, which, perhaps, are plausible enough to their authors, but which carry very little conviction to the minds of others.

But the negroes don't like the thing at all. One negro woman, after intently watching the puffs a few minutes, started off on a run, saying: "I wouldn't lib dar fur nothin'; people better go to doin' better 'bout dis town." A negro man said: "I'm gwine stay away from dat thing, I can smell de brimstone clear down to the libery stable."

First Walking Delegate: "What'll we do, Jake? Everybody's contented an' I can't get no one t' strike for love or money."

Second Walking Delegate: "I've got it. Casey over in th' stone yard's hoistin' rock by horse power. Let's go over an' agitate th' horse."—Judge.



LET me say that I am disappointed that the ELI page does not contain this month the faces of a number of well-known and popular representatives of the trade. I have in the engraver's hands photos of several of the men whose acquaintance, I know, you will be delighted to make, but some one is at fault for not getting them pushed through for this issue. You shall see them next month, wind and weather permitting.

* * * *

"Our lumbermen," said J. R. Lawton, of Toledo, Ohio, "are going into the Canadian woods in large numbers and cutting large quantities of logs this winter. There are hundreds of miles of virgin forest in Canada that has never been touched by the ravishing hand of the woodsman, and figures go to show that on the limits that are left there is more timber than has been cut." Mr. Lawton operates a mill on Blind River, Algoma, and cuts there, marketing the output nearly altogether in the States.

* * * *

"My business," said W. S. Greensides, of Mount Forest, Ont., "is largely with the States and is steadily on the increase. I deal altogether in hardwood, cherry and white ash, and ship principally to Philadelphia. The Americans like our hardwoods, and I do not find that the woods of their own country come into competition with stocks from this side of the border. In quality of grade we take the cake. I would of course like to see the duty on lumber removed altogether." Mr. Greensides informed me that he was building a new band saw mill, which would be in operation shortly.

* * * *

Why should not music and timber work well together? The relationship is not very distant if the spelling is changed to "timbre." Is there not music in the buzz of the saw and the whirl of the sawmill machinery, not to mention the melodious tones that come from the sharpening of a saw? You are not so sure about that; perhaps these are matters of opinion or taste. I met an old friend the other day who succeeds in combining music and timber very nicely. Who has not heard of, if they have not heard, those "sweet singers of Israel," to employ a term fittingly applied to them by their friends, the Whyte Bros., comprising D. A. and John White? These two have for years been prominent figures in evangelistic work in all parts of the country. For nearly two months they have been associated with Rev. J. E. Starr in Elm street church in this city. This work cannot be carried on so successfully in the summer months, and during this period Mr. D. A. White engages in lumbering operations and has done so for years. Last summer, he tells me, he placed a considerable quantity of cherry and oak, and anticipates a good business the coming season. He handles hardwood, chiefly, and favours free trade in lumber.

* * * *

Politicians across the border are so given to working election fakes, that when an event, as important as a Presidential election, is approaching, one gauges with suspicion almost any political step that may be taken by adherents of one party or the other. I find this is the way leading lumbermen in this country view the proposition of Mr. Bryan, of Nebraska, for free lumber. Canadian lumbermen have no antipathy to the measure. I do not know but that they would welcome it, but, as Hon. E. H. Bronson, the large Ottawa lumberman said: "I consider the bill a mere political dodge, it being but a repetition of similar bills presented to excite attention previous to an election." Mr. P. Whelan, agent of the Shepherd & Morse Lumber Co., of Ottawa, said he considered if the bill should be passed it would greatly benefit the lumber trade of Canada and would largely increase the shipment of lumber to the United States but weaken the shipment to Great Britain. Mr.

Meaney, representing Robert Thompson & Co., in this city, favored the proposal, but said he, with a good natured laugh, "I have no idea that it will become law. The Yanks just now are looking about for a new President." Of course Uncle Sam can show that he is not faking all the time by actually passing Mr. Bryan's bill.

* * * *

"Lumber is becoming very scarce in Michigan," said E. J. Lynn, of Detroit, with whom I had the pleasure of an interview during the month. "In two years there will be comparatively little lumber in the State. Our people are looking around for new fields and pastures green; some are taking to the woods of Oregon, Washington, Minnesota and Wisconsin, and others are looking to Canada. I am on my way to the northern section of the province, where I am interested in the work that is being done by a staff of loggers in the Magneta-wan district. We will probably cut some of our logs in Canada and others will be towed to Michigan. The trade question is a broad one and it depends a good deal on the color of one's political glasses how it is viewed. I don't take any stock in the cry of the Northwestern Lumberman of "American markets for American lumber." Our people have nothing to fear from Canadian lumber. My operations at home are in the vicinity of Sable River." I notice that since Mr. Lynn returned home he has been narrating some of his experiences in this country to a Detroit reporter. He said: "There is a general impression that there is a vast amount of pine timber in Canada, but such is not the case. The country north, east and west of Georgian Bay is generally rocky and sterile. It doubtless contains great mineral wealth, but the lack of good timber is something that surprised me. Fires have been set by explorers to clear the rocks so they could better find the mineral veins, and these fires have ranged over an immense portion of the territory, destroying the green timber that grew in the valleys. One may ride for hours on the Canadian Pacific and not see a single valuable tree." Mr. Lynn is one of the giants of the forest, a big, brawny man standing over six feet in height, and built otherwise in proportion. I should say he is fifty years of age, genial in manner, and ageeable and approachable as lumbermen usually are.

* * * *

A name, not unfamiliar to readers of the LUMBERMAN, is that of J. T. Schell, of Alexandria, Ont., though of late he has not been heard from as frequently as we should like. He always has something to say worth saying, and I shall be glad to know, that having taken up his pen once more, it will be kept in fairly good use in the interest of the lumber opinion of the Dominion. His present letter is suggested by a circular sent from the office of the LUMBERMAN making enquiries on a number of lumber matters. Mr. Schell writes: "In basswood, ash and birch lumber, we find since the McKinley Bill went into force that the American buyers who formerly came to the yards and culled and shipped, now want delivered prices, and that we take all risk of change of regulations by either Government and the bother and expense of passing customs, etc., and then we are entirely at the buyers' mercy as to what claims may be set up for shortage, grading, etc. We find life too short to be inviting these troubles and have largely dropped the trade. At our spruce mills in Quebec we have several millions of deal sidings that owing to the British market are unprofitable to ship there except at a loss; and owing to the American duty of \$2 per 1,000 on rough lumber leaves no margin of profit when shipped to United States points. From our location we could deliver in Boston or New England points dressed lumber at less figures than we can deliver the rough lumber, as the extra lumber we could put into a car would more than offset the cost of dressing. To the spruce handlers of Quebec and parts of New Brunswick the American duties act as a preventative from doing a large and profitable business in rough and dressed spruce lumber not suited to the requirements of the English trade. Entire reciprocity with the United States in lumber, rough, dressed and otherwise, manufactured into piece stock, box shooks, etc., would give employment to thousands of laborers, employ large capital and leave a profit to Canadian enterprise which is not possible under ex-

isting relations. In the eastern parts of Canada the box shook trade has been practically wiped out by the McKinley Bill. To-day the writer received an order for 3,000,000 feet annually of soft elm and ash, short piece stock which could be very profitably handled with free trade in lumber with the United States, but is shut out by the McKinley tariff. Our lumber found a market in the United States and England, but owing to McKinley and the dullness of the English markets we this year stock only one of three hardwood mills and close the spruce mill except for local trade. We expect to make 10,000,000 shingles for the Boston market in 1892 and expect to pay into the treasury of the United States out of the labour and profit of good Canadian citizens no less than \$3,500 in support of American Government at our expense, and we feel unjustly, because in support of the protective policy of our Government we have to pay the above amount out of our natural income that other branches of trade may have the right by law to charge us and others high duty prices.

* * * *

Here is one of Ben Franklin's chunks of wisdom, known, I suppose, to everyone: "When the well is dry we know the worth of water." Some of the hardwood lumbermen of this province are realizing the force of this wise saying at the present time. "Three years ago," said Mr. Gibson Collinson, of Aberdeen, Ont., with whom I had an interesting chat the other day. "we organized a 'Hardwood Lumberman's Association' for Ontario, but that was the first and only meeting of the association. To-day I attended a meeting of creditors of a wood-worker in your city, where, together with about a dozen other lumbermen throughout the country, we are let in for nearly \$4,000. We'll perhaps get fifty cents on the dollar for our claims. If the Hardwoodmen's Association had been a going concern we might have protected ourselves against this and other losses. We think we realize its worth now, when it is too late to save ourselves, like deciding to lock the stable door after the horse is stolen. The case in point is like this; and it may not be amiss for lumbermen to take note of the situation. A certain worker in wood in your city called his creditors together. His liabilities are about \$5,500; \$1,800 of this amount is owing in the city in sums varying from \$8 to, say, \$200; \$3,600 is due lumbermen in various parts of the province in accounts of \$150 to probably \$300 each. He attributes his difficulties to losses made on lumber. What are the facts? He bought the lumber, represented by the \$3,600, within the past ninety days. My bill is not due until March. He admits that he sold all the lumber; it was not for use in his manufacturing business; it does not appear in his schedule of assets. He says he sold it at a loss. Grant that he did make a discount, the fact still remains that the major portion came back to him in cash. Who got this cash? There is none to pay for the lumber when the bills come due. I am not going to follow up my queries any closer, but what I have said is mighty suggestive of an African around about somewhere. This is not the first case where the outside lumbermen have got left in a similar fashion. And I blame no one but ourselves. I was the only creditor present beyond the limits of your city, though outside men were interested to double the amount of city creditors. As I have hinted a proposition of compromise at fifty cents on the dollar was proposed. No one was there to oppose it except myself with a claim of less than \$200. I suppose the estate will be fixed up in this way, and the innocent country lumberman will accept the half for his lumber, and be ready to-morrow to put his foot into the same hole with some one else. A little more cohesion and fraternity among ourselves and determination to fight this kind of business, and we would not so often be made the victims of fifty cent compositions."

* * * *

Mr. James Scott, manager of the Georgian Bay Consolidated Lumber Company, referring to a statement made in a daily paper and commented on in last month's LUMBERMAN, that the millmen at Midland, Penetang, and Waubaushene found it more profitable to ship their logs to the States, rather than manufacture them into lumber here, says that so far as his company is concerned there is not a word of truth in the statement.

TRADE REVIEW.

Office of CANADA LUMBERMAN, }
Jan. 30, 1891. }

THE MONTH'S MARKETS.

OUR usual resume of trade conditions for the month is boiled down to a few lines to make space for the extended annual review of the lumber trade of the Dominion for the past year, which is published on pages 6 and 7 of this issue of the LUMBERMAN. Market quotations from the principal lumber circles of Canada and the United States follow.

TORONTO, ONT.

TORONTO, Jan. 30, 1891.

CAR OR CARGO LOTS.

Table listing lumber prices in Toronto, Ontario, including items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table listing yard quotations for various lumber types such as Mill cull boards and scantling, Shipping cull boards, etc.

MONTREAL, QUE.

MONTREAL, Jan. 30, 1891.

Table listing Montreal market prices for lumber, including Pine, 1st qual., per M, Spruce, etc.

ST. JOHN, N.B.

ST. JOHN, Jan. 30, 1891.

Table listing St. John market prices for lumber, including Spruce deals, Pine, Deal ends, etc.

SHINGLES.

Table listing shingle prices for Spruce, Pine, and other types.

FLOORING, DRESSED.

Table listing flooring prices for 6 in. No. 1, 4 in. No. 1, etc.

OTTAWA, ONT.

OTTAWA, Jan. 30, 1891.

Table listing Ottawa market prices for lumber, including Pine, 1st qual., Pine 2nd, etc.

QUEBEC, QUE.

QUEBEC, Jan. 30, 1892.

Table listing Quebec market prices for lumber, including White Pine in the raft, Staves, etc.

Table listing lumber prices in OAK-MICHIGAN AND OHIO, including By the dram, according to average and quality, etc.

BOSTON, MASS.

WESTERN PINE-BY CAR LOAD.

Table listing Boston market prices for Western Pine by car load, including Uppers, 1 in., 1 1/2 and 2 in., etc.

EASTERN PINE-CARGO OR CAR LOAD.

Table listing Boston market prices for Eastern Pine by cargo or car load, including Nos. 1 and 2, 3, etc.

SPRUCE-BY CARGO.

Table listing Boston market prices for Spruce by cargo, including Scantling and plank, random cargoes, etc.

LATH.

Table listing Boston market prices for lath, including Spruce by cargo, etc.

OSWEGO, N.Y.

WHITE PINE.

Table listing Oswego market prices for White Pine, including Three uppers, 1 1/4, 1 1/2 and 2 in., etc.

SHINGLES.

Table listing Oswego market prices for shingles, including 12 and 16 feet, mill run, etc.

IX12 INCH.

Table listing Oswego market prices for IX12 inch lumber, including 12 and 16 feet, mill run, etc.

IX10 INCH.

Table listing Oswego market prices for IX10 inch lumber, including 12 and 13 feet, mill run, etc.

SHINGLES.

Table listing Oswego market prices for shingles, including XXX, 18 in. pine, etc.

LATH.

Table listing Oswego market prices for lath, including No. 1, 1 1/4, etc.

BUFFALO AND TONAWANDA, N.Y.

WHITE PINE.

Table listing Buffalo and Tonawanda market prices for White Pine, including Uppers, 1, 1 1/4, 1 1/2 and 2 in., etc.

Table listing lumber prices in ALBANY, N.Y., including 18 in. XXX, clear, 18 in. XX, 6 in. clear, etc.

ALBANY, N.Y.

Table listing Albany market prices for White Pine, including 1 to 2 in., good, 1 to 2 in., 4ths, etc.

THIRTEEN FOOT STOCK BOARDS AND PLANK.

Table listing Albany market prices for thirteen foot stock boards and plank, including 1x10 in. up dressing, etc.

SHINGLES AND LATH.

Table listing Albany market prices for shingles and lath, including Shingles, shaved pine, etc.

SAGINAW, MICH.

FINISHING LUMBER-ROUGH.

Table listing Saginaw market prices for finishing lumber, including Uppers, 1, 1 1/4 and 1 1/2, etc.

SIDING.

Table listing Saginaw market prices for siding, including Clear, 1/2 in., 3/4 in., etc.

TIMBER, JOIST AND SCANTLING.

Table listing Saginaw market prices for timber, joist and scantling, including 2x4 to 10x10, etc.

For each additional 2 ft. add 1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.

SHINGLES.

Table listing Saginaw market prices for shingles, including XXX 18 in. Climax, etc.

LATH.

Table listing Saginaw market prices for lath, including Lath, No 1, white pine, etc.

NEW YORK CITY.

WHITE PINE-WESTERN GRADES.

Table listing New York City market prices for White Pine, including Uppers, 1 in., 1 1/4, 1 1/2 and 2 in., etc.

An epidemic, thought to be smallpox, has appeared in a lumber camp near Manitou Falls, about twelve miles from W. Superior, on Black River, Wis. It first appeared in the family of Jno. Dowlings, and after six days' illness, his wife died, and all the other members of his family are prostrated.

An English syndicate has recently purchased a large tract of land in Florida. The property is what is known as the Hiles-Hadfield tract, about which there was considerable litigation some time ago. The region will be traversed by the Carabelle, Tallahassee and Georgian Railroad, now building, and of which Wm. Clark, managing partner of the Clark thread mills, at Paisley, Scotland, is a director and large stockholder.

Mr. A. E. Lawrie forwards to the Indian Forester an authentic case of a forest fire caused by lightning, which occurred in the Alapelli forests of the Chanda district. Central Provinces. During a heavy thunderstorm a huge teak tree was struck in the Mirkalu reserve, which, it is hardly necessary to say, is protected from fire. The lightning current first struck an upright branch, and then ran down the stem, setting it on fire. The tree was shivered to pieces, large fragments being scattered over long distances. The storm being accompanied with but little rain, the grass and dry leaves round the burning tree were set ablaze. As this unfortunately occurred in the middle of the night, more than 80 acres were burnt before Mr. Lawrie's establishment could reach the spot and extinguish the fire. It is not often that one hears of a forest fire caused by lightning.

VIEWS AND INTERVIEWS.

A Memorable
Elm.

Mention is made in a book Quebec, Ancient and Modern," written by E. T. D. Chambers, of the tradition that it was under an elm tree, in what was afterwards the English cathedral enclosure, that Jacques Cartier assembled his followers. The tree was blown down in September, 1845; and in connection with that event there is, says the Montreal Gazette, a story to the effect that the tree, having become rotten with age, the churchwardens had come to the decision that the ancient landmark would have to be removed, and orders were given to have it cut down next day. During the night a gale arose, and the tree was blown down, but, in falling, as if to mark the place where it stood, it struck the iron railing, making a dinge that is pointed out to this day.

English
Lumber Opinion.

Mr. Burall, an English lumberman, who visited this country recently, took back with him some specimens of British Columbia timber that are likely to convince our English friends that the giants of the forest do grow in this country. Mr. Burall tells them that he saw timber being cut in the saw mills at Vancouver 6 feet square and 118 feet in length. The London Timber Trades Journal, in commenting on Mr. Burall's visit, tells also of a cargo of Oregon pine, recently received at the docks of the Metropolis, which is greatly admired for its immense strength, durability and extraordinary dimensions. And as a curiosity to our old country friends mention is made of a few pieces of waney board pine 24 in. up to 28 in. square, and 37 feet to 43 feet in length.

Wooden
Shoes.

It has been said there is nothing like leather. Rather, there is nothing like wood. The man of sheepskins has not even an entire monopoly of hides for foot-wear. We are told that in the Western States—away west—that wooden shoes are still worn by a large number of people. Some had become accustomed to them in the land of their birth, and in their new home have not yet adopted the more modern specie of shoe. They are used by others who are employed in damp, sloppy places. Workers in tanneries, dyeing establishments and chemical works find them a better protection and more comfortable than shoes made of leather or India rubber. They are also worn by women when doing their scrubbing, and also on wash-days. The largest manufactory of wooden shoes in the United States is located at Grand Rapids, Mich., and there are two similar establishments in the same city. The products of these factories are shipped to nearly every State in the Union, and to various points along the Pacific coast. The shoes are made from basswood logs.

Who Pays
the Duty?

All lumbermen of the United States are not ready to endorse Mr. Huyett's platform of exclusiveness for American lumbermen. W. H. Boyle, a sash, blind and door manufacturer, of Oswego, N.Y., would remove all trade barriers between the two countries. In a letter recently published he expresses himself plainly on this point, and also discusses the oft discussed question: "Who pays the duty?" "I believe," says he, "that as a rule the exporter pays the duty. A letter on my desk from a manufacturer in Belgium refers us to our own American glass list, and offers to pay freight and duties and allow their glass f.o.b. Oswego at the very best discount quoted us by our own American factories. It would be difficult for the free trader to prove that the tariff was a tax to the consumer in that case. As another proof, when solicited for a contribution to an expenditure incurred in efforts to defeat some clause of the McKinley Bill previous to its passage, we made an offer to the solicitor, a local lumber dealer, through whom we had purchased uniform grades of Canada stock for several years, that we would contract for 300,000, 500,000 or 1,000,000 feet of exactly the same grades for the coming year, and that any reduction of price, as compared to the past two or three years, we would contribute to the fund in question. The offer is open yet, but so far the Canada man keeps the dollar that McKinley struck off. Directly across the lake are two extensive sash, door and blind factories; that little barrier or tariff keeps their

manufactured product out of our market. I am sure if they should force their goods our way, they, and not the consumer, would pay the duty, as I am equally sure, had the McKinley Bill increased that tariff, we could not have added a penny to the price of our goods, which is regulated by keen, cutting competition between ourselves. Still, in the language of Bobbie Burns, "for a' that and a' that," as the white pine supply in our own country is limited and so many industries are dependent upon it, I would remove the barrier and let logs and lumber come in free, or any other commodity that our American farmer cannot produce on our own soil."

Canada's
Canals.

A notable visitor to the city during the month of January was the veteran seaman, Capt. Alexander MacDougall, of Duluth, inventor of the whaleback, and actively identified with the big ship-building concern, the American Steel Barge Company. Mr. MacDougall talked freely to a reporter of our canal system which is an important factor in whaleback schemes. "The completion of your canal system," said the Captain, "is what your navigation interests most need at present. There now remains only the Beauharnois canals to be finished, and the Dominion will have a complete chain of waterways to the sea. You will see a revolution in the shipping trade then. The canals at Montreal won't be able to accommodate the vessels waiting to go through. Over this route in summer time most of the trade from the west and northwest will be carried. Instead of going by rail to Boston and New York it will be shipped from Milwaukee and Chicago to Montreal. There the lake vessel will transfer its freight to the ocean steamer to be carried across the Atlantic. The tonnage of vessels in Canada will increase from the 1,000,000 it is now to 40,000,000 or 50,000,000. The Dominion needs this increase badly. My friend Mr. Marks, of Port Arthur, who ought to know, tells me that only one freight vessel is under construction at present in the whole of Canada. I should say complete and enlarge your canal system at all costs. Speaking of his own vessel, Capt. MacDougall says: "Three years ago we launched the first whaleback. Today there are 25 in actual commission. Twenty are on the inland lakes, four on the Atlantic and one on the Pacific. I have returned recently from both the Pacific and Atlantic coasts. One whaleback has left Boston for Yucatan, and to-day I got a telegram telling me of the departure of the Pacific coaster from Seattle with a cargo of coal for Santiago. A shipyard is now in course of completion on the Puget Sound for the construction of whalebacks. We have more than we can do at our yards in West Superior. Eight vessels are on the stocks now six of these being steamers, not one with a length of less than 322 feet. We intend building two more especially for the St. Lawrence canal trade."

TRADE RELATIONS BETWEEN UNITED STATES AND CANADA.

BY JOHN BERTRAM, TORONTO, ONT.

IT is not in a spirit of controversy that I again revert to the question of "American Markets for American Lumber," but rather to further elaborate the general aspect of trade relations between the United States and Canada. Before doing so, however, it would be well to notice one or two points made by Mr. Huyett in his second article. It was hardly possible to read his original contribution without considering it as a protest against American markets for lumber being thrown open to Canadians by reason of the \$1 a thousand reduction on duty made by the McKinley Bill. This idea Mr. Huyett in his rejoinder disclaims, and says: "I did not arraign the McKinley law, nor attribute the demoralization thereto." That being the case it was unfortunate for the apprehension of his true meaning that such expressions should have been found in his letter as "The \$2 duty made conditions so unprofitable as to make Canadian operators very tired;" "When the McKinley Bill was before Congress, negotiations prompted by Canadians resulted in a 50 per cent. reduction of the duty—benefiting a few American log operators and surrendering American markets to Canadians without an equivalent." Then the difference in tables of imports as between 1890 and 1891 could presumably be given only as showing how the market had been surrendered, the table winding up with the significant statement,

"The increase in importations as above shown is \$9,768,160," although these figures were afterwards withdrawn by Mr. Huyett as incorrect.

To an ordinary reader these quotations show that the whole question hinged on the reduction made by the McKinley Bill, and that the bill of complaint was founded thereon.

It seems to be taken for granted by American writers that the selling of forest product is all done by Canada, and the buying by the United States. This is not altogether correct. The trade and navigation returns have not yet been issued here for 1891, so, taking 1890 as the latest available, they show, after a careful analysis, that the total amount of forest products "wood and manufactures of," exported by Canada to the United States, exclusive of logs in the rough, was \$9,958,685, and the total imports by Canada from the United States were under the same heading for the same year \$2,290,628, or a difference of \$7,668,057. This is certainly not a very large amount, and a curious opinion must be held of the vast volume of lumber trade in the United States, if much is made of it. The whole amount of imports over exports is hardly one-fifth of the amount of lumber trade done by Chicago alone.

I endeavoured in a former communication to show that in international trade discussions a single trade or one class of production could not very well be considered alone; that as one trade reacts on another a wider view becomes necessary. If it is true, as claimed by Mr. George A. Priest, that "the great army of wage earners in the lumber industry are the people most interested in this subject," and if the object of the United States people, as Mr. Huyett says, is "furnishing employment directly and indirectly to a large number of persons," then the benefit of all wage earners must be considered, and it can surely make no difference in the aggregate whether the employee is working in a sawmill or in manufacturing saws.

Now let us consider the question of trade between the two countries by examining the official figures, not of one year, which might be misleading, but for the past eighteen years, from 1873 to 1890 inclusive. The total imports of Canada from the United States for these years, on the basis of goods entered for consumption, were \$851,871,068; and the total exports by Canada to the United States for the same term of years were \$657,623,012, or a balance of trade in favour of the United States of \$194,248,058, and this in face of the fact that the total imports of Canada exceeded the total exports for the same years by the sum of \$398,342,740. These figures should give food for reflection, not only to those who take an interest in trade statistics, but also to those who evince an anxiety to provide employment for wage earners. That the United States authorities are anxious to extend their foreign trade, is proved by their making and asking mutual concessions in recently arranged reciprocity treaties.

There is a market in Canada at the very doors of the American people, which, perhaps because of its nearness and familiarity, is treated as of little consequence, and which is capable of great expansion. No nation can sell without also buying, and it makes no ultimate difference whether trade is carried on directly or in a roundabout fashion. For example, the United States may send wheat to England, and with the proceeds buy coffee from Brazil; but the Englishman pays for his wheat all the same by selling some commodity to Brazil or some other country.

The long line of frontier between the two countries of North America is peculiarly adapted for a profitable interchange of trade. Why should not Nova Scotia sell coal to the New England States, and Pennsylvania return the compliment by supplying Ontario? This trade goes on in spite of the barriers erected on both sides of the line. Will some of the handlers of "cold facts" point out why a free interchange of coal would not benefit both parties? The whole subject should not be considered in a narrow partisan spirit, but in one of modern enlightenment. The great bulk of the people are interested in the well-being and good neighbourhood of the dwellers on this broad continent, the only objectors being a small but noisy clique of tail-twisters on one side and their congeners on the other.

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IN PROSPEROUS TOWN ON GEORGIAN Bay, eighty h.p. engine, modern improvements, capacity 25000 per day, rail and water conveniences, siding to lumber piles. Easy terms. Whole or half interest. Plenty of stock can be bought. Write for particulars. Lock Box 7, Hepworth station, Ont.

WANTED TO CONTRACT

FOR 1 1/2 AND 1 1/2 IN. BASSWOOD, ALL 12 FT. long, quality 1sts and 2nds, New York inspection, to be delivered here in canal boats next summer.

Only responsible parties need apply, stating price delivered.

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SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways. 20 pair wheels and axles, all in good second-hand condition, very cheap.

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BERTH NO. 82, CONTAINING 36 SQUARE miles, situated on the north shore of Lake Huron, within about ten miles of Georgian Bay; well watered, and containing large quantity of pine timber. Has never been lumbered on. Apply to THE GEORGIAN BAY CONSOLIDATED LUMBER CO., Toronto.

FOR SALE—25 H.-P. STEAM SAWMILL, WITH power cider press and hoop-sawing outfit, with or without stock of lumber. Will be sold cheap. Address LOUIS LUBACH, lot 2, con. 4, Fullerton, Carlingford P.O., Perth Co., Ont.

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GOOD CANADIAN TIMBER LIMITS AND Georgian Bay saw logs. Address, BEN BIRD-SALL, Whitney Building, Detroit, Mich.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

PARTNER WANTED

TO JOIN ADVERTISER IN MANUFACTURING mill machinery and patented specialties. Must have \$3,000 to \$5,000 cash. Experience not necessary if capable of keeping books and attending to office work. Address "D" care CANADA LUMBERMAN.

SAW LOG SLEIGHS FOR SALE

VERY CHEAP, FIFTY SETS ONE TEAM SAW log sleighs, new Ottawa pattern, steel shod, made of the best material throughout, good as new. MOS-SOM BOYD & CO., Bobcaygeon, Ont.

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SECOND HAND MACHINERY FOR SALE by the Canada Machinery and Supply Co., Brantford, Ont., Dealers in New and Second Hand Machinery and Mill Supplies:—

- 1 12 X 16 WATEROUS DOUBLE CUT-OFF ENGINE with Pickering governors.
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- 1 POWER CORN SHELLER.
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WRITE FOR PRICES FOR ANYTHING IN the line of Machinery and supplies to the Canada Machinery and Supply Co., Brantford, Ont. Works, Warerooms and Office, opposite the Market.

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WORTHINGTON COMPOUND STEAM pump; steam cylinders 12 and 18 in. diameter, water 10 1/4, stroke 10 in.; capacity 5 to 900 gallons per minute, 2 1-2 steam, 3 1-2 exhaust, 8 in. suction, 7 in. discharge, capacity 4 to 6 good fire streams; has reversible counter, first-class condition in every respect; suitable for fire and domestic supply for any sized town up to 10,000 inhabitants.

ENGINE—Cylinder 22 x 30, shaft 8 feet long, 7 1-2 in. diameter, fly wheel pulley. Corliss pattern and slides, thorough order new Pickering governor, a 10 x 16 square bed circular valve engine also square bed slide valve 10 x 12.

BOILERS—One 52 x 14, with 44 3 1-2 inch tubes; one 52 x 13 feet 8, with 66 3 in. tubes; one 52 x 13 feet 6 with 52 3 in. tubes. These boilers have been thoroughly repaired.

SAW IRONS—Waterous make, right hand cast frame, takes 60 in. saw, 3 block carriage, peel dogs, 1 set Paxton's make, cast frame, right hand, 7 block carriage with wooden frame, axles running clear across, V and flat track.

ONE SEWRV shingle machine, 40 in. saw, thorough order.

WATEROUS PORTABLE SAW MILL can be seen at Acton station—25 h.p. engine, 30 h.p. locomotive boiler, water front, circular fire box; iron frame, friction feed and gig, 1 60 in. and 2 52 in. solid saws, 7 block carriage, 30 feet from centre to centre of first and last block, friction set, peel dogs, friction log turner, slab saw, single edger, saw dust carrier, counter shaft.

This mill is in first rate order and can be delivered immediately. Further particulars and prices of above machinery on application.

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SAWDUST.

THE sawmill with its teeth of steel
 Bites through the log upon the tram
 And drops the dust like golden meal
 Into the stream below the dam.

It floats in long procession down
 Puts golden fringe on the waters edge,
 Or rests in nooklets green and brown,
 And shines like sparks among the sedge.

Now swims a particle away
 And minnows push it here and there
 As boys at football love to play
 On Summer days in Summer air.

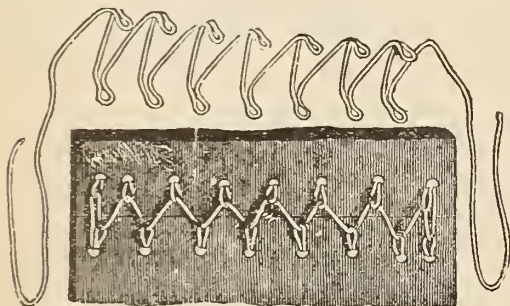
The water shouts in cheering tones
 As float the shining masses down
 Around the curves—among the stones
 And past the busy trade-blind town.

And still the saw with teeth of steel
 Bites through the logs upon the tram
 And drops its food like golden meal
 Into the stream below the dam.

JEROME W. TURNER.

BELT FASTENER OF WIRE.

THE fastening is made of wire, which for about half its length is bent into a series of zigzags, the angles of which are bent upward at right angles, forming loops, the number of which on each side are equal to the number of holes in each end of the belt. The holes are made at such a distance from the ends of the belt that when they



are brought together the holes will be at the same distance apart as the rows of loops in the wire. In using the fastening, the ends of the belt are brought together, and the ends of the wire are passed through the holes in such a direction as to bring the zigzags on the inner side of the belt. The ends of the wire are then passed through the loops successively, forming a second series of zigzags upon the outside of the belt, and are twisted together, as shown in the engraving. In use, the fastening beds itself in the belt so as to leave the surface smooth. The fastener is easily applied and reliable in use.

ARGENTINE PROSPERITY.

ADVICES received from the Argentine by the last steamer show that the value of agricultural and pastoral products in that country during the present year will exceed anything before known. The value of the agricultural crop in 1891 is estimated at \$85,000,000. The wheat product is estimated at 8,000,000 tons, valued at \$32,000,000; the corn crop at 1,000,000 tons, valued at \$15,000,000. The value of the wheat and corn surplus for export is estimated at \$27,500,000. It is believed that this enormous crop, together with the returns from wool, hides, etc., will restore prosperity to this country.

INTERESTING FACTS ABOUT WOODS.

MANY of us work on from year to year, handling thousands of feet of lumber of different kinds, without once giving a thought as to its relative strength as compared with other substances, or to where it comes from or to whither it goes. One cubic foot of ash weighs 52.81 pounds; bay wood 51.37; blue gum 64.8; cork 15; cedar 35; hickory 49; lignum vite 83.32; mahogany from 35 to 65; white oak (dry) 53.75; pine, white, 34.625; pine yellow, 33.85; spruce 31.25; walnut, black, dry, 31.25; willow 36.56.

The comparative weights of green and seasoned timber are about as follows; Pine, green, 44.75 pounds, dry, 34.62 pounds; ash, green 58.18 pounds, dry 52.81 pounds; beech, green, 60 pounds, dry, 53.37 pounds; cedar, green, 39 pounds, dry, 35 pounds. Thus it will be seen that the large majority of the lumber we handle is much heavier than we notice during our daily acquaintance with it.

Now as to tensile strength of the above named woods. The tensile strength of ash is 15,000 pounds which about equals cast lead, which is 18,000 pounds; hickory, 11,000 pounds, or same as tin, which is 11,000 pounds; mahogany, 21,000, or same as gold, which is 20,380 pounds; white oak, 16,500 pounds, or same as Clyde cast iron, which is 16,000 pounds; pine, 19,200 pounds, or same as gun metal, which is 18,000 pounds; walnut, black, 16,000 pounds, or same as walnut, English, which is 17,800 pounds; willow, 13,000 pounds, or same as sheet zinc, which is 16,000 pounds; cedar, Lebanon, 11,400 pounds, or same as beech, which is 11,500 pounds; ebony, 27,000 pounds, which is about the same strength as copper.

White oak at 16,500 pounds is tougher than many grades of cast iron, not only in tensile strength but in almost any other test to which it may be put.

It is known that wood as a combustible is divided into two classes—the hard, as oak, ash, elm, beech maple and hickory—and the soft, as pine, cotton, birch, sycamore and chestnut. Green wood subjected to a temperature ranging from 340 to 440 degrees, will lose from 30 to 45 per cent. of its weight. At a temperature of 300 degrees, oak, ash, elm, and walnut, in a comparatively seasoned state, lose from 16 to 18 per cent. Wood contains an average of 56 per cent of combustible matter. From an analysis by M. Violette, it appears that the composition of wood is about the same throughout the tree and that of the bark also, that wood and bark have about the same proportion of carbon (49 per cent.) but that bark has more ash than wood.

PUBLICATIONS.

Sir Edwin Arnold, who has been enjoying an interesting trip through the United States, has made a careful study of the conditions which govern the family in Japan and embodies his ideas in a paper called "Love and Marriage in Japan" in the February number of The Cosmopolitan. The article is illustrated by the quaintest possible Japanese sketches running down the sides and across the bottom of each page. An excellent photograph of W. D. Howells serves as a frontispiece, and his work as a writer of fiction is reviewed in the same number by H. H. Boyesen.

FOR HEMLOCK, DIMENSION LUMBER, HARDWOOD flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.



When the tubes of injectors become scaled, do not undertake to clean them with a file or scraper, as a very small enlargement of the area of the jet will interfere with the working of the instrument, but remove the tubes and place them in a solution of one part of muriatic acid to 10 or 12 parts of water. This will soften the scale, and the tube may then be washed.

The fact that steam piping methods have not kept pace with the demands of higher pressures and modern practice is evidenced by the increasing number of accidents from the failure of pipes and fittings. There has not been for the rapid increase of pressure used a proportionate increase in strength of flanges, number and size of bolts used, and more generous provision for expansion and contraction. When small bolts are used in flanges they are often put under an almost destructive initial tension by "the man with the monkey-wrench," and are in no condition to withstand the excessively high pressures to which piping is now subjected. Valves and fittings also require greater attention in their design, construction and manipulation.

The ability of a lubricator to feed heavy oil depends on the difference between the height of the water column and the connection from the lubricator into the steam pipe. A friend has one in which the water column extends for more than two feet above the body of the cup, but as the delivery is connected into the steam pipe nearly as high up as the top of the water column, the cup does not work in a satisfactory manner. The delivery connection should be lowered, and it is well to remember that if the pipe which is intended to supply the column with water is carried in a horizontal direction, while it may add to the capacity of the cup, or in other words enable it to feed out more oil in an hour, still it does not help it about feeding heavy oil, as the vertical height alone can do this.

To lag pulleys with paper a workman writes:— Scratch the face of the pulley with a rough file thoroughly, so that there are no bright or smooth places. Then swab the surface with a solution of nitric acid one part, water four parts, for fifteen minutes; then wash with boiling hot water. Having prepared a pot of the best tough glue that you can get, stir into the glue a half ounce of a strong solution of tannic acid, oak bark, or gall nuts, as convenient to obtain, to a quart of thick glue; stir quickly while hot and apply to the paper or pulley as convenient, and draw the paper as tightly as possible to the pulley, overlapping as many folds as may be required. By a little management and moistening of the paper it will bind very hard on the pulley when dry, and will not come off or get loose until it is worn out. Use strong hardware wrapping paper.

"What do you do with all the files?" This is the question which the "old man" usually asks when he receives an invitation to hand out a new file. More files are spoilt by laying them down where last used than by any other method. A new file is used once and then perhaps thrown down in the dirt, grease or water, and the dirt, dust and grease thus gathered convert a new file into an old one upon the spot. Keep a file clean at all times and begin when it is new. Before using a new file rub chalk into the teeth, then clean with a brush or wire card; rub in another dose of chalk and the tool is ready for use. The chalk slightly fills the cavities between the teeth and prevents metal filings and dust from collecting therein. Such filling renders the file more easily cleaned and to a certain extent neutralizes any acid that may find its way on to the file.

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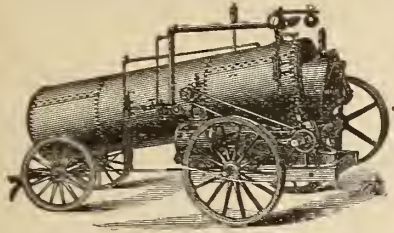
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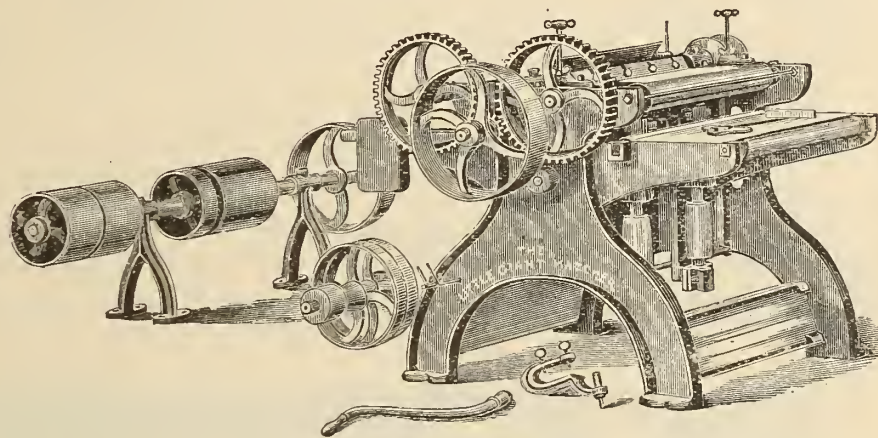
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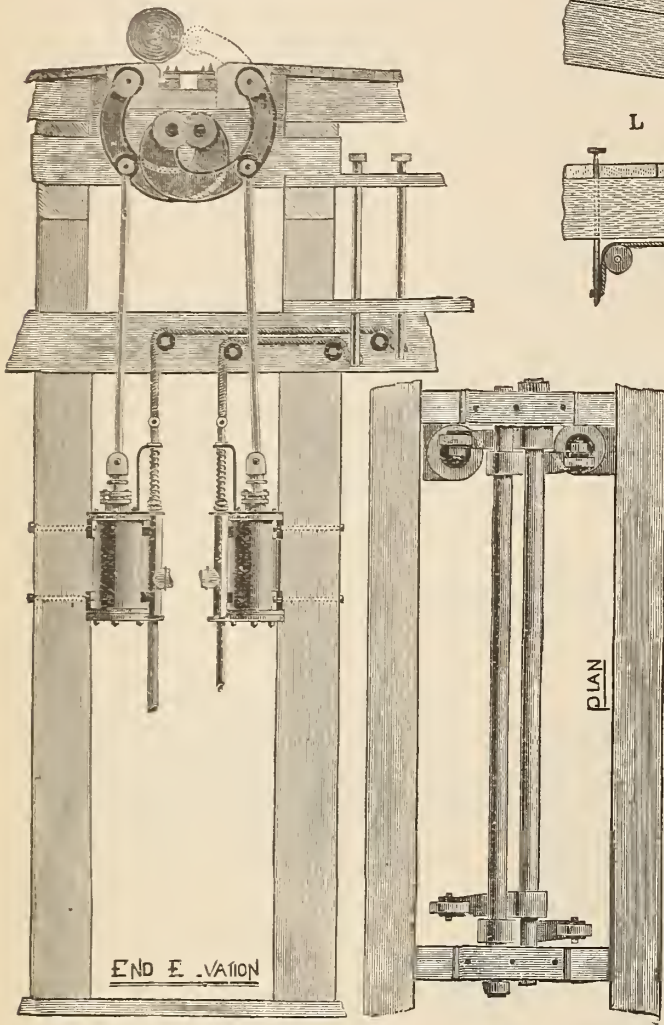
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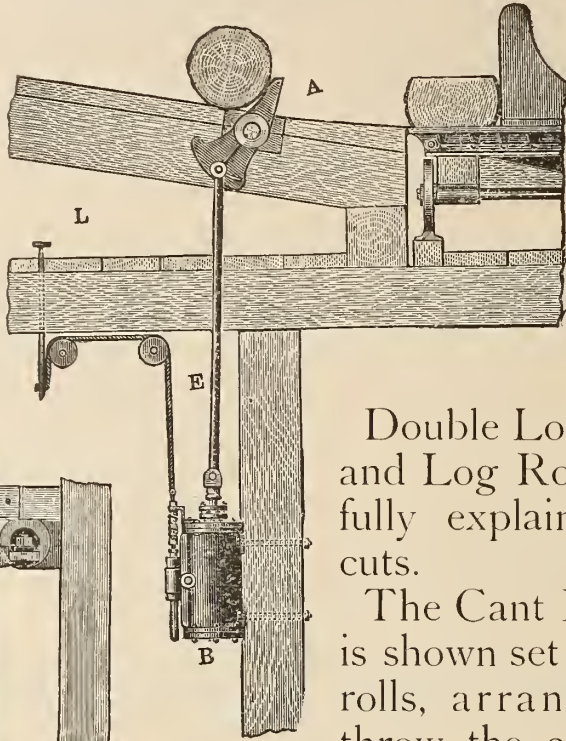
A. M. COLQUHOUN, Representative

Advertisement for Waterous Engine Works Co. featuring a circular graphic with the text 'GRIPS ALWAYS MOTIONLESS WHEN OUT OF CLUTCH' and 'SEE THOSE pins they are one of the features of the Waterous grip pulley. When in position the grips always stay there; when necessary to detach grips, press out split keys, pull out steel pins when grips drop out. This can always be done without stopping the shaft.' The company name 'WATEROUS ENGINE WORKS CO.' is at the bottom, with locations 'BRANTFORD, CANADA.' and 'ST. PAUL, MINN.'.

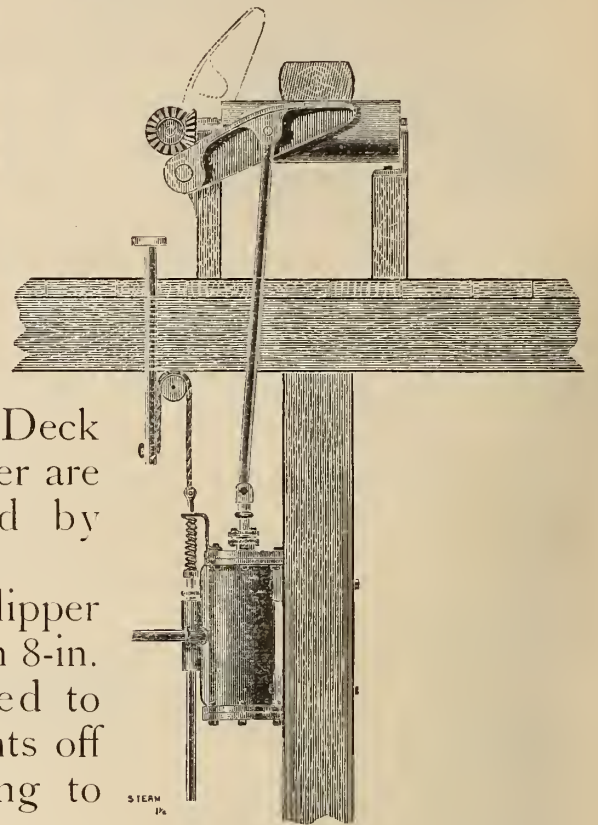
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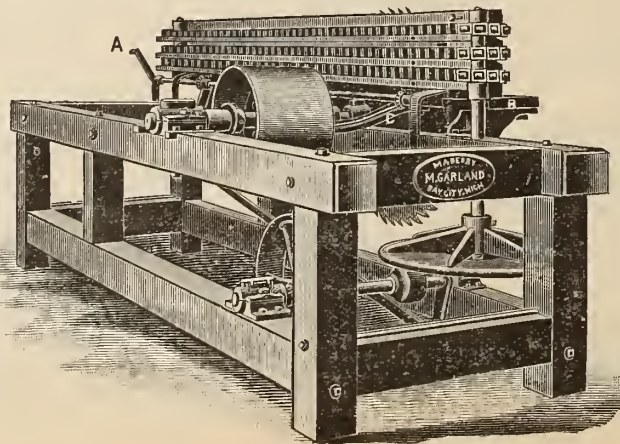
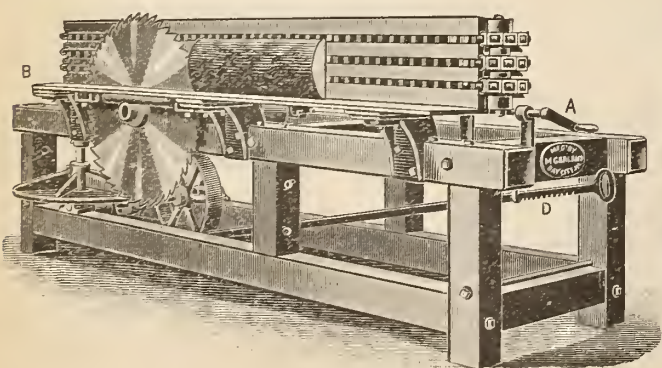
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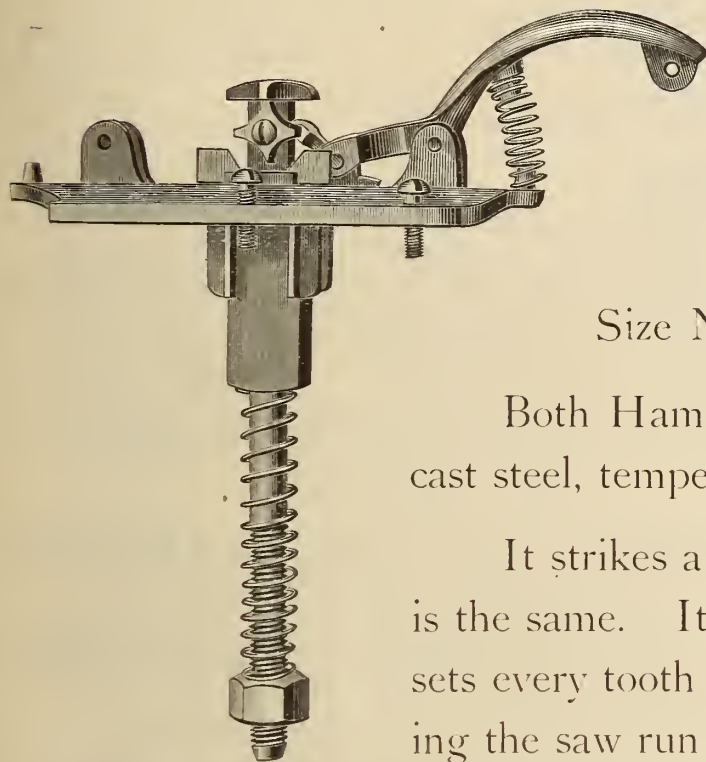
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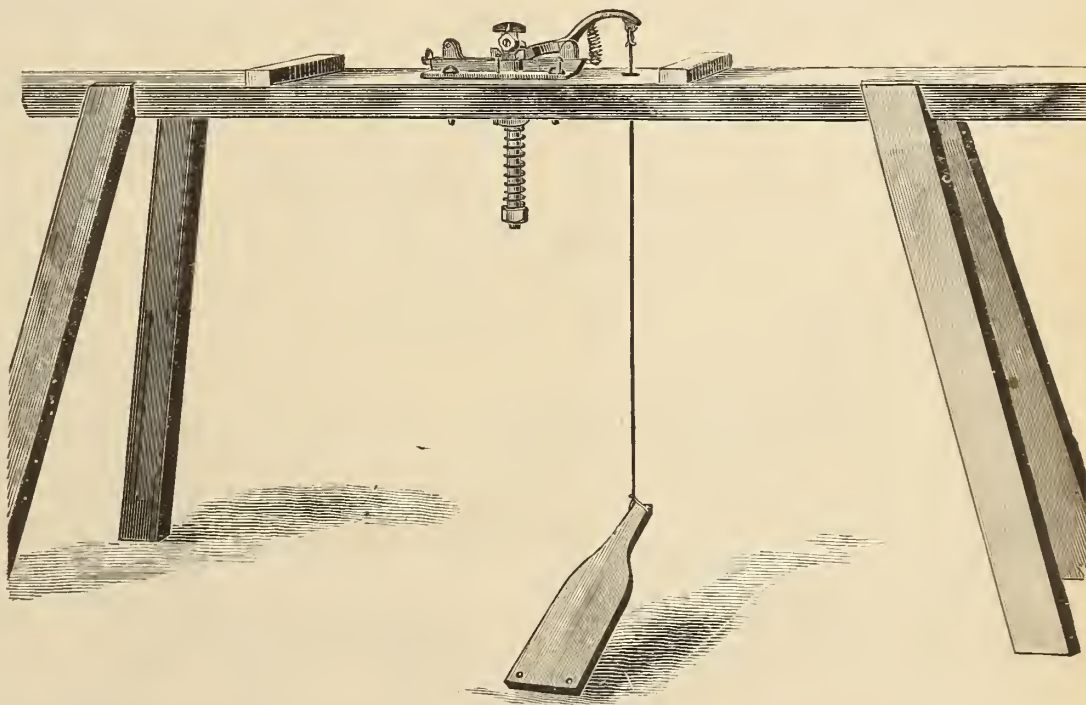
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Place the machine in a vice, or bolt it on a plank as shown in Cut; bolt holes are provided for this purpose: then attach a piece of string or wire, with a pedal on the lower end, to the handle; slacken the screw at the back of plunger and move the guide in or out, according to the size of saw teeth, so the hammer will not strike near the roots of the teeth: turn the regulating screw up or down, according to amount of set required. If the saw is very hard several light blows should be given to set it: strike light, and set a little at a time, especially the first time of setting, and always set near the points of the teeth.



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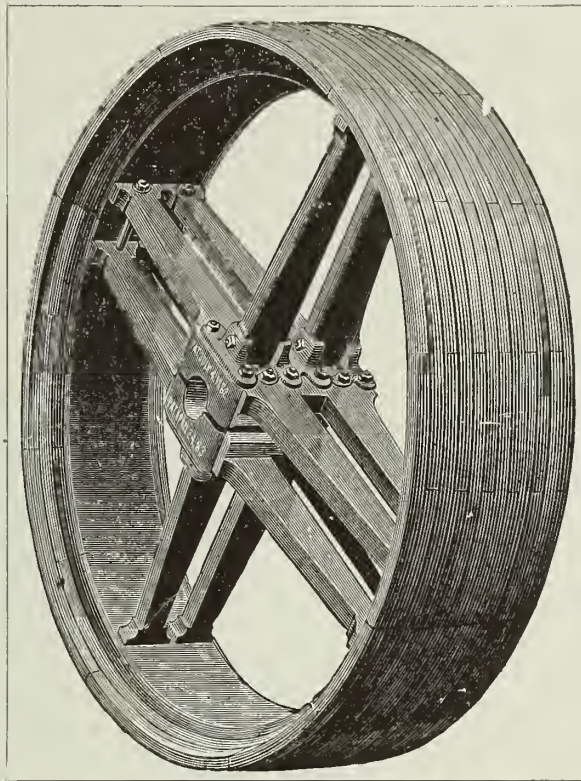
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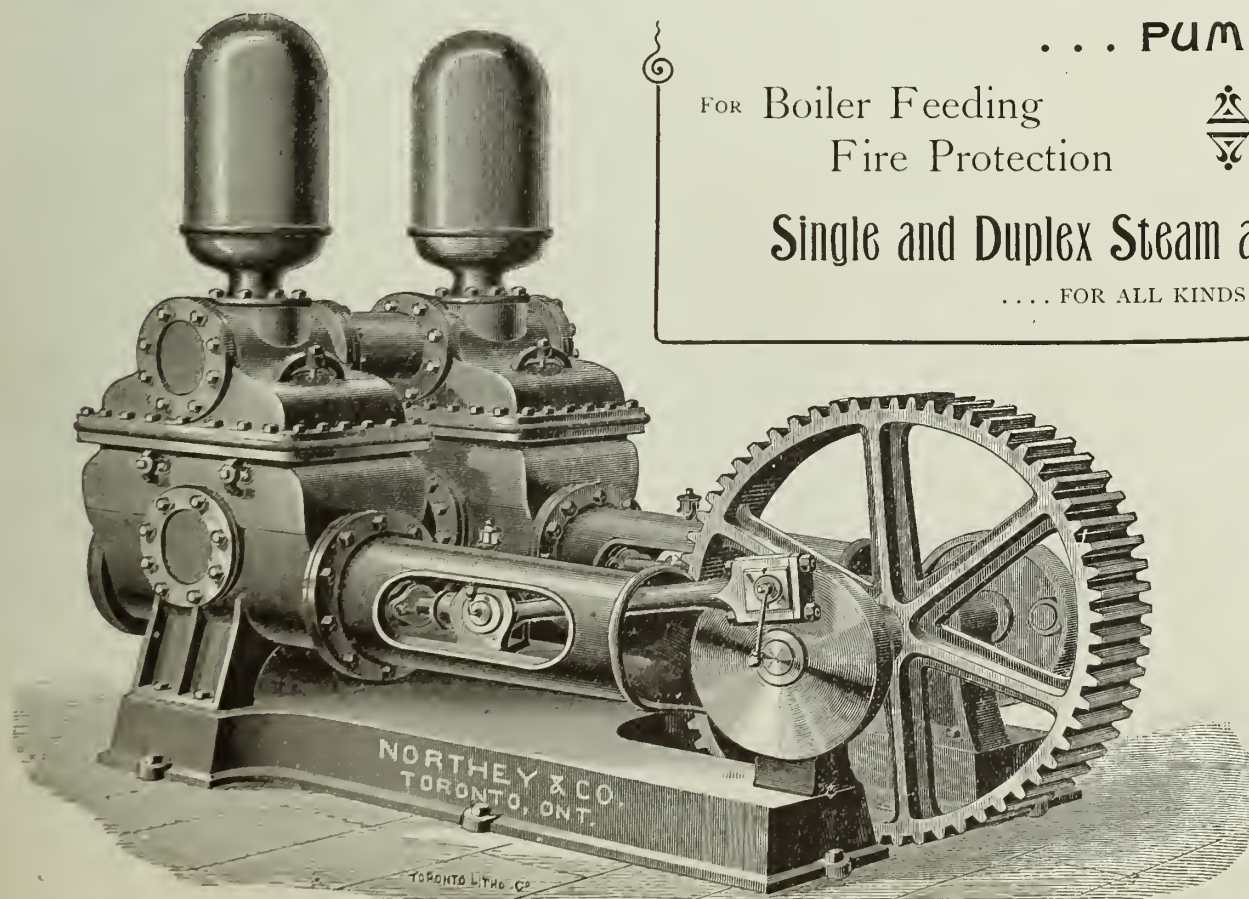
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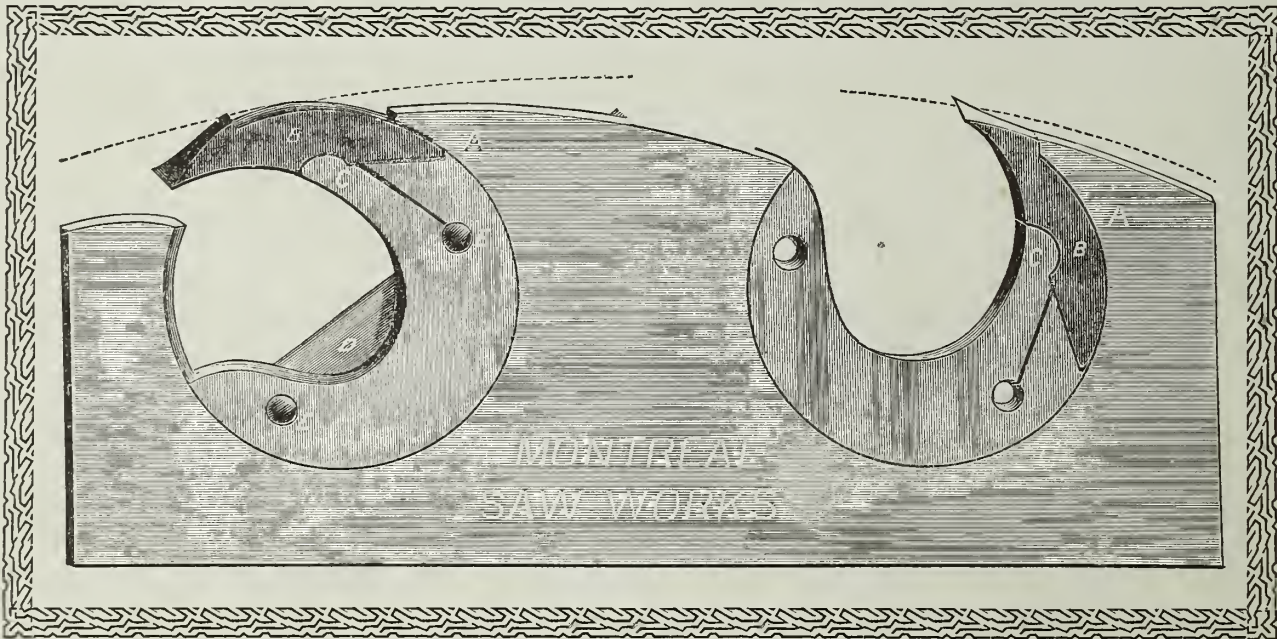
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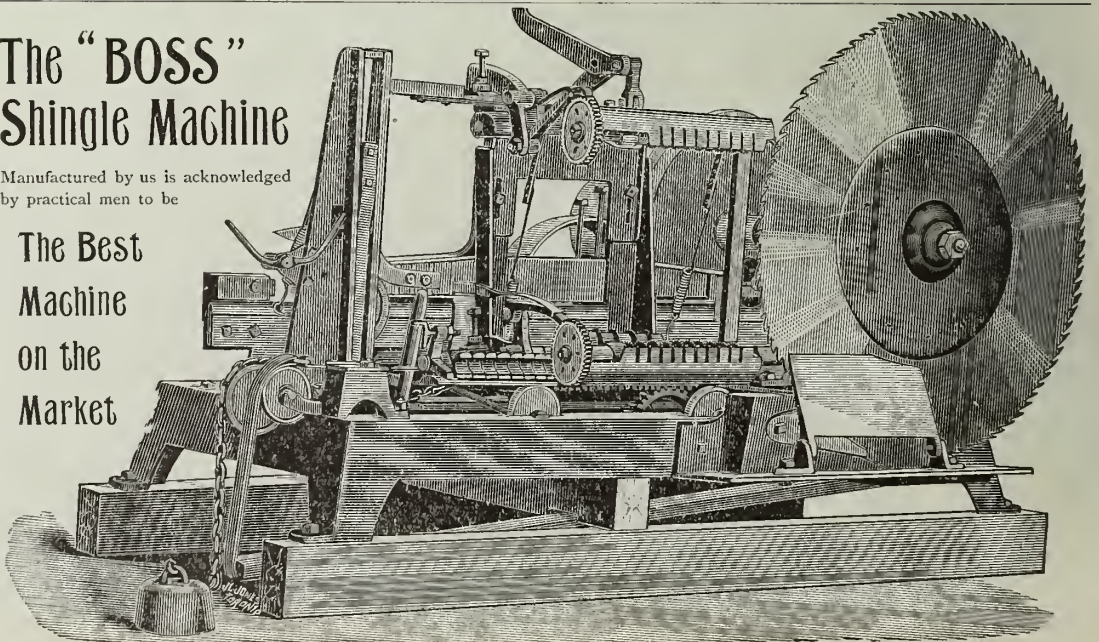
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VOLUME XIII.
NUMBER 3.

TORONTO, ONT., MARCH, 1892

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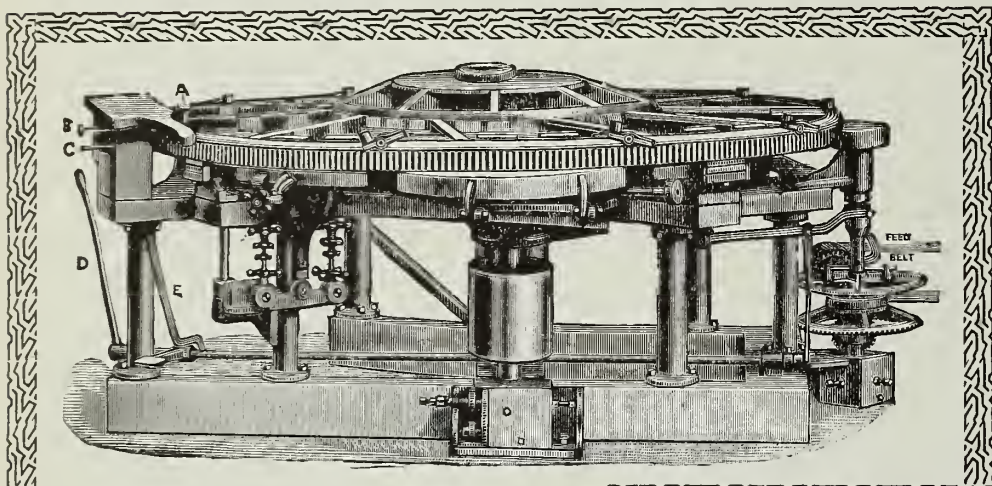


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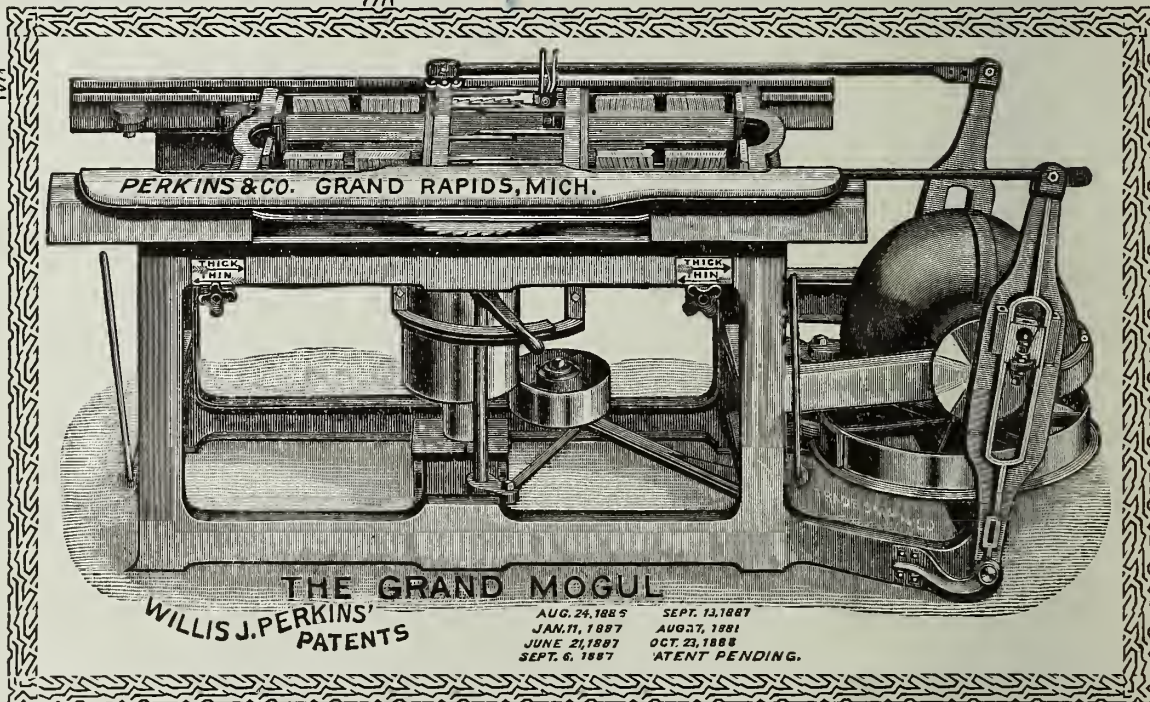


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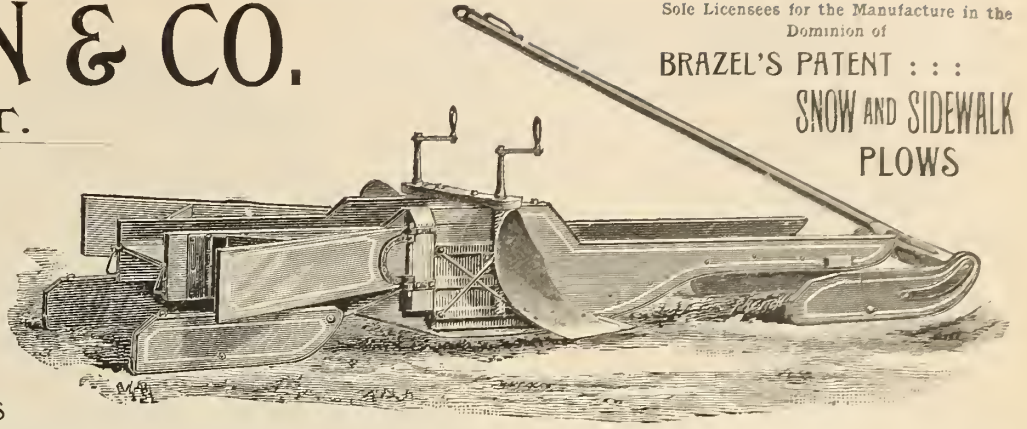
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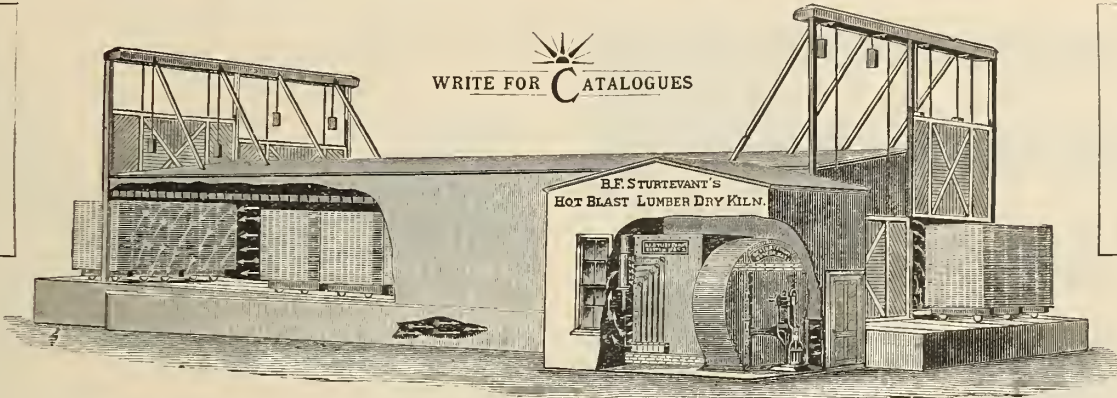
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THE CANADA LUMBERMAN

VOLUME XIII. }
NUMBER 3. }

TORONTO, ONT., MARCH, 1892

(TERMS, \$1.00 PER YEAR
A SINGLE COPY, 1 CENT)

CHARACTER SKETCH.

MR. JAMES MACLAREN

CANADA'S MILLIONAIRE LUMBERMAN—RECENTLY DECEASED.

"It is not luck but labor that makes men."

THE German poet Goethe was wont to say: "An honest and vigorous will could make itself a path and employ its activities to advantage under any form of society." A study of the life and work of the late Mr. James Maclaren, whose demise occurred at his home in Buckingham, Que., on Feb. 10, is an illustration of this fact from Canadian history. In his death the lumber trade loses one of the best known and most extensive operators, and the country a leading and enterprising business man. The foremost position he held in a large number of lumber and mining concerns in various parts of the Dominion would seem to show that he did not deem it wise "to carry all his eggs in one basket."

My ventures are not in one bottom trusted,
Nor of one place; nor is my whole estate
Upon the fortunes of this present year.

The deceased was born near Glasgow, Scotland, in 1818, and was 74 years of age when he died. He came to Canada with his parents when quite young. His father, David Maclaren, settled on a farm in the township of Torbolten, Carleton county, where he continued to reside until within a short time of his death.

Mr. James Maclaren spent his early years on the farm, entering into business later as a country store-keeper with his brother John, now dead, in the village of Peche.

The Gatineau country was then finely timbered with pine and Mr. Maclaren went largely into the purchase of logs and timber, which he sold to Messrs. Currier & Dickinson, who at that time owned the New Edinburgh mills. Hon. R. W. Scott had also an interest in those mills. About the year 1856 Mr. Maclaren bought an interest in this firm, Messrs. Dickinson and Scott retiring. The new firm took the name of J. M. Currier & Co., the members of which were composed of Mr. Currier and Mr. Maclaren alone. This firm carried on business for a number of years, when they bought out the Buckingham mills. Since that time Mr. Maclaren gave these mills his personal supervision. These mills were first bought in company with Messrs. Sincennes & McNaughton, of Montreal, who afterwards retired, leaving Mr. Maclaren the sole owner of the mills. Later Mr. Maclaren bought out Mr. Currier, and became sole possessor of the New Edinburgh mills.

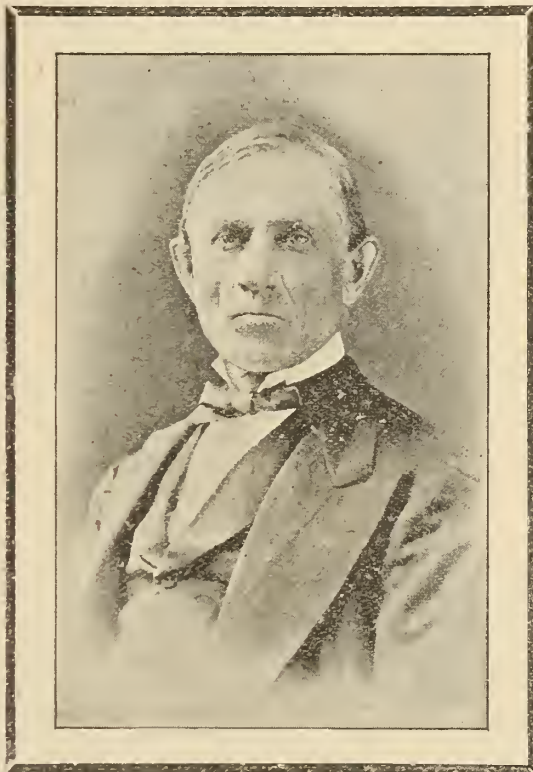
Mr. Maclaren took a great interest in the formation of the Bank of Ottawa, and was its first and only president, much of its success being due to his energies. He was a member of the firm of W. McClymont & Co., of New Edinburgh; the Canada Lumber Co., of Carleton Place; vice-president from its commencement of the Shepherd-Morse Lumber Co., formerly of Burlington, but now of Boston; president of the Maclaren-Ross Lumber Co., of New Westminster, B.C.; president of the North Pacific Lumber Co., of Port Moody, B.C., and was largely interested in mining operations in Ottawa and Hastings counties, and also held interests in sugar, salt and silver industries in Western Ontario.

He was of a very robust constitution, indomitable energy, shrewd and sharp in all business transactions and of sterling integrity. His first serious illness was last winter, when he was attacked with congestion of the lungs. Recovering somewhat, he visited the Isle of Wight, and returned home last spring slightly improved, but far from being well. He attended to business during the summer but at the beginning of the present winter he was taken with a complication of diseases which, added to the weak state of his lungs, made him an invalid with but little hope of his ultimate recovery.

He leaves, beside his widow, five sons, David, John, Alexander, James and Albert, and two daughters, Mrs.

Alloway, of Winnipeg, and Mrs. Raphael, of Ottawa. Rev. Dr. Maclaren, professor in Knox College, and Rev. Alexander Maclaren, a well-known Presbyterian minister, are brothers of the deceased.

Mr. Maclaren was estimated to be worth from five to six million dollars, but the will being under Quebec law does not state as it would in Ontario the value of his property. Deceased drew up his own will, which is in his handwriting. The great bulk of his fortune is left to his widow and two eldest sons, David and Alexander, these three being named executors. Mrs. Maclaren is also left the homestead, furniture, horses and carriages. They are enjoined to continue the different milling, lumbering and other enterprises for six years longer, when they are to divide the estate, one-fourth each to David and Alexander and one-sixth to each of three younger sons. To his widow he leaves \$6,000 a year during her lifetime or an option of \$70,000 shares of the Bank of Ottawa, of which deceased was president. To his daughter, Mrs. Thomas Raphael, of Ottawa, he



THE LATE JAMES MACLAREN.

leaves \$70,000 to be invested for her benefit and that of her children only, even the annual interest on this sum to be invested by the executors and not paid over if the executors think proper. Mrs. W. F. Alloway, of Winnipeg, another daughter, receives \$50,000, and her husband \$10,000. The two brothers, Rev. Dr. Maclaren, of Knox College, Toronto, and Rev. Alexander Maclaren, are left \$1,000 each. City Clerk Henderson, of Ottawa, an ardent disciple of Henry George, receives \$500. The wife of the testator's son David is left \$2,000, Knox College, Toronto, is bequeathed \$20,000, and the Presbyterian College of Manitoba a like sum. It is directed that the bequest to Knox College be paid within one year and be used for the purchase of books for the library. Manitoba College is to use its bequest as the authorities think best. A bequest to David Maclaren, of Fitzroy Harbor, a brother, of \$30,000, consists in the cancellation of a debt for that sum. Another debt held by a mortgage is not released by express terms; a sum of \$3,000 in cash is also left to David. The bequests to his wife are declared to be void unless she renounces all rights of dower or other matrimonial rights. The will is dated February 26, 1891, and some few changes are made by a codicil nine months later.

TIMBER LAND AS A MEANS OF INVESTMENT.

BY EDWARD JACK.

UNDER proper conditions and with proper associations, there is no better nor safer investment than that which is made in well selected timber lands. Among other conditions which should govern the intending investor in his choice are the following: character and quantity of wood, accessibility to conveyance by water and rail, preferably the former, freedom from causes tending to the occurrence of forest fires. All of these circumstances being favorable, the purchaser of timber lands has his capital invested, not in a bank, which, although paying a good rate of interest to its clients, is yet subject to all of the risks of over-speculation, as well as to fraud or mismanagement on the part of its officials.

The timber land holder is dependent for the increase of his property directly on the Creator, whose rain falls on the tree, watering its roots, while the circumambient air furnishes the chief part of its food. While funds deposited with the banker require careful watching, and the farmer's cattle constant food and attention, the tree is constantly adding to its stock of wood, and consequently to the wealth of its owner, even while he is asleep, and this without costing him the least care or thought. And thus his interest, instead of being either used up or invested in some precarious security, is monthly and annually added in the shape of increased wood. And this is not confined to a portion of his trees, but is equally divided among the whole of them, and when he comes to cut a portion of them away he is doing a very beneficial act to those which remain, since, by cutting away superfluous trees, the growth of the remainder is greatly accelerated, as by their removal an increased share of air and light, both so necessary to tree growth, is allowed to the survivors. In the cutting away of forest trees all attention should be given to this being done in a proper manner. Possibly one uninitiated in woodcraft would say: what difference can there be in allowing one man to cut timber, confining him to certain metes and bounds, while another is permitted to do so without any such restriction? The difference is this, that he whose work is unrestrained by bounds pushes his road back, often leaving valuable scattered trees close to his hauling roads; for there is a tendency among lumbermen, especially when snows are deep, to work back from their trams, even if the distance be great, as they find there a thicker growth of trees; and thus the ground, having been unequally cut over, is rendered less valuable to the subsequent worker, who will often demand a higher price.

Now, the man who is permitted to work on 100 acres only, and who is prevented by well-surveyed lines and proper overseeing, will cut this lot much better than he who has the right to cut over 1,000 acres. He will examine it more carefully to find out just where the best trees stand, and will weed out the large trees, leaving the smaller ones more room in which to grow, so that his successor, in from five to ten years, will again have good cutting in the old works. In fact, the narrowing the limits of a team's work is an excellent encouragement to a due and proper economy.

It is in general a mistake for the capitalist, unless his means be very ample, to buy timber land merely for the purpose of holding for a rise in value. The dealer in timber lands should take care before he purchases to ascertain when and how his purchase can most readily be made to pay, and he should encourage the lumberman of small means to work on such land, by aiding him to erect mills and clear streams, such money so spent to be returned to the capitalist by a slight addition to the stumpage.

HAVE you subscribed for the CANADA LUMBERMAN?

VIEWS AND INTERVIEWS.

Sawdust
For Building.

This is an age when science brings into use what a few years ago would have been considered the most worthless refuse. There is very little that the ragman and bone-picker rescues from the gutters and lanes of our towns and cities that may not be manufactured or used in the manufacture of things useful and serviceable. We learn of an ingenious German who believes he has perfected a means of making a profitable disposition of sawdust by which it is applied to a mechanical use, and has thus far been attended with success. An acid is mixed with the sawdust, and the whole mass moulded into blocks or any other form, resulting in a fine material for building purposes. The blocks assume extreme hardness of surface, and are practically non-combustible. The material in the moulded forms is said to be much stronger than timber in these forms, and much lighter than either iron or steel, and can be prepared cheaply.

Pennsylvania Timber
Giving Out.

Not only in Michigan is the supply of timber becoming exhausted, but also in Pennsylvania. W. H. Hyde, an extensive operator in that State, says: "The timber is giving out very rapidly and few mills will be running five years from now. The annual output is falling off at the rate of 20,000,000 feet each year. A. Thompson, of Ridgway, who has been getting out 5,000,000 feet each year for the past eight years, has finished his tract. The Oyster Run Mill, in Elk county, with an annual output of 4,000,000 feet, has given out, and the firm of Gillingham, Garrison & Co., of Philadelphia, which has operated for the past twelve years, is about to wind up its interests. Henry, Bayard & Co., another Philadelphia firm, is still actively at work, and is getting out a possible 20,000,000 feet annually. Their mills are all steam power, and the lumber is sent to the Philadelphia market by rail. J. Powell, another extensive operator, has shipped 3,000,000 feet yearly for the past twelve years."

Broke
The Record.

It is rather a difficult matter to get ahead of the nineteenth-century newspaper reporter. One is apt to know it when the "boys," who know their business, find themselves "scooped" on an important piece of news. But in this keenness for news it is the case that sometimes the reporter gets ahead of his own record—at least ahead of the facts. Here is a confession made by a reporter of a New York daily paper, who has managed to run ahead of even the dreaded forest fire. He says he was sent to New Jersey on a certain occasion to write up the forest fires. When he left his train he went to the hotel to "get his bearings." "How about your big forest fires?" he asked of the proprietor. "Forest fires," answered the other, loftily, "we haven't had any at all. What do you want to know about them for?" he added, a little inquisitively. "Oh, I'm reporter for the —, of New York." "A reporter, eh? Why, of course. Sit down. Biggest forest fires you ever saw. Magnificent spectacle. We beat the country on forest fires. You can say that I said so. Wait a minute. John, run out and get Smith and Brown and Jones and White, so they can tell the reporter about the fires;" and the proprietor and Smith, Jones, Brown and White, broke the world's record in the next half hour for lying about forest fires.

More Haste
The Less Speed.

The man in the biggest hurry is not always the man who accomplishes the most. The age has no room for lazy men, though lazy men there be; the age wants its work done quickly, but it wants it done well. An observing lumberman tells how one foreman, in the keenness to get certain work done, missed the mark. "One of the men," he says, "was squaring up some fence posts upon a circular saw table. The belt on the saw arbor was so slack that the saw would not run six inches in the cut without stopping and waiting for the saw to recover its speed, and at each stop time enough was spent in waiting to make the cut the full length of the post had the belt been of proper tension. While standing by him the foreman came up and he called his attention to the belt. "Never mind, John," said he, "do the best you can; the boss is in an awful hurry for

those posts, and the customer is waiting for them, but as soon as you get through take up the belt." Now here was a clear case of mistaken economy on the part of the foreman, although an excellent man otherwise. Yet if he had reflected a moment he would have plainly seen that if he had ordered the belt taken up at once the boss would have got his posts out much sooner, besides saving considerable damage to the belt by slipping over the pulley; for there is nothing more destructive to a belt running at high speed than constant slipping. The heat generated from the friction is more destructive than the strain, so that in this case there was not only a loss in time, but a loss in the damage sustained by the belt."

Is it
so?

The News, of this city, quotes the North Star, of Parry Sound, in its protests against the abolition of the export duty on sawlogs. "The towns along the Georgian Bay," we are told, "are threatened with disaster. Midland has been almost ruined by the closing of her sawmills, and other towns and villages along the bay are being more or less affected by the change." This question has been discussed in these columns so much of late, and from so many various standpoints, that it seems a work of supererogation to add another line to the discussion. No one can regret more than the LUMBERMAN the effects of any policy that is going to permanently injure the lumber trade of this country. There is no questioning the fact that large quantities of logs are being cut by American firms and towed across to the United States to be manufactured there. It is equally true that our mills are doing no small share of cutting, and that the coming season in particular the mills will be kept busy. Our Little Current letter on another page tells of a busy spring ahead in that district, and an interview with a Midland millowner in the ELI page indicates that this town has not lost all its "go." It must be admitted that it was unfortunate that the Emery Lumber Co. saw fit to close what is familiarly known as the Miscampbell mill, but the circumstances attending this step were exceptional and not general. Not a few of the statements touching this whole question, that have been given currency by the general press of the country, are a long way remote from conditions as they actually exist.

Asphalt or
Wood?

In this country we have laid at the door of wooden pavements not a few of the ills that flesh is heir to. Medical men, from a sanitary view, condemn the ordinary cedar block. As we have pointed out in these pages before, there is another side to this question, and the fault is not always with the material, but more frequently with the manner in which the material is handled. Who has not heard of, if they have not experienced, something of the dense fogs of the greater London? A writer in an English lumber exchange is disposed to make these an additional charge upon wooden pavements. His deductions are from observation, and he says: "I have observed that as the area of wood pavement has increased at the West End, so has the frequency of fogs, the streets so paved being a species of canal giving out moisture during the autumn and winter months. In the same way as the area of asphalt has increased in the city, so has the frequency of fogs decreased. It is an impossibility for moisture to arise from asphalt as it does from wood pavement. I give my experience of the 23rd ult. On leaving the city at four o'clock, all around the Bank and as far as asphalt extended down Queen Victoria street the atmosphere was comparatively clear, but directly the wood pavement commenced and down to Blackfriars bridge the fog was dense. From the bridge to Northumberland avenue, along the embankment, which is macadam, the fog was less dense, being, however, as bad as ever on the wood at Charing Cross, and all up Regent and Oxford streets. I have known many such instances of late years."

What's Life
Worth?

Is human life worth anything? The individual "I" thinks so; the aggregate "I" often acts as though there was little value there. Not a day passes, probably, without some one's life being sacrificed to the carelessness of another. We may in the keenness of the race for the almighty dollar try to laugh the matter down,

but better draw up sharp sometimes and treat the case with rather more seriousness. Take boiler explosions. The daily press are seldom without an item chronicling the death, or worse still, almost, the permanent mangling of one or more men from this cause. Where is the fault? A writer in a contemporary has been discussing the subject and his showing of it indicates that even the individual "I" may perhaps be wickedly indifferent of the same "I." Here is the way the case is put: "It is not often that a boiler goes to pieces in a first-class mill, for the reason that good boilers are placed in them, and competent men employed to take care of them. Boiler insurance also does much to reduce the risk of explosions. It is the 'Jim Crow' mill that is dangerous; the little mill that finds a 'set' first here and then there. Because a man has a desire to manufacture and sell lumber for a living it does not follow that he is a mechanic, or that he is even possessed with common sense when it comes to operating a sawmill. He has but little money maybe, and he wants that little to go as far as possible. He visits some second-hand dealer in whose stock there is an old boiler which should be labelled, 'Short route to eternity;' it is offered to him cheap, and he buys it. Such a boiler is about as dangerous as dynamite, and sooner or later performs its deadly work. In other lines there is cheap machinery which will do fairly good work, and which does not hazard the lives of the men employed around it. For a comparatively small amount of money it is possible to buy a planer or a sawmill which will answer the needs of the mill man whose ambition is to bore with a small augur, but any man is either criminally ignorant or negligent who will put in a low grade boiler. There ought to be some way to protect these men against themselves, but there is not. Human life is very cheap, and if an old rotten or poorly made boiler blows a half-dozen men to kingdom come, that ends it. In the great majority of cases not even an investigation is made, and if the proprietor comes out of it alive he is at perfect liberty to reset the death-trap."

Quality,
Not Quantity.

Prof. Drummond, in one of those clever little hand-books which have found such a large constituency of readers, tells us that it is quality, not quantity, that this world most needs. His application is to things moral rather than material, but how true is this in the work of the workman in any of the callings of life. An employer of labor has illustrated the case in this way, and what he has said is, at least, true in spots: "I have had a great many men in my employ, but I have never had one yet that amounted to anything who was not independent. No employe can be independent unless he is conscious of his honesty. He may not report for duty till ten o'clock in the morning, but he works for business, while the man who commences promptly at seven and quits at the stroke of six may not be worth his bread and butter. We cannot measure the value of any man's services by the time he puts in. The poor man may work fourteen hours a day and earn much less than the good man earns in eight hours. It is the ability to accomplish results, not the time employed, that counts nowadays." In other words, it is quality that tells. Quality may be made to have reference to the machine as well as the man. Take this with its practical application to the lumber trade from a mechanical exchange: "The best way to make the manufacture of lumber profitable is to economize in every department, from the stump to delivery. The price of lumber is no higher now than it was twenty years ago, but the cost of manufacturing hardwoods has been reduced within ten years fully one-half. This has been effected mainly by the improvements made in machinery and by greater skill on the part of all hands employed in the business, from the mill-owner down. There is no economy in using poor machinery. True enough, there are many men making a living out of veritable "rattletraps" of sawmills, but it is not a 'greasy' living, and in many instances the employes are relatives and dependents, and the market a local, an isolated one. To compete successfully in the general market requires the best of machinery and skilled employes. A sawyer and filer who can make a mill cut 30,000 feet per day of perfect lumber are worth four times as much as those who can make the same mill and hands cut only 20,000 feet."

A NEW STEEL BAND MILL.

INTEREST in the band mill grows with lumbermen. The engraving on this page of their "New No. 2 steel Band Mill," manufactured by the Waterous Engine Works Co., of Brantford, Ont., illustrates a mill modelled on radically different lines to the ordinary band sawmill; one certainly foreign from the previously conceived ideas of what a band sawmill ought to be.

Many of the standard mills have but one post supporting the upper wheel, others have two and an outer arm passing between the wheels and reaching to the upper shaft, making a third bearing under the shaft. In the Waterous mill the necessary rigidity is obtained by the six steel columns connecting the very heavy lower and upper cast plates. These make a much more rigid frame and give a much greater bearing to stand the strain than the single or double post mills.

In addition to this, doing away with the outer arm, we are enabled to bring the wheels fully eighteen inches nearer together. This permits the sawing to be done much closer to the upper wheel. This is a most important point. Any one knows from experience that a belt running from one pulley to another can be shoved on or off the receiving pulley while in motion quite readily, while at the driving pulley hardly any pressure that can be put upon it will disturb it. The effect is the same in the band saw, and the aim of all band saw builders is to have the cutting done as near the upper wheel as possible.

Another important point is the triangular frame supporting the upper shaft and wheel. This upper wheel has to be moved up and down as the tension is applied to the saw; with narrow bearings it is apt to bind with the strain that the saw puts upon the outer end of the shaft, and in this way rises up unevenly, or when the tension is being taken up by the weight, the binding may prevent a proper operation of the weight. With the triangular frame we have what is equal to a four foot bearing on the front centre post, making it impossible for any binding to take place, in adjusting the tension of the saw either by screw or weight.

The two boxes of the upper shaft are connected by a very heavy casting, making it impossible to get them out of line, and this casting is hinged to the triangular frame, and so arranged that the effect of the tension weight is applied directly to it and adjusts the tension without having to affect the triangular frame. This is a great improvement on the usual method of applying the tension. As will be seen from the illustration, the guide is very stiff and has very convenient adjustments. Its weight is counter-balanced and it is raised and lowered by friction, readily applied by the sawyer. The bearings for the shafts are eighteen inches long, and of ample diameter; the lower bearings are adjustable and the upper bearings are also adjustable by wheel and screw.

The effect secured by the outer arm and third bearing in ordinary mills is secured in this mill by running the bearing to the centre of the wheel, coring out the hub so as to overlap the bearing, thus bringing the centre strain of the saw on the bearing instead of on the unsupported shaft. The lower wheel is of ample weight and the upper wheel is of very strong and light design, the proportion being arranged to a nicety to prevent any possibility of the carrying over of the upper wheel. The shaft and bearings of the lower wheel are above the sole plate in plain sight and of easy access, unlike the majority of mills where the shaft is hung under the sole plate and difficult of access.

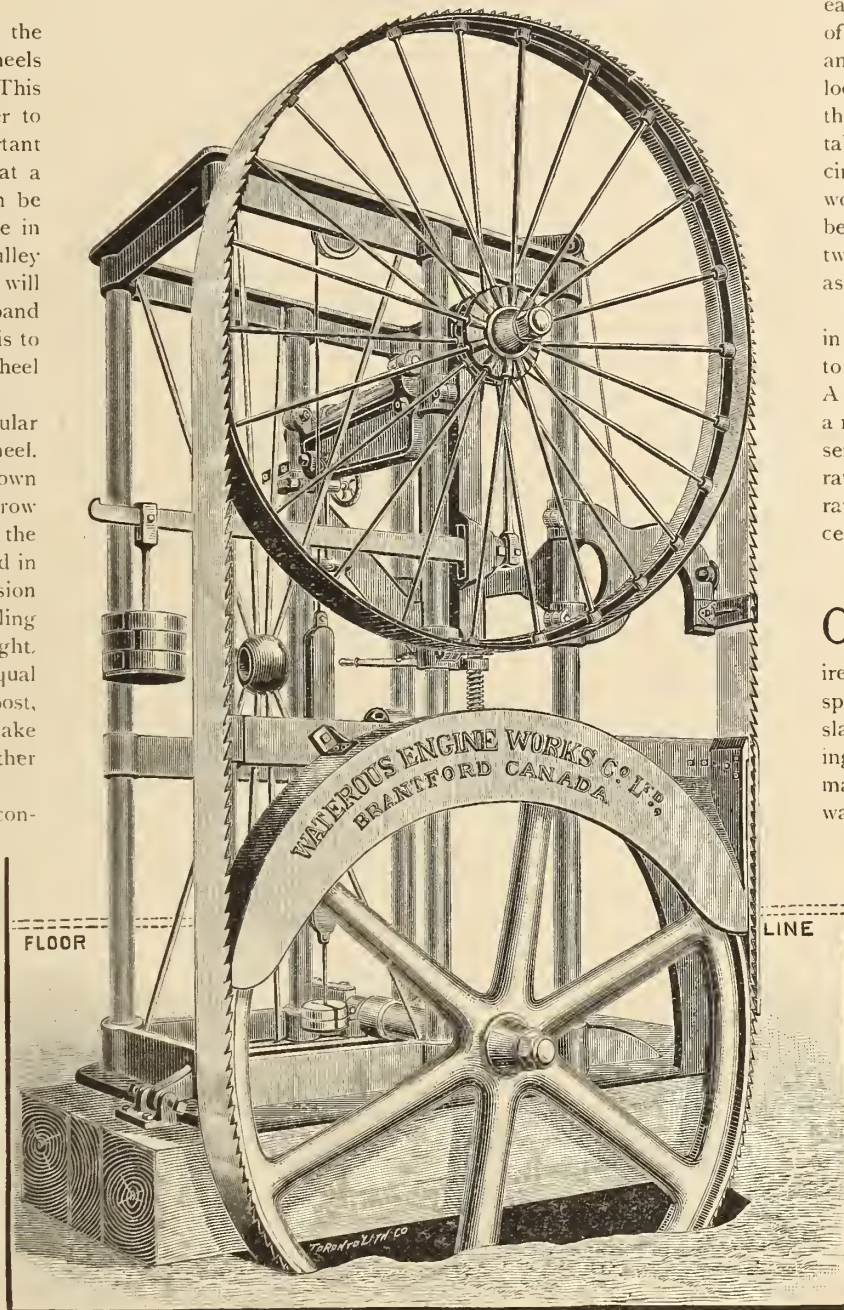
In addition to the six steel columns the mill is further strongly braced as shown in illustration. The lower wheel is protected with a cast iron covering, with a chute for discharging any accumulated dust or bark, while the saw runs through a cast iron lower guide, extending down past the carriage line, protected thoroughly with rubber guides, which steady the saw and prevent the

sawdust passing down and thus getting between the saw and the lower wheel.

The wheels of this (the No. 2 mill) are eight feet in diameter, and are made to take ten and twelve inch blades, the saws being much shorter than usual for that sized wheel, namely, forty-three feet.

The Waterous Co. have one of these mills erected within a short distance of Brantford, where it can be shown in practical operation at any time cutting hardwood for the American market.

So much importance is to be attached to the character of the machinery used in manufacturing that we are of the opinion that the manufacturer is always ready to welcome any suggestion pointing towards improvement and greater efficiency in his particular line of work. Lumbermen, by their enterprise in the past, have



THE WATEROUS STEEL BAND MILL (Pat. Can. and U.S.).

shown that they are quite alive to this view of the matter; and as the season is approaching when they will find it necessary to place their mill properties in shape for practical operation, it is hardly likely that the Waterous band mill will escape thoughtful consideration at their hands. All the difference in a season's profits may be in the character of the machinery in use.

THE TIMBER TRADE OF HONDURAS.

THE first wood-cutters in the territory went to Belize one hundred and fifty years ago, taking with them their slaves and their cattle, and since that time Belize has been principally occupied with the various camps or mahogany works, which extend between the rivers Uluá, Chameleon, Patteck and Wanks, on the Atlantic coast. The timbers at present most sought after for shipment are mahogany, cedar, rosewood, zebra, and fustic. Mahogany and cedar are the leading exports and shipped mainly to England, though some contracts have re-

cently been taken in the United States. The price of mahogany in London ranges from \$110 to \$175 per thousand superficial feet, and cedar from \$90 to \$180. Rosewood, zebra and fustic are cut in short lengths and shipped as ballast. Rosewood brings from \$25 to \$40, and fustic \$30 to \$40. The logs are squared before shipment. The timber on government land is free to any one who proves to the Administrator of Customs that he has ample means to transport it to market, a great deal having been lost before the adoption of this rule through the timber being left to decay after being felled. It can be cut at any time during the year, but the best season is during the rainy months, so that the logs may be ready by the beginning of the dry season, on March 1st. The camp is generally composed of from twenty to fifty men, who are divided into companies, each having a captain. A foreman, in charge of the whole camp, keeps accounts of logs cut and other details. One man, called the hunter, looks up the trees fit to be cut and reports to the foreman, who examines each one. Care is taken not to fell any trees less than eight feet in circumference. The cutting is done by piece-work, two trees from eight feet to twelve feet being a day's work for one man, and a tree twenty-five feet in circumference being regarded as a day's work for four men.

Over 300 trees are sometimes felled in a camp in a single season. The carriage of lengths to the river banks is done principally at night. A foreman's wages will vary from \$60 to \$100 a month, with occasional allowance of an extra servant; first captain \$18 to \$20 a month, with rations; and choppers \$10 to \$14 a month, with rations. The export duties on mahogany and cedar are \$8 per 1,000 superficial feet.

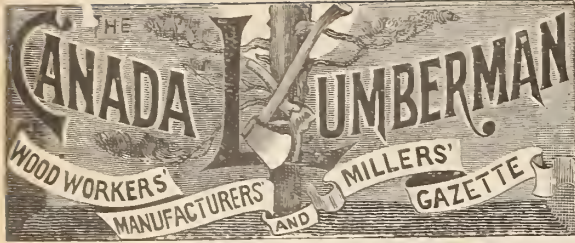
THEY BOUGHT BURNING HOUSES.

ONE of the strangest businesses in Ancient Rome is mentioned by Juvenal in his Satires. It consisted of buying houses on fire. The speculator hurried to the scenes attended by slaves carrying bags of money, and others carrying tools, judged the chances of salvage, and made a bid to the distracted houseowner, who was glad to accept anything as a rule. The bargain struck in all haste, this earliest of fire-assurers set his slaves to work and secured what he could. Sometimes he even put out the flames, and so made a coup. It was a business for capitalists, but the poorest who speculated in a small way could hardly lose if he had presence of mind enough to grasp the chances. Thus Cato the Elder, and above all, Crassus, laid the foundation of their great wealth. The latter had a great passion for such gambling. He gradually collected a force of carpenters, masons, and such artificers—slaves, of course—which reached 500 men. Not only did he buy houses on fire, but also, enlarging upon the common practice, he made a bid for those adjoining which stood in danger. His proposals were commonly welcome,

we learn, so helpless were the people and so great the peril. By this means Crassus became the greatest owner in house property in Rome.

WARPING OF LUMBER.

IT is said the wood on the north side of a tree will not warp as much as that from the south side; and that if trees are sawn in planes that run east and west, as the tree stood, will warp less than if cut in the opposite direction. However this may be, it is certain that the tendency to warp when sawn into boards is much greater in green than in dry wood, and that the convex side of the curve is always toward the heart. This warping, due to unequal shrinkage, and to the more open texture of the external portion of the tree, is not found to occur in the middle plank or board of the log, excepting as it may, in slight degree reduce the breadth.



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THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

THE GOVERNMENT FORESTRY MEASURE.

THE Ontario Government has, as was anticipated by the LUMBERMAN in a previous issue, taken a forward step in Canadian forestry. In the Speech from the Throne the announcement was made that a commission has been appointed to report upon the desirability of establishing a forest reservation and park in part of the Nipissing district, south of the Mattawa River, and upon the methods and expense of maintaining and managing the same. Subsequently Mr. Hardy, Minister of Crown Lands, explained to the House the scope and nature of the commission. The district which it is proposed to establish as a park is north of Haliburton, south of the Mattawa River, west of the Ottawa and east of Parry Sound, embracing about fifteen or twenty townships, more or less. In six, eight or ten of these is a number of small lakes, which are the fountain-heads of several rivers flowing east and west. There is a great accumulation of water in these townships. They are practically unsettled and are considered unfit for agriculture; the pine is off them, the hardwood remains.

The commission consists of Mr. Aubrey White, Assistant Commissioner of the Crown Lands Department; Mr. Archibald Blue, Director of the Bureau of Mines; Mr. A. Kirkwood, chief clerk of the Crown Lands Department; Mr. Dixon, of Fenelon Falls, inspector of surveys, and Mr. R. W. Phipps, superintendent of forests. Mr. Gibson, of the Department of Mines, is secretary. The only person who will be remunerated for his services will be Mr. Dixon, the surveyor. The object of the commission will be first to investigate the character of the townships and ascertain those best adapted for the purpose, having regard to the nature of the soil, etc., and then to tabulate and schedule the information for the benefit of the House.

In taking measures to constitute a forest reservation the Government has good reasons and well-established precedents to support the movement. It is hardly necessary to prove that the destruction of the forests of a country, in too large a measure, has an important

effect upon the rainfall of a country, to the prejudice of its agricultural interests. As the trees are felled and the woods cleared, so our streams and rivers dry up or are lessened in extent and volume. In Europe the Rhine, Volga, Po and Seine are all waters that have been diminished in depth to no inconsiderable extent by the clearing of the woods. At the Forestry Congress, held in Vienna in 1873, it was shown that the Elbe had diminished ten feet in half a century. And close students of conditions and changes that have taken place in the rivers and streams on this continent tell us that like results follow like causes; cases in point are the Connecticut, Ohio and Hudson rivers.

The same importance may not be attached to changes in temperature; these changes are very noticeable in this country; authorities differ in regard to the influence of the removal of the forests upon the temperature, yet such close observers as Noah Webster, Dr. Rush, Thos. Jefferson and others, have satisfied themselves that these changes, which we all remark, are due largely to the lessening of forest protection in different parts of this continent.

These and other considerations no doubt controlled Colbert, minister of Louis XIV., in drawing attention more than 200 years ago, to the dangers that threatened France on account of the destruction of her forests. To-day France, along with Germany, are the foremost countries in the world in the intelligent consideration that is given to the management of their forests.

The establishing of a forest reservation on the lines suggested by Mr. Hardy, though at the outset we may move on a less elaborate scale, is a step taken some time ago by American legislators in the setting aside of certain reservations, as the Adirondack and the Yellowstone Park. This work perhaps owes its inception to the agitation started thirty years ago by the American Association for the Advancement of Science, who presented a memorial to Congress asking that something be done to secure the preservation of the great Adirondack forests. Australia and India have also of late years paid much attention to this subject; so that all over the world the important question of forestry, in one form or another, is receiving attention. Our Government is acting in the best interests of the country in making forestry an active question in the present day, instead of leaving it to future legislators to take aggressive measures when less opportunity may exist for doing anything practical. The history of other countries shows, that a late, in contrast to a forward movement, might easily be made the programme, and to the permanent loss of the country.

Incidentally Mr. Hardy mentioned that there are other reasons which warranted the Government in moving in this matter. The lakes and streams in the proposed district abound in fish, and is also the home of game and deer. It was thought it might be well to set apart this county as a refuge for all wild animals and a place where fish could not be caught by seine, or to any large extent, and to do both of these things at no great cost to the country.

Though lumbermen do not usually receive credit of heeding the advice, "woodman, spare the tree," and immediate and material results are often likely to be the stronger controlling power in dealing with our forest resources, they are, at the same time, among our most loyal, as well as enterprising citizens, and they are ever prepared to stand in the advance guard when the national welfare is at stake. They and the citizens generally will, we believe, await with interest the report of Mr. Hardy's forestry commission.

MORE TARIFF MATTERS.

THE lumbermen of the United States, at least some of them, will meet in convention in Washington this month to personally press their protests against the Bryan free lumber bill. The question is being agitated with the usual ardor of our American cousins. The addition of a cipher or two in some of the calculations made is neither here nor there with those who are leading the agitation. For example, we are told in the requisition calling the convention, that in 1891 the value of Canadian forest products imported into the United States was \$13,500,000, though how these figures were made up neither Mr. Huyett nor any of his friends have

been able to tell us. The fight, in truth, has got so warm that the lumber press are now fighting among themselves. The Northwestern Lumberman, of Chicago, which leads the agitation, wants any advertising advantage that may come from this discussion to count for its own coffers, and has taken occasion to upbraid the Timberman, and the Lumber Trade Journal, of its own city, two of the ablest representatives of the American lumber press, and the Mississippi Valley Lumberman, which speaks for the important lumber interests of that section of country, with want of zeal and loyalty to United States lumber interests. These assailed journals, of course, hit back, making the charge of hollowness against the Northwestern Lumberman, alleging that the convention scheme was engineered in the office of the Northwestern, the call issued by one George A. Priest, a Government employee, for political purposes, the circular written on Northwestern Lumberman paper, while the man Huyett, who has furnished the statistical artillery, "is one who has made a failure of everything he has touched, and the Northwestern Lumberman is willing that he should make a failure of this if he did, and take the obloquy of making a failure." Altogether it is a nice little piece of journalistic "scrapping" worthy of the country press of any backwoods village.

But the "scrappers" aside, what is the marrow of the question? The lumbermen of the Southern States are among the strongest opponents of the Bryan bill. Their chief market, the Southern Lumberman says, is in the great lumber centres of the United States, nearest the Canadian market, and with the advantage of freights on our side and better transportation facilities "the admission of the Canadian manufacturer with free lumber from Canada would practically crush out the southern manufacturer." This journal slightly modifies the rather strong statement which we have just quoted by adding: "Perhaps in this State (Tennessee) and Kentucky the effect would not be so damaging, for the reason that the staple timber of these Southern States is yellow poplar and this wood cannot be obtained from Canada, and many of our local dealers sell poplar in Canada. But the free competition from Canada would unquestionably hurt the yellow pine manufacturer, crowding his lumber back from the Northern market and depressing its price, and this, following an unprecedented low price of cotton, would be disastrously felt in the south." At the same time, the Southern Lumberman "speaks out" plainly in favor of entire free trade, if such were practicable and possible, which it hardly anticipates under a Harrison-Blaine administration.

The lumbermen on the Pacific coast are protesting on the ground that "the opening of American markets to British Columbia mills means destruction to both American mill interests, already depressed to the lowest limit by over-production, and the growing ship-building interest on the Pacific coast."

Other territories view the matter according as the change would affect local interests. The consumer, on the other hand, is making less noise, apparently; he is not "flaunting forth screech after screech of senseless assertion, going off half-cocked, nor arranging a row of ghosts to frighten lumbermen," which sin one Chicago lumber journal lays to the charge of another, in his agitation, but he is making his influence felt with his representative, who knows that it is the people's votes at the ballot box that gives and holds him in his position; as an opponent of the measure admits "free lumber will give the people cheaper lumber."

The New York Lumber Trade Journal has this comment to make on the subject: "The tariff question is a hard one to adjust satisfactorily to all interested, so far as lumber is concerned. The Saginaw River mill-owners have been building their hopes on receiving from 125,000,000 to 150,000,000 feet of logs from Canada during the towing season of 1892; and now the outcry for an increased tax on Canadian lumber, if it should prove successful, will just about place the Saginaw river lumbermen "between the devil and the deep sea," to use a common expression, as it will be met by the Canadians with an increased export duty on logs to at least the proposed increased tariff on Canadian lumber, which will result in an increased cost of \$1 per thousand on all the logs towed across the lakes to the Saginaw Valley mills, which, it will be readily perceived,

will make the question of Canadian competition about as broad as it is long to the valley lumbermen, who, two years ago, cried out lustily and used all their influence for the present arrangement in the McKinley tariff bill, which, if interfered with, and the Canadian log export duty increased in retaliation for any increased duty on Canadian lumber seeking the American market, will result in great loss and injustice to the Michigan lumbermen, who have invested in Canadian timber limits with the expectation of converting the timber into lumber at their mills on this side of the line."

Canadians are no ways perturbed and quietly and good-naturedly watch the on-to-Washington move.

LESSONS FOR LUMBERMEN.

IN THE ELI page of last month's LUMBERMAN we published an interview with Mr. Gibson Collinson, of Aberdeen, Ont., who had been in the city attending a meeting of creditors of Capel & Co., woodworkers, a firm that had managed to get into deep water. The meeting was adjourned for a fortnight to give Mr. Capel an opportunity to make a proposition to his creditors. The second meeting took place in the office of the assignee on the 12th of February. The insolvent himself was not present, being confined to the house by sickness, nor was Mr. Burland, whose special place it seemed to have been to look after the lumber department of the business.

The statement of the assignee showed the liabilities to be as follows: Toronto creditors \$1,868.55, due outside city \$3,697.44, preferred claims \$538.10, a total of \$6,104.09. The assets consisted of machinery and plant valued at \$4,071.00, book debts \$2,253.00, cash \$96.44, total \$6,420.49. It appeared to be shown by the assignee that the wood-working business itself was capable of earning a considerable nett profit per year. About a twelve month previous Mr. Capel had been influenced to add a lumber business to his regular business, placing the management in the hands of Mr. Burland, who was paid a stated salary per week, his expenses, and was to receive a commission on the lumber sales. A business of \$12,000 was done during the year, on which a loss of \$3,900 was made; a sum equal to one-third the gross sales. One instance will illustrate how the losses were made, for it was typical of others: a car of lumber was bought at \$8.50 per thousand, shipped to New York, and sold there at \$6 a thousand. Mr. Capel's statement is that he did not know until ten days before his trouble the hole he was digging for himself, or allowing some one else to dig. He had entrusted everything to Mr. Burland, and this was the result. His wood-working business had been sacrificed to an outside movement, and he was now compelled to seek the indulgence of his creditors.

When full explanations had been made the sympathy of the meeting was altogether with Mr. Capel, and when a proposition was made to pay fifty cents on the dollar cash, and fifty cents unsecured, without interest, in two years, it was unanimously accepted.

We have given more attention to this matter than, as a simple case of insolvency involving less than \$7,000, it actually merits. But it is a case not without certain practical lessons that it may be profitable to consider. Mr. Capel, we fancy, has by this time come to the conclusion that the advice, "cobble, stick to your last," is not always faulty. Others besides Mr. Capel have learned this after paying dearly for the experience: "the fools are not all dead yet," and there are others who might profit by the experience while there is opportunity. More erstwhile contractors than can be counted on the fingers of two hands would be richer and happier men to-day if they had "stuck to their last" and left speculative building and real estate ventures in this city alone.

Mr. Capel is not the first man who has made the mistake of staking his credit entirely on the managing capacity of another. It was not Mr. Burland's name nor influence throughout the country that enabled him to secure about \$12,000 worth of lumber from the Collinsons, Murphys and other lumbermen of the province. Mr. Capel's letter of credit, supported by a known good name, established the credit, which unfortunately carried with it \$4,000 of unpaid notes at the end of the year. We do not say it in a spirit of harshness, for we believe Mr. Capel was more sinned against than sinning, a victim of circumstances if you like, but the point needs to

be emphasized that a business man, in justice to his own good name, as well as for the protection of those from whom he seeks credit, cannot with impunity claim exemption from criticism on the ground that he "did not know." Mr. Capel, long before a year had passed over his head, should have known that the lumber that was being bought on his credit was being sold in nearly every case at a loss, and this being so, one end only could be the outcome. Careful personal supervision and an exact calculation of how one's ventures, especially new ventures, are realizing, is demanded of every man in these days of close margins and keen competition.

May we not preach a little at the lumbermen, who do not, as prudently as they might sometimes, deal out credit to those who come to buy their stocks. Credit is too cheap in the present day. In the case of Mr. Capel his standing was reported good, yet it could not have been as sound as reported, particularly after he had been a few months in the lumber business. It may not have been so easy to have discovered that there was a weakness in Capel's case. Our mercantile agencies are at times much "out" in their reports. We have a strong conviction, however, that if lumbermen exchanged confidences among each other more frequently than is usual, that they would get to learn how different men, to whom credit is being given, are getting along. We know that it is not an uncommon practice for a business man, when his credit is weakening, to commence to unload on a new man. Lumbermen associated together would be more likely to "catch on" to these practices than working isolated and alone as is unfortunately the case with the lumbermen of this country to-day.

Enough said: He that hath ears to hear, etc.

NOT SO.

THE Timber Trades Journal, of London, Eng., is disposed to chide Canadians after the following manner: "The practice of dishonoring drafts in Canada has grown considerably of late, very much to the annoyance and loss of the wholesale firms in Montreal and Toronto, who complain of the utter disregard shown by many of their country customers about the fulfilment of their obligations, the most annoying form of that disregard being that of allowing acceptances to be dishonored without any previous intimation to the drawer."

The fault with English criticism is that it is, as often as not, based on a wrong conception of the real situation. The Montreal Journal of Commerce very aptly remarks on this point: "The practice of 'dishonoring drafts' is one thing, 'allowing acceptances to be dishonored' is quite another affair. The custom so general in Canada of a creditor drawing at sight upon his debtors is very little known in England. A 'draft' in the old land means usually a draft drawn at sight, or at a few days, up to twenty-one, upon a London banker by a country bank. Irish produce merchants, however, draw on English retailers for shipments of butter, bacon and eggs. As to 'acceptances being dishonored without previous intimation to the drawer,' that is a wholly different matter. An acceptance is a legal obligation to pay a certain sum on a fixed date, it is offered to a banker for discount on that ground, he advances its face value less interest up to maturity because repayment is pledged on a fixed day. To disregard an obligation of that character is not only exceedingly unbusinesslike, it is dishonorable."

This other fact is to be noted that the business men of Canada are to-day more scrupulous and careful in the financial management of their business than perhaps at any other time in the commercial history of the country.

English newspapers, and commercial journals in particular, should know their ground well before making statements that give a prejudicial coloring to the commerce of any land. We will excuse them when they get a few thousand miles astray in describing the geographical lay of some of our towns and cities, or when they turn historical matters wrong side foremost, sometimes, as the Saturday Review did not long since in discussing a Canadian topic, but we must hold them to John Bull exactness when they touch any point so important as the credit of the individual Canadian.

LESS than fifty persons attended the Washington convention of lumbermen called to protest against free lumber.

EDITORIAL NOTES

MR. IVES, member in the House of Commons for Richmond, Que., has given notice of a motion calling for the re-imposition of duties on saw-logs. Mr. Ives is one of the members who had expected to have been made a Cabinet minister in the recent re-construction, but his ambitions were not met, and rumor says that he has soured on the Government. Of course his present motion, if successful, would be a reversion of the legislation of the late Premier.

THE following reference to woods and forests is found in the Speech from the Throne delivered at the opening of the Ontario Legislature: Notwithstanding the decreased output of timber and saw-logs last winter, the revenue from woods and forests for the year 1891 was in excess of the estimate. The receipts on account of Crown lands sales were also larger than anticipated. Owing to the exceptional drought in the spring and early part of the summer of last year, forest fires were unusually numerous and extensive. By means of the system of fire-ranging adopted some years ago these fires were in some instances entirely extinguished at an early stage, and in others confined to limited areas. The prompt information conveyed to the Crown Lands Department through this service greatly facilitated the work of the department in dealing with the injured timber, and about one hundred million feet of pine in unlicensed territory through which fires had passed were, the latter part of the year, disposed of at good prices.

MR. MARTER, M.P.P. for Muskoka, has moved in the Ontario Legislature, now in session, for an address to His Honor the Lieutenant-Governor, praying that he will cause to be laid before the House a return showing: 1. The quantity of pine in unlicensed territory disposed of since last session. 2. The persons to whom the same was sold, and the quantity sold to each of such persons. 3. The prices at which each sale was effected. 4. The terms and conditions of the sales. 5. The purchase money paid, and the amount, if any, remaining unpaid, giving the name of each purchaser any part of whose purchase money is paid, and the amount unpaid by him. 6. Copies of the orders-in-Council authorizing the sales, and the reports and other material on which the same were leased. Mr. Hardy said that there was no reason why a return should not be brought down. He explained that no other timber but pine had been disposed of, and that the money had been paid in the same manner as timber dues. In the case of timber cut this winter, the bonus and dues would be paid next September.

THE lumbermen of British Columbia are asking why Douglas fir, which grows in large quantities in that province, should not come under the regulations of the McKinley Bill fixing the tariff on certain kinds of lumber at one dollar per thousand feet, but not including Douglas fir. This is just one of the ways the McKinley Bill is framed. Spruce, which is an important product of the Maritime provinces, comes under the same regulation, and so with our hardwoods. There is no question that the measure is in this and not a few other respects jug-handled, but whether just now, as tariff propositions are viewed by the United States government, any relief can be secured, is exceedingly problematical—unless it should come through the Bryan free lumber bill. If this cannot be obtained then the British Columbians ask that our government impose a duty of two dollars per thousand on pitch pine from the Southern States, which is now admitted free, and is very similar in many respects to the fir of British Columbia, and is largely used for car sills and other purposes requiring timber of large dimensions. One impost would, it is argued, help to offset the other. But as this would also lead to a disturbance of tariff relations between the two countries, it is likely our Government would move with a large measure of caution.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

DISCUSSION continues to gather around the question of the possible future of lumber in this State. How long will our timber supplies last? Are we drawing near the close of our best lumber days? These and kindred questions are frequently asked, and, as I have pointed out in former letters, are variously answered by our people here. In a recent letter I gave the names of a number of large lumber firms that are moving out of the State, a circumstance that has given color to the view that Michigan has already seen its best days in lumber. My only apology for referring again to this subject is found in the fact that Canadian lumbermen are necessarily interested in the lumber conditions of this State, and contrawise our lumbermen are considerably interested in your lumber affairs.

Mr. J. W. Park, one of the oldest professional lumbermen in the state, recently unbosomed himself on the question to a reporter of the daily press. His reference is specially to the Muskegon river, which he knows well. Some of his observations on past and present methods of cutting timber will be found interesting. "It will take," he says, "twenty years to cut all the pine on the river. Of course most of what's left will be cut within three years. The Muskegon mills will be through at the end of that time; but there will be pine left and saw mills cutting it twenty years from now. It takes longer to cut a section of pine than it used to. It isn't butchered the way it was. The time isn't very far back when the smallest log to be seen in the Muskegon river was twenty inches in diameter at the smallest end. Now you see logs there that aren't so large around as a dude's cane. Anything big enough to season check goes. The band saw is having a great deal to do with the sawing of timber. It saves twenty per cent. over the circular. When you think of the number of millions of feet of lumber cut every year, you can form some idea of the amount saved. If the band saw had come into Michigan twenty years ago there would be thousands of acres of pine standing in Michigan where there is now nothing but scrub oak and blackberry bushes. It is strange that the band saw wasn't invented before. It is more closely modelled after the old upright saw than the circular is. It can be run even more safely and will cut away about as much lumber. The circular was easily devised, however, and as a timber slasher it has surpassed anything else ever invented or perhaps that could be invented. Michigan pine has been sadly slaughtered. Lumbermen couldn't see it at the time, but they see it now. They seemed to have the impression that the supply was inexhaustible, and everything that wasn't first-class went to the slab pit. Many of them wouldn't deign even to make lath of the slabs, and logs that wouldn't cut twenty feet were left in the woods. It wasn't worth while to make shingles or "shorts" of them. Lumbermen know better now, and everything that will make lumber, lath, shingles, pickets, matches or toothpicks is treasured with religious care."

We suppose that this whole question is one that only time itself will settle. There will always be those who will take a more hopeful view of the situation than others, and so long as timber is cut and mills are running the belief will be that these conditions will be further continuous. In the meantime not a few of our Michigan lumbermen are placing a certain proportion of their capital in other lumber States of the Union, and some in Canada.

BITS OF LUMBER.

Over 20,000,000 feet of logs have already been banked on Sugar River by the A. W. Wright Lumber Co.

The mills on White Lake in 1891 cut 24,785,000 feet of lumber, and 25,883,000 shingles, the smallest output for years.

J. F. Eddy, Sel. Eddy, Newell A. Eddy and C. A. Eddy have been in Canada on an inspection tour of their lumber and timber interests.

A gentleman supposed to be well posted on the situation, says that the most reliable estimate he can secure is that there will be only 100,000,000 feet of logs harvested on the Au Sable River this winter as against about 250,000,000 last season.

SAGINAW, MICH., Feb. 24, 1892.

PICA.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE opening months of the new year are usually barren of any marked activity in lumber circles, and this year is no exception. It is pleasing to note, however, that the outlook for the lumber trade in the near future is quite encouraging, and naturally gives buoyancy to the steps of our various lumber kings.

One of the leading lumbermen here estimates that fully two-thirds of the lumber cut at the mills for next season has been sold at rates about the same as last year. There is yet considerable stock on hand here waiting shipment, although it has all passed out of the hands of the manufacturers, unless in a few cases. In square timber there is being about 3,000,000 feet made this winter, as near as can be learned.

On the 5th of April about 100 square miles of limits belonging to the estate of the late David Moore will be offered at auction, all in the province of Ontario.

Mr. Wm. Burns, of the firm of Bronson & Weston, has returned home to Ottawa after an absence of eighteen months in the Upper Ottawa lumber district. He states that the firm took out 30,000 logs this winter on the DuMoine, employing over 200 men. This is considerably more than last year. Thomas Philbin's gang of thirty-five men at Bay Lake took out a champion lot of big timber. There was an average of thirty inches of snow in that section this winter, and everything is favorable for the "drive," which will commence about the 1st of May. Grippe was very prevalent among the men, one of whom died, and whose body was brought down by Mr. Burns as far as Rockcliffe, from where it will be shipped to his relations in Quebec province.

Referring to the charge that the late Quebec Government reduced by \$23,000 the account against Messrs. W. C. Edwards & Co. for timber dues in 1890-91, a leading lumber merchant is reported by the local press to have said that no special favor was shown to Messrs. Edwards & Co. in the matter, as the reduction was made in accordance with a settled rule. The original accounts were based upon the reports of forest rangers, which the lumbermen claimed were incorrect, and they demanded rebate on account of small logs, inferior logs, etc., and all the lumbering firms get the benefit of the reduction, including Messrs. James King, the Conservative M.P. for Megantic, Mr. John Bryson, ex-M.P., Messrs. Gilmour & Co., and other leading Conservatives. The rebate was but a small percentage of the account, and similar reductions have frequently been made for cause by the Ontario and Dominion Governments.

The addition to Buell, Orr & Hurdman's mill is rapidly nearing completion. The new machinery has almost all arrived, and the men are busy placing it in position. The tin-roofing of the building is now almost completed.

In Booth's mill the large pier upon which the new English gate saw shall be placed is finished, and men are now engaged boring the large stone block measuring eight feet in length, six in width and two and a-half in thickness on which the new saw will be placed. Other machinery is also being added to this mill, two twin saws having arrived yesterday.

Mr. L. Dubois, agent for the estate of D. Moore, on the Kippewa, yesterday shipped several teams up there in order to get out all the timber before spring.

OTTAWA, Feb. 26, 1892.

LITTLE CURRENT LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE following is a list of the principal firms operating near here this winter, with quantities of logs they are taking out: Howry & Sons, a Saginaw firm; limits on the Whitefish River; 30,000,000 feet; will be manufactured at Saginaw and Bay City, Michigan. McKee & Glover, jobbers for the Spanish River Lumber Company; 35,000,000 feet; limits on the Spanish River; will be manufactured at the company's mills at the mouth of the river. J. & T. Charlton & Co.; limits on Whitefish; 5,000,000 feet; will be manufactured at Tonawanda. J. & T. Conlon, 10,000,000 feet; limits near the Whitefish; will be manufactured at the company's mill's here. McKinnon & Walsh, operating on the Wikwimikong Indian Reserve, Manitoulin Island; 5,000,000; will be manufactured at the company's mills at this place.

The Cook Bros. Lumber Company at Serpent River are taking out large quantities, as well as several large firms on the Spanish River, including the Georgian Bay Lumber Company.

W. L. Herriman, of Lindsay, operating at Honora Bay, Manitoulin, is taking out, in addition to 1,000,000 feet of pine, 30,000 pieces of cedar, which will be cut into square timber and shingles at his mills at Honora. 50,000 cedar ties are also being taken out in the same vicinity.

Considerable lumbering is being done north of Killarney.

The timber on the Birch Island Reserve, mouth of the Whitefish, was sold on 8th February to J. & T. Conlon. \$6.50 per M. delivered on the bank is said to have been the price paid, not including bonus.

The oak on the Wikwimikong reserve was sold a few days ago to McKinnon & Walsh. \$8 per M. delivered on the bank is said to have been the price, exclusive of bonus.

Altogether prospects for the lumber business around here for the coming season are very promising, and especially for this place, as all the mills will be in operation.

LITTLE CURRENT, ONT., Feb. 27, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

LOCAL business has improved and promises to be very good this summer. The Brunette Mills started up full force on the 15th inst., and have plenty of orders on hand. The South American trade is also showing signs of improvement and several vessels are loading for those ports.

The Round Prairie Logging Co. have 350,000 feet banked at Armstrong, and are still busy cutting.

Mr. A. Charleson, who is engaged in locating the line of a proposed logging railway, for the McLaren-Ross Lumber Co., returned from Chilliwack a few days ago. The line will commence on the bank of the Fraser, a short distance east of Sumas Mountain, and run south seven miles to the company's immense claim. All the timber logged in these limits will be carried by rail to the Fraser, made into rafts and floated down to the mills. It is expected the work of construction will be commenced at an early date. The farmers in the neighborhood of the proposed line are all in favor of the scheme, and will assist it in every way. Three miles of steel rails have been ordered, and are due to arrive on the ship Argyle, which will reach port shortly.

PROOFS OF PROGRESS.

The large extension to the factory department of the B.C.M., T. & T. Co.'s mill is now almost completed, and will be ready for occupation in a few days. On the roof of the building, and also on the front end, very large sign boards, bearing the name of the company, are being erected. One sign is placed in such position that it can be seen and read from the steamers passing up and down the river. The company have a large quantity of new machinery on order from the east for this new wing, which, when in position, will greatly increase the manufacturing capacity of the establishment. In the upper part of the building drying frames are being built. This extra room and machinery will be the means of giving employment to a larger number of workmen than have hitherto been employed.

Not quite a year ago the ship Titan loaded a cargo of big timber and decking for the Geo. W. Bush & Sons Lumber Co., of Wilmington, Del., a firm which does a great deal of work for the United States navy. This cargo gave such good satisfaction that the sale of another cargo of dimension stuff for a similar purpose has been effected to that firm by the Hastings sawmill. The barque Mistletoe has been chartered to carry it, and she left Buenos Ayres about December 1st to load in Vancouver. The good qualities of the cargo of the Titan have been the subject of general remark among the lumbermen of the eastern United States. Regarding it the Chicago Northwestern Lumberman said: "Some political capital has been made by the Philadelphia papers in the shipment by the Hastings sawmill, of Vancouver, B.C., of a cargo of ship stuff to the Geo. W. Bush & Sons Lumber Co., the journals claiming that the reduction of the tariff made such a sale possible.

The Lumberman correspondent gained the information that the purchase from the British Columbia people was due to the excellence of their material as compared with Oregon and Washington sawmills, and was independent of the tariff reduction." The purchase of the second cargo is an undeniable testimony to the superiority of British Columbia Douglas fir.

SOME LUMBER STATISTICS.

There are fifty-seven sawmills built or under construction in this province. The timber leases cover 273,428 acres and yields a revenue of \$20,404 annually. During 1891 the cut of timber by all the mills was as follows:—

From Crown Lands.....	16,130,011 ft.
From timber leaseholds.....	33,765,137 ft.
From timber limits.....	15,974,355 ft.
From private property.....	17,238,832 ft.

Total..... \$3,108,335 feet

The revenue received from timber royalty was \$31,479. During 1891 twenty timber leases were issued, covering 51,112 acres and twenty-one timber cutting licenses, general.

DISPUTED METHODS OF MEASURING.

Among the provisions of the new Land Act, as introduced by the Chief Commissioner of Lands and Works in the Legislature, is one dealing with the method adopted in measuring (or "scaling," as it is technically called) logs cut on land held under leases from the Government. The rule of measurement now in use has been followed for several years. But representations having been made to the Land Department by some of the mill-owners that the method was unfair to them, a change has been proposed. It is claimed by competent mill-owners that the methods laid down in Doyle's and Scribner's rules, those largely followed in the past, give a result, as regards the amount of lumber obtainable from a log of a certain size, greater than it is possible to saw out of it. This circumstance leads to constant disputes between loggers and mill-owners over the quantity of lumber in booms of logs. The mill-owners propose a new method of calculation which they claim so closely approximates the real quantities as to be, for all practical purposes, correct. The measurement of a given number of logs of a certain size would, they admit, by the plan proposed by them, be less than by the methods followed at present. This, of course, is a reason for objection to it by the loggers, but the mill-owners propose to meet this by raising the price for logs sufficiently to leave matters as they are at present as regards the amount received by the loggers. It is altogether likely that the Government will take some steps to adjust the matter to the satisfaction of both parties.

H.G.R.

NEW WESTMINSTER, B.C., Feb. 20, 1892.

A SERIOUS QUESTION TO DECIDE.

THE average man likes a beer once in a while, and some men have become so accustomed to drinking beer that they will not get along without it. Ask one of these men to buy a technical paper, and they will at once reply that they "can't afford it." Supposing, now, that a man, instead of buying a glass of beer, should buy one copy of a good paper. In that paper he finds something that enables him to improve his knowledge and get a better job that brings him fifty cents more a day. Which is the best investment? The glass of beer, that is sure to call for another one, when the first one is assimilated, or the knowledge that is worth directly \$150 per year, and indirectly many times as much, because of the ever-increasing possibilities of a still better job, as the stock of knowledge increases.

Suppose a man drinks two glasses of beer a day, true it is nobody's business if he chooses to do so, but look at it in a business way, and also suppose the ten cent piece thus spent every day to be spent for tools and a mechanical paper or two. It would enable the mechanic to have all the tools he wanted, also to keep up with the times and to improve his stock of knowledge until he is as second to none in his chosen profession.

Which supposition will it pay to follow? Shall we swallow the beer every day, or shall its price be put to some use that shall yield some benefit?

Suppose we think before choosing, as each man has the right to do as he pleases, but before deciding, will it not pay to use business principles a little in coming to the decision? Suppose we try it.

BRAZING BAND SAWS.

BY J. D. ALLEN.

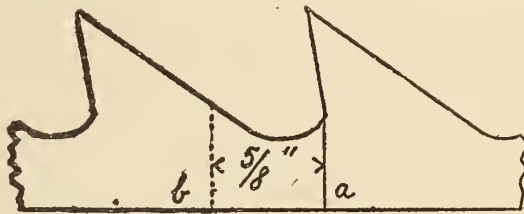
SOME new beginners in band saw filing (and, in fact, some of the old ones) have trouble in making the splice or braze in their saws, especially when they attempt as wide as ten-inch blades, and perhaps a few points on this subject may help some one out of the difficulty. I have in mind a filer who rarely ever makes a failure in brazing his splices, and his experience has been almost entirely with ten-inch saws, and I attribute his uniform success to his care in getting ready.

First, be very careful in the preparation of the muriate of zinc in the following manner: "Take of muriatic acid and pure water, equal parts (distilled water is the best, as there is no organic matter in it), put in a wide-mouthed bottle, and feed into it of clean strips of zinc as much as it will eat up. When it has ceased to eat the zinc, it is ready to drain off from the dregs of zinc, and to use. Now measure your saw, and if to be pieced out, make it the length of a new saw for the mill it is to be used on; if it is to be cut for a crack or for any other cause, make the length to match some other of your short saws, as I find it saves time in changing saws to have them in pairs as to length and width as much as possible. It is sometimes difficult to get a cold chisel to stand to cut raw steel, and I make the edge of the chisel slightly curved both ways—that is, the edge curved like this:—



and the bevel like this:—

Cut the ends of saw so that the laps will come in the throat of teeth, the end of the lap on log side at the bottom of the face of tooth, and that of the board side end five-eighths of an inch up the back of next tooth forward,



as shown in sketch, the full line A showing end of lap on log side, and dotted line B, end of lap on board side of saw.

Five-eighths of an inch is enough lap for any saw up to ten inches wide. It might appear that it makes no difference which way the ends are lapped, but my experience is that a lap nearly always comes loose or cracks on the log side first, if at all, and making the lap as here shown prevents the end from tearing up in the guides. File the bevel evenly and flat, and finish up with a rough (flat bastard) file across the blade up to, but not over, your line on top, and almost to an edge at the end. If your laps are lumpy or thick at one place on the end and thin at another, it is liable to make a "miss" of your braze, as the thick places will squeeze out all the solder, and, if it does happen to stick, it will not finish up to look well. When you have finished filing a lap, be careful to not touch the filed surface with your hands, but wrap up in clean paper until ready to put into the clamps. The brazing irons should be not less than five-eighths of an inch thick (three-quarters thick is better, if your clamp will take that thickness). two and one-quarter inches wide, and thirteen inches long, flat, and of even thickness, and should not be used more than twice without having them flatted, or better still, use new ones, and let the blacksmith use the old ones for some other purpose.

Take a strip of silver solder one-quarter of an inch longer than the length of the lap, and the same width, or maybe a little wider, holding it between thumb and finger, between a piece of sand-paper, draw it through another piece of sand-paper until it is perfectly clean and bright, change ends so that the whole surface may be cleaned, lay on a clean piece of paper until ready to put into the lap. Now "coke up" a quantity of coal in the forge, place the irons in the fire, and after the fire is long enough to heat them full length, let them remain in it

without any blowing, so they may heat evenly. While the irons are "soaking," put your lap into the brazing clamps, apply some of the muriate of zinc to the filed surfaces and also to the solder; place the solder between the laps, holding it between your thumb and finger on edge so as not to touch the surface. Let it project a little on both sides and on top; see that the back is against the stops, and in a straight line; clamps tightened down, the large clamp that holds the iron to the lap up, so you can slip the irons in easily. Take a look all over it, to see that all these details are right. By this time your irons are nearly or quite hot enough, and right here is where a good many failures are made

that is, in not getting the irons evenly hot enough. They must be a bright red for at least three inches longer than the lap. When in this condition, clean off the surfaces with an old file. Place on your lap, the ends projecting over the lap evenly on both sides, screw down the clamps solid, but not too tight, because, if too tight, it is liable to squeeze out all the solder when it melts, and when it is down do not move it. I have emphasized the fact that every thing about the lap must be kept clean and free from grease, as the solder will not take hold of a dirty or greasy surface. If you have been careful to observe all the details as here given, you can rest easy that you have got a good braze. If brass is used instead of silver solder, the irons must be almost a white heat.

WHAT INCOMPETENCE COSTS.

SAWMILLS can be and have been run without a single thoroughly competent man about them, but they never proved a phenomenal success. The difference in the cost of a competent and an incompetent operator rarely exceeds two dollars a day, but there are very few sawmill men who ever calculate the exact difference to themselves there is between the two in money value. Suppose it costs \$50 per day to run a mill averaging 20,000 feet daily. It puts the cost of manufacturing lumber at \$2.50 per 1,000 feet. Then suppose by paying a good sawyer \$2.00 extra per day, making the total cost \$52 per day, and that he cuts 22,000 feet per day, which is a low allowance of increase, the cost of manufacture is reduced 13 2/3 cents per 1,000 feet, or \$3.01 saved on the day's cut. In this case the owner makes \$1 per day profit on the investment of \$2, or if he is sawing by contract at \$2.50 per 1,000 feet, he receives \$3. But if the good sawyer increases the daily cut 20 per cent., which is not an unreasonable estimate, the cost of manufacture is reduced to about \$2.18, a clear profit of \$5.68 a day, or an increased receipt of \$8 on a contract price.

A very important man in a sawmill is the one who operates the gang edger. The position requires experience, good judgment and rapid decision. An incompetent man in this place can spoil timber to the value of many times his day's wages without its ever being discovered, unless he is closely watched.

It is hardly necessary to say that none but a thoroughly reliable man should be given charge of the boiler and engine. A mistake in this regard may involve the entire plant, to say nothing of life and limb. Whatever class of men may be placed in other positions, the three places above mentioned should be filled with the right sort, no matter what they cost. If the business will not justify employing such, it had better be abandoned.

BRITISH WOODLANDS.

TEN years ago the woodland surface of Great Britain was returned as covering 2,458,000 acres. In 1888 the acreage so occupied had risen to 2,561,000, and the measurements taken last year show a further advance to 2,695,000 acres. Of the 134,000 acres thus added to the approximate woodland area of Great Britain, 96,000 acres occur in England, 7,000 acres in Wales, and 31,000 acres in Scotland. The county of Hants, with 122,574 acres, possesses the largest woodland area in England. Sussex, with 122,073 acres, comes second, while the four counties of Hants, Sussex, Surrey, and Kent possess between them nearly a fourth of the English woods and plantations, showing over 11 per cent. of their surface thus occupied. In Scotland, Inverness has 169,000 acres of woodland, the largest area of woodland in Great Britain.

THE NEWS.

ONTARIO.

—B. A. Grant, lumber, Westmeath, has assigned.

—Mr. Greets, of Ottawa, has purchased the timber limits on Lake Keepawa. The price was \$109,000.

—D. McNaughton, of Guelph, has fitted up a new planing mill in the Royal City, which is doing good work.

—Joseph S. Wallis, of Port Carling, has replaced a 20 h.-p. engine with a 40 h.-p. engine. Other improvements have been made in the mill, and business is good.

—A bill to amend the Saw Logs Driving Act will be introduced in the Ontario Legislature, now in session, by Mr. Miscampbell, M. P. P., the well-known Midland lumberman.

—Vansickle & Bro., of Barrie, Ont., are getting out this winter 2,000,000 feet of timber, consisting of pine, basswood, soft elm, black and white ash and red oak, and expect to start their mill about the 1st of April.

—D. McMorris, of Guelph, has sold his sawmill, planing mill, and door and sash factory to Young & Bro., of Orangeville. Mr. McMorris intends to devote his attention entirely to building and contracting.

—The milling and lumber firm of Sadler, Dundas & Co., of Lindsay, intend merging their business interests into a joint stock company, limited, capital \$150,000. The headquarters of the new company will be at Lindsay.

—Recent purchasers of the Waterous band saw mill are W. S. Greensides, Mount Forest; Jones Bros., Warton; J. W. Buchanan, Perry Station; besides W. S. Loundes, Gaspé, and R. Thackery, Maryland, Que.

—The M. and O. Lumber Co., of Norman, intend running their mill to its utmost capacity the coming season. They have logs sufficient to produce 7,000,000 feet of lumber at the boom and contractors are taking out as many more this season. Cameron and Kennedy will run day and night.

—Financial troubles in building and kindred lines in Toronto for the month include the difficulties of Gall, Anderson & Co., referred to in our trade review, E. W. Powers, builder, contractor for the new building of the Athenæum Club, and John Douglas, an extensive real estate operator, with liabilities of \$250,000.

—Letters of administration have been granted in the estate of George Reid, an East Toronto lumber merchant, who died in December last. He left a house and lot in the village worth \$10,000, on which there is a mortgage for \$5,000, to the late Sir Adam Wilson. His interest in Reid & Co. is valued at \$25,000, and he left a personality of \$2,217.78.

—A statement just issued by the Government shows that during the past seven months the value of export of natural products and manufactures from Canada increased from \$59,911,749 to \$66,106,215 as compared with the corresponding period of 1890-91. The value of the exports of the products of the forest declined from \$16,661,599 to \$13,904,689.

—A lumbermen's association has been formed for the county of Grey. It will be known as the Lumber Manufacturers' Association of the county of Grey. John Harrison is president, and R. Stark sec.-treas. An invitation is given the manufacturers outside the county to attend the next meeting, which will be held on the 24th inst., when important trade matters will be discussed.

—At W. W. Carter's mill, at Cookston, 7,000 shingles were sawed on a Drake machine in one hour and a half. The following day it cut 30,000. The following constitute the crew of experts who made the record: Richard Stevens, filer; Canniff Kimmerly, sawyer; Wm. Markle, joiner; Francis Early, packer, and Warren Bissell, engineer. Drake has struck it well with this shingle machine.

—Peterboro' lays claim to a big tree lately cut in Peterboro' county, not far from Lakefield. The pine in question was five feet in diameter across the stump and was 180 feet in length. It was cut into twelve feet saw logs. In order to cut the lumber to advantage the sawyer had to quarter the logs. The timber was of excellent quality, as shown by the fact that the selling price was \$24 per thousand.

—The sailor's friend, Mr. Samuel Plimsoll, the famous member of Parliament, who has done so much toward protecting the mariner by showing up the abuses of the British merchant marine, has lately been giving evidence in London before the labor commission respecting certain evils connected with the lumber trade between Canada and Great Britain, one of the principal ones, in his opinion, being the immense deck loads of timber which are piled up, thereby, according to him, greatly endangering the safety of the vessel and the lives of the sailors. This subject is now under consideration by the Dominion Government.

—The Rathbun Co., of Deseronto, have bought last season's cut of lumber from Alex. McCallum, of Glenaldou Mills, Coe Hill, Ont. The stock, amounting to 800,000 feet, consists of basswood, black ash, maple, birch and pine; and as the mills are five miles from Coe Hill station, the company have now twenty-five teams hauling under the superintendence of Messrs. S. C. Thompson, Jos. Clairmont and John Amey, who are looking after the culling and hauling.

—The Casselman Lumber Co. have gone into liquidation. At a meeting of the creditors held in Ottawa the statement of assets and liabilities showed the liabilities to be about \$124,000, made up as follows: Bills payable, \$17,648; accounts \$26,250; secured liabilities, about \$80,000. The assets total nominally about \$143,000, made up of lands covered by mortgage and logs, and lumber covered by pledges, and other liens, \$11,000; store stock, etc., etc., \$33,000.

—Mr. S. C. Smith, proprietor of the sawmill at Vernon, will shortly move his mill down to the arm of the lake, where he has obtained a two-acre site from the Okanagan Land and Development Co. Its place in Vernon will be taken by a large sash and door factory, which Mr. Smith intends to build near his present mill site; the situation on Long Lake Creek, where he intended to erect it, being found unsuitable on account of the grade of the S. & O. He is now erecting a dry kiln, and has most of the machinery for the factory on hand.

—The lumber trade in the Port Arthur district is reported to be looking up. Large contracts have been let by the Canadian Pacific company for ties, which are being taken out between here and Rat Portage. The trade in cedar for paving blocks, fence posts, telegraph poles, ties, piles, and as square timber for bridges and culvert work is large and unreserved. No less than three firms have camps on the line of the Port Arthur, Duluth and Western Railway, which are expected to cut 8,000,000 feet of pine, which will be sawn in the district, for the trade of Manitoba and the Territories.

—Mr. J. A. Ouimet, Minister of Public Works, has been interviewed by a deputation of lumbermen made up of Messrs. A. F. Marsh, barrister, Toronto, representing the Spanish River Lumber Co., and D. L. White, of the Saginaw Salt and Lumber Co., who were accompanied by Messrs. Tyrwhitt, Masson, Fairbairn, Ferguson (Leeds), Madill and Northrup, members of the House of Commons. They asked for a reduction of tolls on the slides on the Spanish River in Algoma. The lumbermen are working under a provincial charter on the Sable River, which is under the control of the Ontario Government, and under a Dominion license on the Spanish River, which, being navigable, is under federal control. The firms represented were Messrs. Sibley & Barringer, the Saginaw Lumber Co., Tough & McConnell, Burton & Bro., Beck & Co., the Cheboygan Lumber Co., Cook & Bros. Lumber Co., the William Thompson Lumber Co. and James Hagar. These firms are said to represent several millions of United States capital invested in lumbering. Mr. Ouimet promised the deputation that its representations should have the best consideration of the Government.

QUEBEC.

—The Harbor Commissioners of Montreal have awarded the contract for 300 boxes for dredging and 50 construction cars to the Rathbun Company, Deseronto, Ont. The contract for the pile-driving engine and boiler was awarded to John Doty Engine Company, Toronto.

—The extensive and valuable estate on the St. Maurice River, Quebec, of the late George Baptist Sons & Co., lumbermen, has been purchased by Alexander Baptist, of Three Rivers. That gentleman proposes erecting a large steam mill on the site of the old mill on Baptist Island, to be operated by July next.

—A big deal has been consummated between E. H. Lemay, of Montreal, and Messrs. Gillies & Bros., by which the former secures the entire output of the Braeside mills, in the Ottawa district, for the season of 1892. This will mean the handling of about 30,000,000 feet of lumber, and will involve \$450,000. Most of the lumber will be sold in England and South America.

NEW BRUNSWICK AND NOVA SCOTIA.

—Lea's wood-working factory at Moncton, N.B., has been burned. Loss \$20,000; insurance light.

—The price of lumber has fallen so in the West Indies that a St. Mary's Bay, N.S., lumber merchant intends to discharge his vessel which was almost ready for sea.

—John McDonald, a young lad, son of Donald McDonald, of Dunmore, South River, N.S., while attempting to make his way home from a lumbering camp through a recent snow storm fell over a bank and was buried in the snow, where he remained unconscious until some time through the night. Strange to say, he finally made his escape none the worse for his exposure.

—The Robb Engineering Co., of Amherst, N.S., are setting up one of their new automatic engines "Robb-Armstrong" pattern, for the Canada Electric Co., of the town.

—Advices from Nova Scotia state that Huntley and Epps have been doing some tall work with their rotary sawmill in the woods at Lakeland. They sawed 140,000 feet of lumber last week, an average of 23,333 feet a day. A report was recently published in several of the weekly papers that C. F. and F. R. Eaton had sold their timber land at Eatonville. The report was a little premature, for although they were making negotiations for the sale of their property at the time, they have since decided that they will not sell. They will not get out any logs this winter, but after this season they will cut about 5,000,000 feet a year.

—The lumber cut of the upper St. John River and its tributaries in New Brunswick is expected to reach 120 or perhaps 130 million feet. At any rate this is the estimate made in a special to the St. John Sun, after enquiry from reliable parties. Among the principal operators are the following: Dunn Bros., who will cut about 6,000,000 feet; Hale & Murchie, about 8,000,000 feet; Robert Connors, say 6,000,000 feet; John A. Morrison, who is putting in a large amount of cedar, about 5,000,000 feet; W. H. Cunliffs, about 5,000,000 feet; Nixon Bros., about 3,500,000 feet; Kilburn & McIntosh, probably 5,000,000 feet. In this estimate is not included the large amount of lumber cut on the Meduxnakik by F. Moore & Sons and A. H. Sawyer.

—A lumber case of some interest is before the courts at Digby, N.S. The plaintiff is one Hogan and the defendant Gates & Son. The plaintiff sues for the price of goods sold and claimed \$6,788; the defendants put in an offset amounting to \$7,259, thus claiming a balance from the plaintiff. The action was one for the price of timber and camping utensils, the plaintiff's case being that he and the defendants entered into an agreement that he should enter upon the lands of the defendants and cut timber and afterwards saw it at the mills of the defendants, paying fifty cents a thousand stumpage and \$4 a thousand for the use of the mill. In the fall of 1885 the plaintiff entered on defendants' lands and continued to operate there until the spring of 1888, during which time the defendants supplied him with provisions, etc., when the defendants sent men in and took charge of the camp and drive, and stated that if the plaintiff would leave everything as it was they would pay for it. The plaintiff followed that course, but was at length compelled to bring this suit. The defendants on the other hand claim now that the agreement was that the plaintiff should pay from \$1 to \$2 and upwards a thousand, stumpage, and fifty cents for the use of the mill, the lumber to be manufactured by them for the plaintiff, and the proceeds, if any, after paying all expenses to go to the plaintiff. The case has excited considerable comment among lumbermen and those engaged in the lumbering trade in the western countries, and the referee's report, which, under the order of reference, shall be filed by March 10, is awaited with keen interest.

BRITISH COLUMBIA.

—C. M. Banks, Detroit, is erecting a sawmill at Mission. Daily capacity 100,000 feet.

—Over a million feet of logs have been cut at the Sillovet River camp of the Brunette sawmills.

—Twelve new boilers for the Moodyville sawmill have been built by the Albion Iron Works, Victoria.

—The Round Prairie Logging Co. have cut and banked 250,000 logs at Brewer's mill, at Armstrong.

—Building operations are already beginning at Nelson. The prospects for a heavy summer's work are very promising.

—McLaren-Ross Lumber Co. has made preliminary survey of tramway line from its timber limits on Cultus Lake to Fraser River.

—The Royal Canadian Packing and Milling Company, Victoria, is building a sawmill and cannery on the Skeena River, which will be in operation very shortly.

—A party, composed principally of members of the Mississippi Valley Lumbermen's Association and their families, paid the province a visit the other day, being part of a trip which takes in the whole Pacific coast.

MANITOBA AND THE NORTHWEST.

—J. Y. Turner, lumber, Melita, has sold out to Campbell & Ferguson, and is moving to Carnduff.

—Martin & Young, lumber and builders, Cypress River, Man., are succeeded by Fred Young in furniture business.

—The timber of the Saskatchewan districts is said to be lighter than that further north, towards the Athabaska, where a very fair quality of spruce timber abounds. The construction of the Calgary and Edmonton Railway has opened up a magnificent stretch of country, which heretofore has been sparsely settled. Already a large number of ex-Dakotians have settled there.



—In 1891 Seattle used 6,630,000 feet of lumber. Tacoma consumed 9,515,552.

—Over 2,000,000 feet of logs have been received this winter by rail at C. C. Barker's mill, Bay City, Mich.

—The Crosby Lumber Co. have purchased 47,000 acres of timber land in Graham County, North Carolina.

—It is reported that H. W. Sage and Company's mill at West Bay City, Mich., will not start before July 1.

—Vast quantities of white oak are destroyed each year in the Southern States to make way for tobacco and cotton.

—Buffalo and Tonawanda's receipts for 1891 were 768,241,000. The receipts for 1890 were, in feet, 1,004,984,900.

—The British Secretary of State for War invites tenders for the supply of English and foreign timber during the current year.

—A new bill for the regulation of United States forestry interests is to be submitted to the present Congress now in session.

—Merrill & Ring's new mill at Duluth will be ready for operation early in the spring. The firm owns timber enough to keep the mill running ten years.

—Howard Watson, the well-known commission lumber dealer of St. Louis, sold in 1891 20,448,250 feet of lumber, 14,633,046 of which was yellow pine.

—Michigan lumbermen are buying considerable timber in Arkansas. One recent sale was 3,500 acres to Hovey, McCracken & Co., of Muskegon, Mich.

—The Jarry wood of Australia is hard and durable as oak. It is well adapted for panelling and carving, and is destined to be much in favour with church builders, owing to its rich deep mahogany color.

—Washington will spend \$65,000 on its State World's Fair building, and all the lumber and quarry material necessary for its construction will be donated by the lumbermen and quarrymen of the State.

—The amount of yellow pine received in New York during 1891 is given as 242,216,552 feet, being 302,851 feet less than the receipts for 1890. The falling off of receipts is not as large as was anticipated.

—The J. R. Davis Lumber Co. is running twelve camps on the head waters of the Chippewa, Mich. The company employs 450 men and it is estimated will pay out \$200,000 for the expense of the winter's work.

—A local paper calls Florida the best timbered State in the Union. Out of about 38,000,000 acres, only 3,000,000 are included in farms, the remainder, exclusive of the area covered by lakes and rivers, being covered with heavy forests.

—The manufacture of wood pulp has become one of the most important trades of Sweden. According to recent reports, that country has over 120 wood pulp factories, about half of which have been started during the last three years.

—Weather in the Duluth district is giving satisfaction to loggers. Hauling is being pushed at all speed and the half-way mark is well passed. It looks as if the winter would end with more logs banked than the loggers had generally expected when the season began.

—The latest and largest load record from the logging camps is from a Michigan camp, where a load of forty-four logs, scaling 15,400 feet was hauled three miles by one team. It is to be hoped that no logger will attempt to outdo this record. There is no economy and less humanity in thus overloading teams.

—The lumbermen of Wisconsin are not daunted by the absence of snow on which to haul their logs. Near La Crosse the loggers are using dynamite to break up the ice in the river, large blocks of which are hauled up to the roads, chopped up, spread in two narrow lines watered by the sprinkler, and frozen into a solid mass.

—The Everton Lumber Co., the mills of which are in the town of Santa Clara, Franklin county, N.Y., has exchanged with the State 25,000 acres of timber land in Hamilton county for 11,000 acres in Santa Clara and Duane, Franklin county. The Hamilton county lands were logged years ago, but are still covered with a fine growth of hardwood and some soft timber. The Franklin county lands are covered with virgin forests, and will afford a supply to the Everton mills for four years.

—A Chicago clergyman is said to be preaching practical temperance to the lumber yard men of that city by driving to the yards every day at noon with a wagon containing a cabinet organ and a tank of hot coffee. Music and coffee are furnished free. This proceeding cuts off a large "can" trade formerly enjoyed by the neighbouring saloons.

—The destruction of the pine timber by a small insect, which some call the pine weevil, will be almost total in some sections of Virginia. It is not confined to scrubby trees alone, but some of the best timber is going, and millions of feet will be dead in a short time. Much will be saved by steam sawmills, but there are not mills enough to save all.

—What is said to be the largest piece of white oak timber ever sawed to order and shipped to the New York market was received by Messrs. Roberts and Case, of 62 Broadway. The stick measured thirty inches square and fifty feet long, and contained 3,750 feet, board measure. The estimated weight by the railroad standard was 22,500 pounds. The trunk of the tree from which it came was three and a-half feet in diameter fifty feet from the ground. The stick will be used about a dredging machine.

—Forest vegetation is much richer in North America than in Europe, and comprises 412 species, of which 176 are native to the Atlantic region, 106 to the Pacific, ten are common to both, forty-six to the Rocky Mountain region, and seventy-four are tropical species near the coasts of Florida, as against 158 species in Europe. Six North American species of forest trees—the Judas tree, persimmon, hackberry, plane tree, hop hornbeam and chestnut—are also indigenous in Europe, all now growing there naturally south of the Alps.

—Logging operations in the northern portion of Minnesota are being pushed with all possible haste. On the southern edge of the timber territory work has been greatly hampered by excessively bad weather, and farther north considerable difficulty has been experienced because of bad roads. It is confidently believed that unless the mercury should take a drop very soon, the days for logging are numbered. Reports from northern Wisconsin indicate a similar condition of affairs there. Local lumbermen will require at least three weeks to reach their expected output.

—The Cloquet Lumber Co., of Cloquet, Minn., is engaged in hauling the material for a logging railroad that will ultimately become quite an important factor in the development of the vast timber and other resources of the northern part of the State. It will eventually reach the international boundary at the head of Lake of the Woods, and will tap the great timber district north of the Mesaba belt and lying between ranges four and twenty, west. In this area is estimated to be 15,000,000,000 feet of standing pine, all of which immense quantity is now unavailable for any mills except those on the Canadian Pacific. Some of the finest farming lands of the Northwest are also in this area, and they are being rapidly settled, over 500 homesteads having been taken there in the last three months.

—A Maine dispatch, dated from Portland, says: Business for the week has been fairly good; salesmen report an increased demand for frames, and prices are a little firmer. All the mills are sawing and all have plenty of orders. The retail trade, too, is unusually good, a large part of it being new work. One large concern has had to employ outside teams to do the extra carting. The two vessels loading for the River Plate prevent total stagnation in export trade. In the West India line shippers say that they cannot make anything on lumber at present prices, and therefore they will not send any. Off-shore freights are scarce and unremunerative, and coastwise business is light, with double the tonnage offering that is required. Large trains of box and hemlock boards have been shipped from Bangor.

—A despatch from Alpena, Mich., says: We have now had over three weeks' fine logging and every prospect of a full stock for all the mills that will run this season. Two mills have gone out of commission, which will reduce the output of Alpena 25,000,000 feet. Two more finish next summer. The balance have several years' stock. The attention of the mill owners is being turned to hardwood. Alger, Smith and Company, Comstock Brothers and F. W. Gilchrist will manufacture several millions of finest red oak, some ash, elm, basswood and American satin wood, all of which find ready sale. There is quite an activity in the lumber market, several purchasers arriving daily. Nearly all of the lumber wintered has changed hands at better than last fall's prices. Preparations are being made to tow Canada logs here. Our nearness to the Georgian Bay makes this one of the most available points for the manufacture of Canada lumber. A large amount of cedar posts, hemlock, tamarack and cedar ties arrive daily. It is estimated that over 2,000,000 pieces of cedar will be on the docks and in the river for summer shipment. The mills are being repaired, and soon the hum of the saw will take the place of the oppressive silence of a lumber town when manufacturing has ceased.



—Mr. C. H. Clark, of Burton Bros., Barre, was a visitor to the LUMBERMAN office this month.

—The LUMBERMAN received a call a few days ago from Jos. S. Wallis, the sawmill operator, of Port Carling, Ont.

—Mr. David MacLaren, a son of the late James MacLaren, who was president of the Bank of Ottawa, has been elected a director of that institution.

—Mr. J. R. Booth, of Ottawa, Ont., has presented each of the members of the champion hockey team a handsome gold medal as a memento of their victories this year.

—Hon. E. H. Bronson, M.P.P., the extensive Ottawa lumberman, has, on the advice of his physicians, gone to Hot Springs, N.C., for rest and recuperation. He will likely remain there for a month.

—The LUMBERMAN was pleased to have a call recently from Mr. James Dollar, of Bracebridge, Ont., the extensive lumber and shingle manufacturer. Mr. Dollar is mayor of this thriving northern town.

—H. Tudor White, a prominent business man and lumberman, of Windsor, Ont., died at his home in that place on the 23rd ult. Mr. White conducted a lumber and coal business at Windsor for more than twenty years, and was highly respected. He was sixty-three years of age.

—Jno. Webb, a well-known builder, of Hamilton, Ont., died a fortnight ago of la grippe. The deceased was born in Hythe, England, in 1842, and came to Hamilton in 1871, since which time he has carried on the building business there. He was a prominent mason.

—Mr. Alex. Fraser, of Westmeath, Ont., is on a business trip to Great Britain. Mr. Fraser is an extensive Canadian operator doing a large business in waney and square board pine timber. He has appointed Messrs. A. F. and D. Mackay, Canada Dock, Liverpool, agents for England and Ireland (London excepted).

—Henry C. Christopher, vice-president of the Clarkson-Christopher Lumber Co., of St. Louis, Mo., and one of the oldest and best known lumbermen in that city, died suddenly on the 29th ult. Mr. Christopher was born in Washington County, Mo., in 1829, and had been engaged in the lumber business about twenty years.

—John B. Drewry, lumber dealer, died at his residence in this city on the 1st inst., at the age of fifty-eight. He was ill only a few days. Deceased was born at Cobourg, March 18, 1833. He lived a number of years in Oswego, where he carried on an extensive wholesale lumber business. After living a few years in Napanee he came to Toronto about a year and a-half ago. He leaves a widow, one daughter and five sons.

—Charles H. Waterous, senior partner of the Waterous Engine Works Co., died at his home in Brantford, Ont., on the 10th ult. He was born in Vermont and came to Brantford in 1848. He at first managed the machine shop of Mr. Van Brocklin, but in 1855 bought out his employer, and from that time until 1877 had the concern under his direct supervision. The business assumed large proportions, and in 1877 it was formed into a company, the sons of deceased sharing the control with him. Mr. Waterous was born in 1814, and was therefore 78 years of age at the time of his death. He was married in 1839. Mrs. Waterous and one son pre-deceased him. There are six children now living, J. E. Waterous, Ald. C. H. Waterous, David Waterous, of Brantford; Mrs. Agnew, Montreal, and Fred and Frank, who are connected with the branch works at St. Paul, Minn.

—Mr. Gordon C. Edwards, who has been connected with the firm of W. C. Edwards & Co., of Rockland, for three years, and the Canada Lumber Co., of Carleton Place for four years, has been admitted as a partner into the Ottawa Lumber Co., of Ottawa, in which firm he now occupies an active position. Mr. Edwards is a son of Mr. John Edwards, of Ottawa, who retired from active business in 1888 but who is one of the owners of the above-named companies, and nephew of Mr. W. C. Edwards, of W. C. Edwards & Co., and A. H. Edwards, managing director of the Canada Lumber Co. Mr. Edwards was made a director of the Canada Lumber Co. in 1891 and a director of the Capital Planing Co., of Ottawa, in the same year, in both of which companies he still controls an interest. We take much pleasure in tendering to him our best wishes in his new capacity, and hope that the Ottawa Lumber Co. shall meet with even greater success in the future than it has done in the past.

TRADE REVIEW.

Office of CANADA LUMBERMAN, 1 Feb. 29, 1892. 1

THE GENERAL SURVEY.

THE quietness that is peculiar to February in every branch of trade has held complete control of the lumber trade during the month. Things have been jogging along in an easy-going sort of way, so far as the city trade is concerned, dealers waiting to see how business will open out with the opening of spring. It is no ways likely, outside of the public works now under construction and the larger mercantile concerns that are engaged, or may engage, in building operations, that trade will be over brisk. The opinion grows with the experience of the months that there is no call just now for general house-building, so that for a few years, at the shortest, the speculative builder must seek other fields, or a change of vocation. The local situation has been comparatively free from financial disturbances until the close of the month when the announcement was made that Gall, Anderson & Co., of the city, builders and lumbermen, had been obliged to seek relief from their creditors. The liabilities are estimated at \$75,000, and the assets are assessed at a nominal value of \$110,000, leaving a surplus of \$35,000. The reason of the firm's present trouble is attributable to the fact that certain parties have recovered judgment on the covenants in certain mortgages on property held by the senior member of the firm, who had parted with the same some time ago, and owing to his inability to realize upon the property given to secure the claims, and the general depreciation of property held by them in the city, they have been compelled to consult their creditors. It is understood the Quebec bank is the largest creditor, secured. An extension of time will probably be granted.

Trade in the country districts during the month has been disturbed to considerable extent by the many bye-elections that have taken place. "Nothing but politics doing here" has not been an uncommon reply to the stock enquiry, "how is business?" We may expect, however, that very shortly a turn in matters will assert itself. There is likely to be a fair trade done in lumber this spring. Farmers have been putting off building in not a few cases where building was a necessity for years, because of the "hard times"; with the good harvest of the past fall they still held off, the season as a rule being well advanced before they had realized on their crops; this intended building will now be done in the spring.

Our review of trade in the several provinces of the Dominion is given below and so of the United States and foreign markets. From a large number of special reports that the LUMBERMAN has received from different parts of the province there is no question that the trade in Canadian lumber with the United States shows an unmistakable increase. This remark applies not only to pine, but also to hardwoods, which find a growing market across the border. We simply note the fact as it comes to us over the signatures of responsible firms "east, west, north and south," in answer to the plain question: "Is trade with the United States on the increase?" The individual reader may draw his own inference.

NEW BRUNSWICK.

The month has been one of stillness in the Maritime provinces. It is yet doubtful how logging operations will come out this season, the weather not having been as propitious for lumbering as was expected. With an improvement in the English market the hope is that an improved trade will soon be observable in lumber circles at this side.

QUEBEC.

There is little, if anything, to add to the very full review of Quebec trade that was given in the last issue of the LUMBERMAN. Realizing that the restrictions of the McKinley Bill against spruce constitute at least one of the difficulties that the timber trade of this province is obliged to fight, it is expected that the lumbermen and manufacturers interested in spruce and pulp will hold a meeting at an early day, probably in Montreal, when this matter will be fully gone into, and, if possible, some practical proposition to overcome the trouble planned.

MANITOBA.

The leading millmen are quite satisfied in their own minds that an increased trade in lumber over anything yet done in the provinces will be the record of the opening season. Building operations will be active among the farming population, the splendid harvest of the past season, the results from which will really be seen during the present year, more than in the past, placing them in position to build new barns and enlarge the old ones. The lumbermen will reap the benefit of these conditions.

BRITISH COLUMBIA.

The monthly letter of our British Columbia correspondent published in another column carries with it the impression that the outlook for the season's trade on the Coast is encouraging. Immediate trade is not over brisk, but this is not to be expected. The preparations being made both for export and home trade are on a scale that evidences confidence in the future. A proneness to cut prices on the coast, more particularly in bidding for local trade, is an evil, that unless early nipped, is very certain to ultimately lead to unhealthy consequences. At least this is the history of a like custom in other places, and we apprehend that results would hardly prove any different in British Columbia. To illustrate to the lumber trade in the other provinces of the Dominion where British Columbia lumber goes, in part at any rate, we append here a table of shipments of the Moodyville Sawmill Co., (Ltd.), for the year 1891:—

Table with columns: Shipments by Destination, Vessels, Tons, Rough, Dress'd, Feet Pick'd, Laths. Lists various destinations like Coronel, Chili, Shanghai, China, etc., and corresponding vessel names and quantities.

UNITED STATES.

A careful scrutiny of the markets of the United States tells quite distinctly of a shortage of important stocks like pine at nearly all the leading lumber points. Our Albany report is that in the better grades of pine, especially, stocks are already running below the demand and dealers are asking themselves anxiously what will be the conditions two months later when the demand will be largely enhanced. This circumstance is showing itself in a stiffening of prices everywhere and in an advance in price at some points. From this view the opening season looks encouraging for the lumberman; light stocks and a good demand are favorable conditions. The weather in Michigan and Wisconsin has not been very helpful to logging, and we learn that "an early termination of hauling in the southern half of the Michigan and Wisconsin fields of operation, with some restriction of the season in the Upper Peninsula and Northern Wisconsin," are likely factors of the season's work. At some places the input will be completed early this month. There won't be a plentitude of logs, at the same time it is expected there will be enough, and possibly a few to spare. A healthy state of trade is the record

that comes from Philadelphia, where hardwoods are in urgent request.

FOREIGN.

For all of a year the foreign field for lumber has been beset with discouragements. Trade in Great Britain could hardly have been more sluggish. Australian trade experienced a general financial collapse. South America had burdens of no small dimensions to handle. Chili was kept busy with internal troubles, fightings within, in fact, and fightings without. So that at every outside point whatever else was abundant there was no business there. The spring of the new year approaches with not a few of these barriers to trade removed, or in course of removal. Lumber in Great Britain is undoubtedly looking up. The market may not prove as buoyant throughout the season as the more sanguine just now predict, but there will not be a like deadness in trade to that of a year ago. The turn has seemingly come in South America. The process of advancement to extended operations calling for large supplies of lumber will necessarily be slow, but it will be steady, and, we think, continuous. The Australian trade does not yet show any remarkable signs of revival, and it will hardly prove a fruitful field of export from this side of the water for some time. With Chili business is improving. The betterment of conditions at any of these points means a betterment of trade in Canadian lumber.

TORONTO, ONT.

TORONTO, Feb. 29, 1892.

Table titled 'CAR OR CARGO LOTS.' listing various lumber products like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc., with prices.

YARD QUOTATIONS.

Table listing yard quotations for various lumber products such as Mill cull boards and scantling, Shipping cull boards, Scantling and joist, etc., with prices.

MONTREAL, QUE.

MONTREAL, Feb. 29, 1892.

Table listing Montreal market prices for various lumber products like Pine, 1st qual., per M, Oak, Walnut, etc., with prices.

ST. JOHN, N.B.

ST. JOHN, Feb. 29, 1892.

Table listing St. John market prices for various lumber products like Spruce deals, Spruce boards, Pine, Oak, etc., with prices.

OTTAWA, ONT.

OTTAWA, Feb. 29, 1892.

Table listing lumber prices in Ottawa, Ontario, including Pine, 1st qual., per M, shipping culls, etc.

QUEBEC, QUE.

QUEBEC, Feb. 29, 1892.

Table listing lumber prices in Quebec, Quebec, including White Pine in the raft, Red Pine in the raft, etc.

Table listing lumber prices in Quebec, Quebec, including Measured off, according to average and quality.

Table listing lumber prices in Quebec, Quebec, including Oak-Michigan and Ohio, Elm.

Table listing lumber prices in Quebec, Quebec, including Ash, Birch.

Table listing lumber prices in Quebec, Quebec, including Tammarac.

Table listing lumber prices in Quebec, Quebec, including Staves.

Table listing lumber prices in Quebec, Quebec, including Merchantable Pipe, W. O. Puncheon.

Table listing lumber prices in Quebec, Quebec, including Deals.

Table listing lumber prices in Quebec, Quebec, including Bright, according to mill specification.

Table listing lumber prices in Quebec, Quebec, including Bright spruce, according to mill specification.

BOSTON, MASS.

BOSTON, MASS., Feb. 29.—There is very little of importance to be noted of lumber matters at the Hub. We would rather that there was greater activity prevalent here; but we are hoping for better things and the heart has not yet grown faint.

Table listing lumber prices in Boston, Massachusetts, including Western Pine by car load.

Table listing lumber prices in Boston, Massachusetts, including Eastern Pine—Cargo or Car Load.

Table listing lumber prices in Boston, Massachusetts, including Spruce by cargo.

Table listing lumber prices in Boston, Massachusetts, including Shingles.

OSWEGO, N.Y.

OSWEGO, N.Y., Feb. 29.—No occasion arising for complaint of trade at this point. Prices have shown something of an upward tendency and we have reason to anticipate an active season's trade.

Table listing lumber prices in Oswego, New York, including White Pine.

Table listing lumber prices in Oswego, New York, including Shingles.

Table listing lumber prices in Oswego, New York, including Shingles and Lath.

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Table listing lumber prices in Oswego, New York, including Shingles and Lath.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Mill run, mill culls out, Dressing and better, etc.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Feb. 29.—The scarcity of many of the better grades of pine lumber is a subject of no little comment here. We have to remember that we are only on the eve of the month of March. What will be the situation when navigation opens two months later?

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including White Pine.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Shingles.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Shingles.

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Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Shingles.

March winds, business is held by the contagion and keeps to close quarters. As regards trade of the month it has been slow. A few lots have been picked up for spring delivery, and local yards have bought some. Good lumber is firm with a fair inquiry at full prices.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Uppers, 1, 1 1/4 and 1 1/2.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Selects, 1 in.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Clear, 1/2 in.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Select, 1/2 in.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Timber, Joist and Scantling.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Shingles.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including Lath.

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THE PENCIL CEDAR INDUSTRY.

THE pencil cedar trade is developing very rapidly outside of the territory that formerly supplied the demand, notably Florida. Latterly very large purchases of cedar have been made in the south, and the quality of the wood is quite satisfactory to the foreign trade.

SAGINAW, MICH.

SAGINAW, MICH., Feb. 29.—The indications point to an early spring; we are hoping for it, for it cannot be gainsaid that so long as we remain closed in with winter's mantle, whether in the garb of snow or ice, or



ONE of the best known lumbermen that travels this province is Geo. Cormack, Sr., of Whitby, Ont. He has been engaged in the lumber business for over a quarter of a century and the biggest half of these years has been spent on the road in the interests of various lumber concerns having their headquarters in the neighborhood of the Georgian Bay. I have regretted to learn that of late years friend Cormack's health has not been as rugged as in years gone by and that latterly he has found it desirable to take life more leisurely. His place on the road is ably filled by his son George, who is a chip of the old block, and is energetically following up the business so successfully planned and developed for years by his worthy sire. I had the opportunity of a chat with the junior George a few days ago. As with the father of old he is constantly on the go; trade, he says, is good; and their shipments of lumber to the United States constantly on the increase.

* * * *

ELI has pleasure in introducing to LUMBERMAN readers this month Mr. Meaney, manager in this city for Robt. Thomson & Co. At not unfrequent intervals Mr. Meaney has talked to lumbermen through the medium of this page, and always with a purpose and to the point. He was born in St. Louis, Mo., in 1860, but removed to Toronto with his parents when quite a child. At the age of thirteen he started out to fight the battle of life, becoming message-boy in the offices of the old Northern railway. Part of his work was to deliver way-bills to the merchants of the city, and among these to many lumbermen, little thinking then that in later years he

would himself become active in lumber circles. He railroaded ten years, for two years occupying the position of travelling auditor. Give me a man who has spent a decade of years in active railway work, and put him into any other department of business, I care little where it is, and you have a hustler. In 1883 Mr. Meaney associated him-



self with the Hamilton office of Robt. Thomson & Co., throwing into his new vocation all the energy that we have intimated is born of railroading. His energy is reflected in the success of the Hamilton office, and in 1889, when the firm desired to establish a headquarters in this city, as well as Hamilton, Mr. Meaney was placed here to take charge of the work. I need not add that the business, under Mr. Meaney's management, has been highly successful. Without being posted in the arts of the phrenologist, a glance at the picture before us is sufficient to tell of a man of effort, energetic and capable in his undertakings, shrewd and far-seeing in his judgment of men, and possessed of a bonhomie of disposition that makes him a favorite with all who know him.

* * * *

"Our operations this winter," said Mr. G. L. Thompson (Walters & Co.), of Lindsay, Ont., "are in the burnt timber district on the Spanish River. We were one of the purchasers at the sale of the Ontario Government the past fall. Work is active all through that section. We will send our logs to Bay City, Mich. The amount of towing that is being done to the American side is in no way affecting the cut of the mills in the locality. The Spanish River Lumber Co. will send probably 15,000,000 to Michigan, but their mills at home will be kept as busy as ever. There will simply be an extra cut to cover the American shipments. With a fair knowledge of conditions in the Georgian Bay district, I must say

that I do not believe that the local mills are, to any extent worth mentioning, being forced to close down, because of the increased export of logs to the States. Midland is sometimes named as a town that is suffering from this cause. We have this to remember, that the immediate available territory for cutting around Midland is very light. To get at the timber the lumberman must go a considerable distance from the saw, and this means extra expense. For example: cost of towing logs from the mouth of the Spanish River to Bay City, Mich., is \$1.25; cost from same point to Midland, \$1.75, and attended with greater risk because of the treacherous character of the waters along these points. Lumbering will be brisk in the Georgian Bay territories the coming summer."

* * * *

It is the old story that doctors—and lumbermen—differ in their opinions. While our friends—some of them—in the Georgian Bay districts are complaining of the terrible waste of logs in that territory, owing to the large cut by United States firms; and, on the other hand, Mr. Huyett and his friends are crying out against the quantity of logs that are coming into his country from Canada, demoralizing the American lumber trade, we have Americans themselves going home from our lumber territories and saying there is no lumber worth anything over here at any rate. I have given you the opinion of some of these people on other occasions, and now we have Mr. O. E. Elsmore, of Saginaw, Mich., who has been on a trip to the Georgian Bay logging district telling the correspondent of the New York Lumber Trade Journal that "cutting timber there is no great bonanza. He says there is plenty of timber on the market there, but it is short bodied and scattered, the land having a rough and rocky surface, making logging operations both annoying and expensive, with stumpage ranging from \$1 to \$3 per thousand, with Crown charges for cutting and removal to be added." Then, what's all the ado about "American markets for American lumber"?

* * * *

From the town of Midland, Ont., hails the lumber firm of Peters & Cain. I had an interesting fifteen minutes conversation with Mr. Cain a few weeks ago. He tells me that operations in the woods in his section this winter are on a larger scale than a year ago. A considerable portion of the logs cut will be towed to the United States. I enquired if this would not affect the operations of the mills in Midland the coming summer. "As far as I know," said Mr. Cain, "the mills both in Midland and neighbouring points will enjoy a busy season's trade the coming summer. The abolition of the export duty has influenced American operators to make purchases of Canadian limits, and to tow much of the cut to their own mills in Saginaw, Bay City, and other convenient points in Michigan. But this is not lessening the cut of the mills here. The fact is that with the reduction of the duty on lumber to \$1 a thousand the demand from the States for Canadian lumber is on the increase, and we must put in a considerable cut to keep up with this demand. It is true that the mill of the Emery Lumber Co. in our town, which had been operated by Mr. Miscampbell, is closed down. But this is an isolated case. I do not think that the Emery people, when they first contracted with Mr. Miscampbell, anticipated doing any towing to speak of to Michigan. We must remember this, however, that the Michigan mills have the advantage over the Canadian millmen in being able to use the refuse of the cut in their salt works and thus reduce the expense of manufacturing. No doubt this fact influenced the Emery Co. I am certainly in favor of free trade in lumber."

* * * *

Among the callers of the month at the LUMBERMAN office was Mr. S. Burkholder, of Crawfordsville, Ind. His specialty is hardwood lumber, which he ships in large quantities to various parts of his own country, and also to Canada. He is one of your genial Hoosiers, who is after pointers wherever he goes, and is just as ready to reciprocate from out of his own fund of information. Mr. Burkholder says that he would not be surprised to see the Free Lumber Bill, now before Congress, become law. The majority of the House is no doubt in its favor. It might not pass the Senate so

readily, though over-strong opposition is not likely to be shown even there. What of the protests of the lumbermen, backed up by the big convention this month at Washington? "A good deal of that," Mr. Burkholder said, "is on paper. Some of our lumber journals have stirred up all the noise they know how, but the lumbermen of our country, who know the situation, are able to weigh the thing pretty correctly. As to the signatures to the petition, everyone knows how easy it is to get up a petition. It's the old story, 'anyone will sign a petition.' I met a friend the other day, and I remarked to him that his name was on the petition. 'Yes,' he replied, 'I was asked to sign it, and did so, though I do not know that I am opposed to free lumber.' It is true that one reading Mr. Huyett's side of the question only, if they stop there, may get worked up some on the question of "American markets for American lumber," but let the question be viewed in a broad spirit, as it has been by your Mr. Bertram, whose letters I read with interest, and fresh light is thrown on the subject. Certain lumber sections will oppose the bill with all their might, but the farmers of our country want free lumber, and this is the influence that is going to tell on Congress. For my part I am not afraid of freer commercial relations between the two countries, and the lumber industries are not in that crippled condition that the influx of Canadian timber is going to prove their ruin. We don't kill so easily."

* * * *

"He would rather sell lumber than eat his breakfast—almost" is the facetious but significant way an intimate friend has described Mr. Joseph Oliver, of the well-known and successful firm of Donogh & Oliver, Toronto. And some of his customers who have been charmed into buying what they did not want predict that his dying words will be: "Shall I send you that car of lumber?" It must be admitted that this is a fitting description of the man whose particular vocation calls him to sell goods to others in this age of keen competition in every business. Mr. Oliver is the man of the road for his firm and knows his business through and through. Let me give you a few particulars of this popular lumber representative, whom many of my readers know so well, and who will, I think, say that the engraver has given us a "speaking likeness" in the picture of him that adorns this paragraph. Mr. Oliver is the son of Irish parents,



and was born at Erin, in the county of Wellington, Ontario, some thirty-nine years ago. His parents removed to Toronto while he was very young, and all his life has been spent here. His education was received in the old Park public school. He served his time as an apprentice to the carpentering trade, and thus gained a knowledge of the uses of lum-

ber which has stood him in good stead since. About nineteen years ago he entered the employment of the late S. R. Briggs, the pioneer wholesale lumber dealer of Toronto, as city salesman. When Briggs retired in 1877 he, with Mr. T. S. McCool and Mr. John Donogh, formed the firm of Donogh, McCool & Oliver, and continued the business of S. R. Briggs with great success. In 1883 Mr. McCool withdrew and the firm of Donogh & Oliver continued, and still stands the storm. Mr. Oliver is a Presbyterian, a prominent Oddfellow, having filled some of the highest offices, never takes anything but "soft drinks," and does not use tobacco in any form; a good man to travel with, it has been suggested, when treats are in order. He takes some interest in public matters and sat for three years as school trustee for St. Thomas' ward. He calls himself a Reformer in politics, though he has not taken any very prominent part. No more popular arrival strikes any of our western towns than Joseph Oliver. He has travelled this ground and sold lumber for fifteen years—who don't know him? He could not give other than a kindly, hearty greeting to any he meets, and on the principle, I suppose, that like begets like, everyone is glad to see him, even though he never "lets up" on his favorite topic—lumber.

CORUNDUM WHEELS.

MOST saw users are familiar with corundum wheels as used on automatic saw sharpeners, and for similar purposes in planing mills and other wood-working establishments. It may interest them to know something about this material.

Corundum is a mineral found in a crystalline or granular state. The most familiar example is emery, so commonly used for grinding and polishing purposes, which is the granular form mixed with a large proportion of oxide of iron in its natural state, and which is found in more sections and in larger quantities than any other form of the mineral.

What is known as corundum is the other, or crystalline form, and is limited in quantity in most of the depositories. It includes in its most perfect and higher varieties such gems as the sapphire, the oriental ruby and the amethyst. Adamantine spar is the brown variety which is used in the mechanic arts, and which is seen in the form of wheels and whetstones. These are made by mixing the fine sharp crystals with an adhesive composition, which is pressed into moulds, where it hardens.

Next to the diamond, corundum is the hardest known mineral, and is the most effective material for cutting away or polishing hard metallic substances. For a long time it was found only in small quantities in "pockets," in various places, and scarcely a ton of it was ever on the market at once. But about a dozen years ago a vein of it was discovered in Macon county, North Carolina, about seven miles from the town of Franklin. This has been developed until the mine now practically supplies the world with the mineral; the output being in the neighborhood of 400 tons per year, and the demand is increasing. Owing to its exceeding hardness, this form of the mineral has largely superceded emery, except for fine polishing. There are many deposits of it in the region about this mine, but as the demand is limited and the one mine can easily supply it, there is no object in opening up others at present.

A PHENOMENAL RIVER.

THE St. Lawrence is a phenomenon among rivers. No other river is fed by such gigantic lakes: no other river is so independent of the elements. It despises alike rain, snow and sunshine. Ice and wind may be said to be the only things that affect its mighty flow. Sometimes almost as phenomenal as the St. Lawrence itself is the fact that there is so little generally known about it. Among all the great rivers of the world the St. Lawrence is the only absolutely floodless one. The St. Lawrence despises rain and sunshine. Its greatest variation caused by a drought or rain hardly ever exceeds a foot or fourteen inches. The cause of this almost everlasting sameness of volume is easily understood. The St. Lawrence is fed by the mightiest bodies of fresh water on earth. Vast as is the volume of water it pours into the ocean, anyone who has traversed all the immense lakes that feed it, and for the surplus waters of which it is the only channel to the sea, wonder that it is not even more gigantic than it is. Not one drop of the water of the five great lakes finds its way to the ocean save through this gigantic, extraordinary and wondrous beautiful river. No wonder that it should despise the rain and defy the sunshine.

WHAT THE PEOPLE SAY.

FEW subscriptions reach the LUMBERMAN office that are not accompanied with words of appreciation from our readers. Many thanks, kind friends. Our constant aim shall be to deserve the success that is so cordially attributed to this journal. We cull a few extracts from letters on our desk at this writing:—

A first-class paper. John M. Beyers, East Oro, Ont.
Send to no paper in the Dominion.—W. J. Mather & Co., Neejawa, Mass.

Well pleased with your paper both as regards the make-up and contents. Harlow & Kempston, Milton, N.S.

I did not intend to take the LUMBERMAN this year, but don't know how we can do without it. Enclosed find \$1.00 for renewal.—George M. Buzner, West Lake Ferry, N.S.

To our minds the CANADA LUMBERMAN is the best trade journal that we have seen. While one of the large American lumber journals are little more than market reports and advertising mediums, we always expect from the CANADA LUMBERMAN a few hours of interesting reading upon subjects of general instruction and entertainment to lumbermen, and we are not disappointed. While machinery, dollars and dry kilns are good in their place, we appreciate and are pleased to be able to convey to our good opinion of your successful efforts to make your literary contributions more than lumbermen.—J. T. Smith (Carpenter & Miller), Alexandria, Ont.

KIND WORDS FOR "THE LUMBERMAN."

WE have to thank the press of our own country and the United States for the many nice things they have said of the CANADA LUMBERMAN on the occasion of entering upon its thirteenth year of publication. Out of a multitude of kind words we select the following:—

The publisher recognizes the importance of capable editorial management, as much as he does the typographical and mechanical. Globe.

A creditable representative of the large commercial interests for which it speaks.—Empire.

From a journalistic view tells of careful and competent editorial management.—Mail.

Always taken a front position as a well-conducted exponent of trade interests.—World.

A first-class paper in its special line.—Trade Review, Montreal.

Decidedly one of the handsomest trade journals which come to our table.—Canadian Manufacturer.

From first page to the last a credit to the publisher. Patent Record, Ottawa.

A very handsomely printed paper.—Commercial, Winnipeg, Man.

Without doubt one of the best trade papers on our exchange list.—Commercial Journal, Vancouver, B.C.

No better craft paper in the Dominion.—Colonist, Winnipeg, Man.

One of the most esteemed and influential journals in the lumber trade.—Am. Paper Trade, New York.

Ably and industriously edited.—Southern Lumberman, Nashville, Tenn.

An able representative of the lumber interests of Canada.—Wood and Iron, San Francisco, Cal.

Evidently annexation is not necessary to make a success of the CANADA LUMBERMAN.—Sawmill Gazette, New York.

In both typographical appearance and editorial management perfection has been secured.—Watchman, Tiverton, Ont.

Should be in the hands of every wood-worker, manufacturer and millman.—Free Press, Shelburne, Ont.

At one dollar a year is one of the cheapest journals in America.—Review, Streetsville.

A faithful guardian of the lumberman's interests.—Herald, Port Arthur, Ont.

Most beautifully printed paper in the Dominion.—Examiner, Peterborough.

An exact compendium of all matters of interest to lumbermen; worth double the amount of subscription.—Mercury, Walkerton, Ont.

No industry in Canada is represented by such a well-conducted exponent.—Tribune, Deseronte, Ont.

A magazine of practical usefulness to all interested in the lumber business.—News, St. John, N.B.

Lumbermen of the Dominion may well feel proud of it.—Puget Sound Lumberman.

AN ANCIENT ROADWAY.

AN ancient roadway has been discovered at Marsilles, Illinois. It is from four to six feet below the surface, and constructed of stone underlaid by pounded sandstone and gravel. Each slab is about twelve feet long, from one to three feet wide, and about two inches thick. It proves that civilization had its hold here long before the advent of the Indians.

SHEEP RAISING IN DAKOTA

is a financial success, as is evidenced by the statements made by prominent Dakotians in a pamphlet just issued by the Chicago, Milwaukee and St. Paul Railway, copy of which will be sent free upon application to J. H. Hiland, General Freight Agent, Chicago, Ill., or to A. J. Taylor, Canadian Passenger Agent, 4 Palmer House Block, Toronto, Ont.

TRADE NOTES.

The Dodge Wood Split Pulley Co., of Toronto, have found it necessary to increase their output by fifty per cent. Their large works at Toronto Junction are now running to fullest capacity ten hours per day, and the company reports a large increase in sales and demand from every quarter. This company also calls the attention of millmen interested in rope-driving to a letter from one of their patrons, which appears in their advertisement on another page, and which speaks for itself.

The celebrated Grip Pulleys of the Waterous Co., of Brantford, Ont., are finding a large sale in all parts of the Dominion. Electricians are strong in their recommendation from the fact that "Grips always remain motionless when out of clutch." Another important feature is the ability to place these pulleys in pairs, saving one foot space on the line shaft to each pair of pulley. They possess special value in driving main circular, edger and special machines in sawmills. During the month the Waterous Co. have shipped to C. B. Wright & Co., of Hull, Que., three pairs of bevel gear "30x7" face wood and iron teeth fitted with grip attachments for throwing in and out of gear without disengaging cogs.

NEW FACTS ABOUT THE DAKOTAS

is the title of the latest illustrated pamphlet issued by the Chicago, Milwaukee & St. Paul R'y regarding those growing States, whose wonderful crops the past season have attracted the attention of the whole country. It is full of facts of special interest for all not satisfied with their present location. Send to A. J. Taylor, Canadian Passenger Agent, No. 4 Palmer House Block, Toronto, Ont., for a copy free of expense.



Many good devices for self oiling pulleys have been introduced, with different results. The trouble with self-oiling devices is that if a pulley will run successfully for one month without re-oiling, it is liable to be neglected for three, or until the oil is all worn out, then stick fast to the shaft or become badly cut, then condemned as worthless. In this manner many of the good intentions of the manufacturers are defeated by the neglect and carelessness of the operator.

When power is transmitted from a central engine by shafting, seldom more than 50 per cent. of the power created reaches the machines, so great is the friction of the best shafting that can be made, having the best care and with the best lubrication. For small places and short transmission this may be reduced to 15 per cent., but when extended to a greater distance it eventually comes to 50 per cent. loss, and as the establishment becomes larger the efficiency of transmission diminishes more and more. A line of shafting two miles long could not, it is estimated, be turned from one end; it would twist itself off before you could turn it.

It stands to reason that if we have an engine fairly well made, with all its parts in line and the valves properly set, it will do its work without a sign, save the sign of the exhaust and the "creep" of the belt parting from the back side of the drum. More frequently we meet with engines whose "chug, chug," as they laboriously pound away at their work, seems to be emulating pile-drivers. The influence steam admission has upon the action of an engine, as regards its noise, is well shown at times in some variable cut-off engines. Within a certain range it works noiselessly, but when additional load is put on and the cut-off changes, the engine pounds furiously. A popular remedy for pounding is keying up the connections all round, screwing down the binders on the shaft bearings, or settling up the shocks in the sides of them. In most cases this only makes a bad matter worse; for when an engine pounds from being out of line, the tighter the connections are the harder they bind, and the stiffer they are. Pounding costs money, for it is power thrown away. It is expensive to have a noisy engine, and disagreeable as well. What is easily cured should not be endured.

A sawmill boiler house recently caught fire and had the roof completely consumed. A number of boilers were under steam at the time the fire started, but were saved by the prompt action of the firemen, who pulled nearly all of the fire out of the furnace before they were obliged to leave the building. There were three gauges of water in the boilers when the firemen left. Two of the boilers had cords attached to the safety-valves, by which each valve could be raised from its seat. The remaining boiler had a chain attached to its valve. All three of the valves were opened and fastened in that position before the building was abandoned. The valves to which the cords were attached soon closed, owing to the cords burning away, but the chain held the other valve open. Probably the escape of the steam did considerable to save the boilers by deadening the fire immediately over them. After it was again possible to leave the building, there was nearly one gauge of water left in each of the boilers. They were in good shape and unharmed, although the fitting and steam connections were badly deranged. Every boiler should have a chain fitted to its valve for use in case of fire, but a much better way is to make the roof of the fire room fire-proof by building it of brick arches instead of wood. A few tons of channel iron and a sufficient quantity of iron rods combined with brick and mortar will form a roof which will not burn off.

W. N. McEACHREN & CO.

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Office: CANADA LIFE BUILDING

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Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WANTED FOR CASH

HALF A MILLION FEET OF ASH, MOSTLY one inch, some one-and-a-quarter and one-and-a-half inch Canada Ash, strictly firsts and seconds; must be of uniform color; also commons and one inch Elm, 1 and 2. State particulars as to stock on hand, dryness and lowest prices F.O.B. Montreal, Que.
Furthermore, Red Birch lumber, 1 and 2, all thicknesses, principally 1 and 1-4 inch; also Red Birch Squares, 5x5 and 5x6, ten feet and over long, free of splits, a knot now and then allowed.

Address all particulars to
P. O. BOX 2144,
NEW YORK,
N.Y.

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IN PROSPEROUS TOWN ON GEORGIAN Bay, eighty h.p. engine, modern improvements, capacity 25000 per day, rail and water conveniences, siding to lumber piles. Easy terms. Whole or half interest. Plenty of stock can be bought. Write for particulars. Lock Box 7, Hepworth station, Ont.

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FOR 1 1/2 AND 1 3/4 IN. BASSWOOD, ALL 12 FT. long, quality 1sts and 2nds, New York inspection, to be delivered here in canal boats next summer. Only responsible parties need apply, stating price delivered.

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SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways. 20 pair wheels and axles, all in good second-hand condition, very cheap.

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GOOD CANADIAN TIMBER LIMITS AND Georgian Bay saw logs. Address, BEN BIRD-SALL, Whitney Building, Detroit, Mich.

FOR SALE—25 H.P. STEAM SAWMILL, WITH power cider press and hoop-sawing outfit, with or without stock of lumber. Will be sold cheap. Address LOUIS LUBACH, lot 2, con. 4, Fullerton, Carlingford P.O., Perth Co., Ont.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

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TO CLOSE A PARTNERSHIP ESTATE

FOUR LIMITS IN THE NIPISSING DISTRICT, as follows:

Nos. 12 and 20, 36 miles in extent, traversed by west bay of Lake Nipissing.

Nos. 31 and 39, on Veuve River, 36 miles in extent, the C. P. R. running through the limits.

Estimated to contain 80,000,000 feet of merchantable timber, Pine, Spruce, etc.

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BERTH NO. 82, CONTAINING 36 SQUARE miles, situated on the north shore of Lake Huron, within about ten miles of Georgian Bay; well watered, and containing large quantity of pine timber. Has never been lumbered on. Apply to THE GEORGIAN BAY CONSOLIDATED LUMBER CO., Toronto.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

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SECOND HAND MACHINERY FOR SALE by the Canada Machinery and Supply Co., Brantford, Ont., Dealers in New and Second Hand Machinery and Mill Supplies:—

1 12 x 16 WATEROUS DOUBLE CUT-OFF ENGINE with Pickering governors.

1 12 x 16 BECKETT SLIDE VALVE ENGINE with Judson governors.

1 9 x 15 BECKETT ENGINE, SLIDE VALVE.

1 7 1/2 x 10 NORTHEY ENGINE WITH PICKERING governors.

1 5 1/2 x 9 HORIZONTAL SLIDE VALVE ENGINE.

2 25 H.P. TUBULAR BOILERS TO BRICK IN.

2 16 H.P. TUBULAR BOILERS TO BRICK IN.

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1 NORTHEY STEAM PUMP, 2 1/2 IN. SUCTION, 1 1/2 inch discharge.

1 WATEROUS SELF-ACTING SHINGLE MILL and Jointer.

1 UPRIGHT SWING SHINGLE MILL AND Jointer.

1 WATEROUS LATH MACHINE, THREE saws.

1 SET IRONS FOR TWO HEAD BLOCK SAW mill.

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1 POWER CORN SHELLER.

1 RE-SAW BAND SAW, 40 INCH WHEELS, with two 2 1/2 inch saws.

1 BLIND SLAT TENONER.

2 ONE-SIDE MOULDERS.

1 RIP-SAW TABLE.

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SHAFTINGS, HANGERS, PULLEYS, BELTING, etc., all sizes.

WRITE FOR PRICES FOR ANYTHING IN the line of Machinery and supplies to the Canada Machinery and Supply Co., Brantford, Ont. Works, Warerooms and Office, opposite the Market.

Rochester Bros. : : COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given. Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale. Communications confidential. References given.

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LUMBER AND LOG
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OVER
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Most complete book of its kind ever published. Gives measurement of all kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round timber; hints to lumber dealers; wood measure; speed of circular saws; care of saws; cordwood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stave and heading bolts, etc. Standard book throughout the United States and Canada. Get the new illustrated edition of 1882. Ask your bookseller for it. Sent post-paid for 35 cents.

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ROBIN & SADLER

Manufacturers : **LEATHER BELTING**

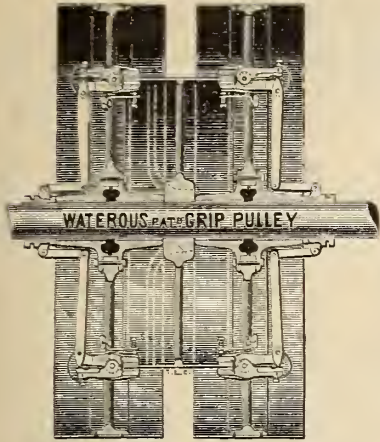
Dealers in **Lace Leather**

... COTTON AND GANDY BELTING

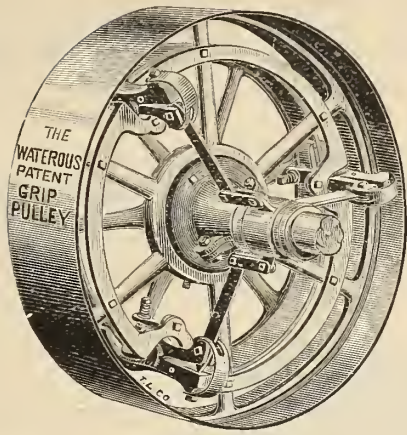
2,518, 2,520 and 2,522 Notre Dame Street

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129 Bay Street, TORONTO



Sectional View (2 pulleys on 1 grip ring).



A 3-Grip Pulley.

MADE WITH 2, 4, 6 or 8 grips, transmitting any power.

W. B. & S. ANGLIN, sawmill, Kingston, write 24th Feb., 1892: "The grip pulley still continues to give good satisfaction and is a good convenience, as we do not have to stop the rest of the mill or throw off belt when filing saw."

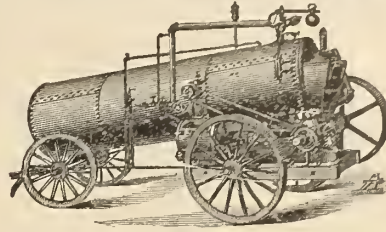
HALL & PRICE, sawmills, Quebec, write Feb. 24th, 1892: "We have been using your grip pulleys for some time, and they give every satisfaction. They are not liable to get out of order and do not require much attention in adjustment."

Our Motto:

Grips always motionless whert out of clutch.

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The MONARCH BOILER
(Patented) and HERCULES ENGINE



Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.

The 70 horse power can be taken over the roughest roads, or into the forest, and set up as easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

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many
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Agents Dodge Wood Split Pulley Co.,
Winnipeg, Man.

SOURIS, MAN., January 7th, 1892.

GENTLEMEN,---Your favor to hand and contents noted. The Rope Drive you supplied is giving us first-rate satisfaction ; better than we expected. We think it will be durable, and it has ample capacity to drive all the machinery in the elevator.

If any of your customers want anything of the kind, just tell them to come and see it work, which will be the best recommendation we can give it.

The elevator works first rate, and the engineer says that he does not know much difference in keeping up steam. We are glad to hear that you are keeping busy.

We are, yours truly,

Signed,

McCULLOCH & HERRIOT.

Dodge Wood Split Pulley Co., Toronto

FOR FURTHER INFORMATION
APPLY + + + + +

ESTABLISHED 1876

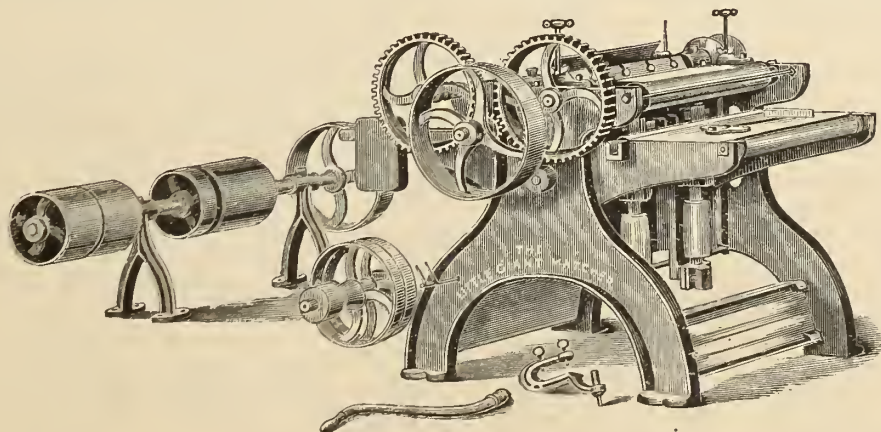
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- Lathes
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To Lumbermen, Dealers and Manufacturers



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A FIRE-PROOF DRY-KILN

IT SEASONS WITHOUT DESTROYING "LIFE"
OF WOOD

IT SEASONS WITHOUT WARPING OR CHECKING

IT SEASONS WITHOUT WASTE OF FUEL AND
LABOR



Outside View of the Andrews Progressive Kiln

IT SEASONS WITH REMARKABLE RAPIDITY

IT SEASONS WITHOUT "CASE HARDENING"

IT SEASONS WITHOUT DANGER FROM FIRE

OUR PROCESS DUPLICATES NATURE NO FAN! NO ENGINE!

THE SEASONING OF LUMBER.

Artificial Seasoning must be done Rapidly, without injury to the Stock, and with Economy of Fuel and Labor. The Andrews Kiln is the Perfect Lumber-Drier.

ITS remarkable efficiency depends upon its peculiar mode of applying heat to, and eliminating moisture from, the air used in drying. We use no costly fan, engine, or other device that requires constant attention, nor do we waste heat by a special chimney or door. The air circulates through the lumber and the moisture absorbed from it is extracted from the air by natural methods.

PRINCIPLES THAT APPLY:

Water can be taken out of air only by condensation. Air will hold in solution a certain amount of water without its being perceptible to sight or touch. This amount varies with the temperature of the air—the warmer the air is the more water it will receive. When the air has taken up all the water it can take, it is said to be "saturated."

When air cools it deposits its water in the form of cloud or fog, which, if cooled still more, becomes liquid water. The body of air thus deprived of moisture will again readily take up more moisture, and is therefore specially effective for drying purposes. The drying power of the air which enters a drying room is "the difference between the maximum saturation for the highest temperature of the air and its 'dew point' before it enters or becomes heated above initial temperature." The higher the temperature of a drying-room, the cheaper its contents can be dried. When this high temperature is used in connection with air that has been previously deprived of moisture, we have the maximum of efficiency. This very rapid seasoning without injury to the lumber is accomplished only by "The Andrews."

CONSTRUCTION AND OPERATION.

The Andrews Kiln has a hollow inner wall, reaching nearly to the ceiling, and a tight outer wall of sheet metal. The space between these two walls forms a down flue communicating at its foot with a large flue at the bottom of the kiln. Above the openings of the bottom flue are the steam coils which furnish the heat.

The lumber is placed upon cars outside the kiln and rolled in on tracks. The cars stand directly above the coils and close enough to get the advantage of the radiant heat. The air from the heaters passes up slowly through the lumber, taking up moisture from it, and then goes over the inner wall down the side flues to the bottom. On its way down, as it comes in contact with the sheet-metal outer wall, its moisture

condenses on the cool metal and trickles down. By means of small gutters on the inside of the metal walls near their foot, the water is conveyed out of the kiln. The air, having thus parted with much of its moisture, passes through the bottom flue to the coils to be heated again, its comparative dryness now making it more effective than common air for this purpose; yet this air is so tempered with moisture that no "dry heat" comes in contact with the lumber. This circulation goes on continuously. In a few hours after water ceases to flow from the gutters the lumber can be removed.

By this process the lumber is dried in a moist air at a high temperature, and this has been found to give wonderful results. The humidity of the air is so gradually, effectively, and finally rapidly lessened that warping and checking are reduced to a minimum. This continued use of the same body of air, without access of cold currents, saves a large part of the heat.

This kiln does its work perfectly EITHER IN SUMMER OR WINTER. During the warm weather the average temperature in the sun is 110 degrees at noon, and as we never use less than 150 degrees of heat in drying lumber, it will be seen at once that the steel outer wall will always be efficient as a condenser of the vapor in the kiln.

We dry on the CONTINUOUS SYSTEM, that is, putting the lumber in at one end of the kiln, green, and taking it out at the other end dry and properly seasoned. This admits of using cars or trucks, and the lumber can be handled more economically than if simply piled or "sticked" on the floor of the kiln. At each end of the kiln a platform can be built, if desired, the entire width of the kiln. The lumber is loaded upon cars at front end of the kiln. As each car is loaded it is rolled into the kiln and pushed forward. This is repeated until the kiln is filled with cars. When the cars have passed through the kiln and reached the delivering end they are ready to take out and unload upon the rear platform; or they can be rolled upon transfer cars for unloading elsewhere.

All kilns sold are furnished with AUTOMATIC FIRE SPRINKLERS, which do away with any suspicion of danger from fire, thereby lessening fire risk, a point that fire insurance companies have for a long time been trying to impress upon lumbermen and manufacturers of woodwork.

In other systems, when the engine or fan is stopped, both the source of heat and the circulation cease. With a kiln full of green lumber in the process of drying, this stoppage is often the cause of losing the entire contents from mould and mildew. In our kiln, as long as steam is allowed to pass from boiler to kiln, it will work even at a very low pressure. In the construction of the Andrews Kiln much labor and material are saved, as it is of the simplest form. No expensive foundation or separate house for engine, blower and heater is needed. We can guarantee a saving of money in the construction of these kilns over the cost of any built. We furnish all the heating apparatus, piping, iron material and rail.

In our contract we guarantee the seasoning of pine or oak in less time than an competing kiln that leaves the lumber in good condition.

The Andrews Process and Apparatus for Artificial Seasoning of Lumber will Save you Money in every one of the following items:

TIME : CAPITAL : INTEREST : INSURANCE : YARD ROOM : FREIGHT : MATERIAL : LABOR : EXPENSE

YOU CANNOT AFFORD TO BE WITHOUT IT

DOMINION DRY KILN COMPANY

95 CANADA LIFE BUILDING

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ALL KINDS OF PINE AND
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Especial Good Facilities for Shipping

HEMLOCK BILL STUFF OF EXCELLENT QUALITY
Also Manufacturers of
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WE MAKE A . . . SPECIALTY OF LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK
Quotations furnished on application

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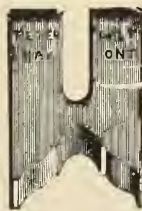
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Absolutely Fire-proof Deadens Noise
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About as Cheap as Wood or Brick
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TERRA COTTA FIRE-PROOFING

For use in Old and New Buildings

Gives Warmth in Winter; Coolness in Summer



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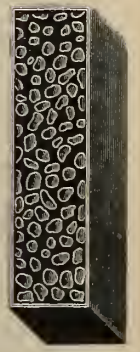
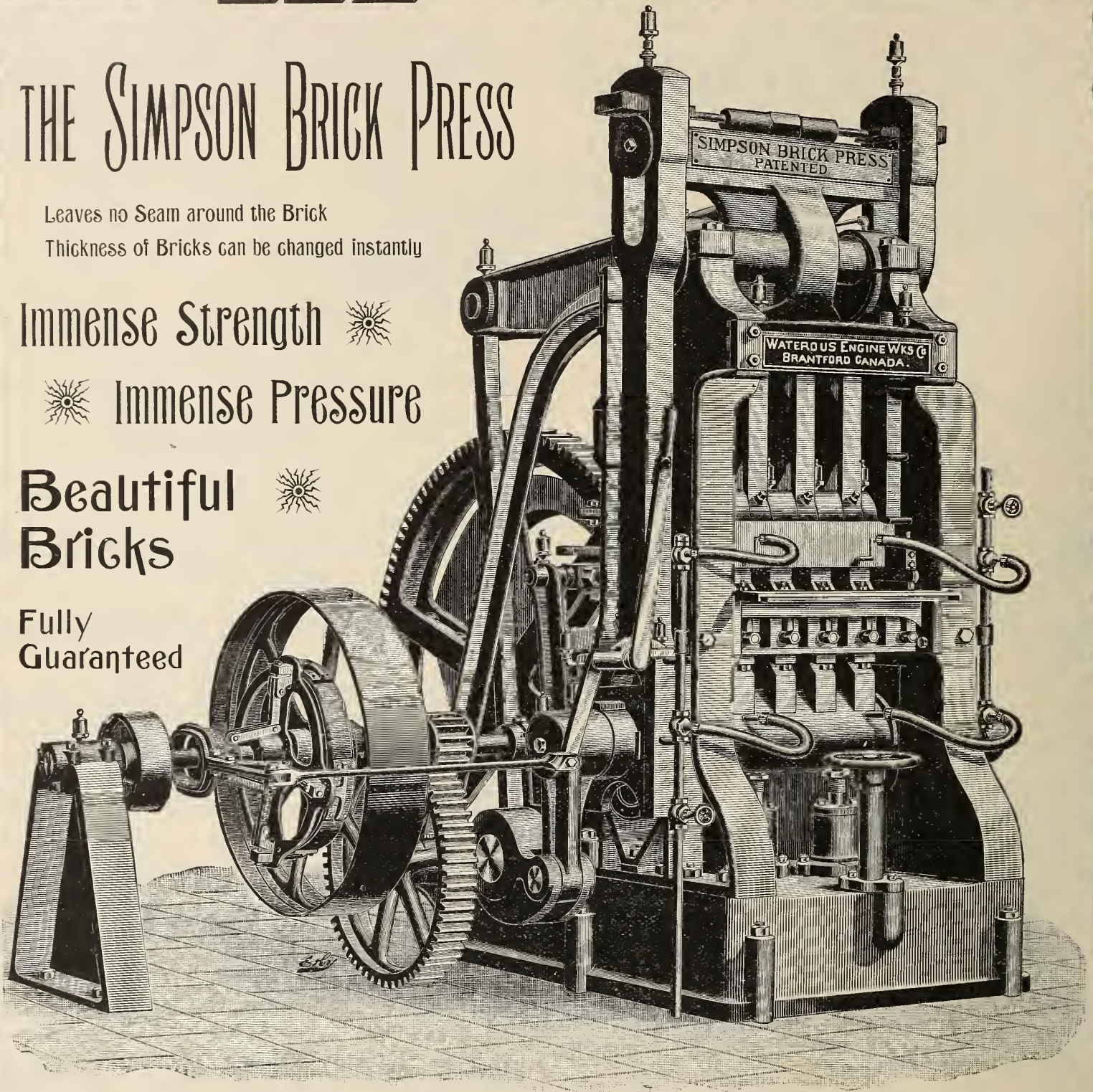
Leaves no Seam around the Brick
Thickness of Bricks can be changed instantly

Immense Strength 

 Immense Pressure

Beautiful 
Bricks

Fully
Guaranteed



Sawmill Owners

OFTEN have a fine deposit of clay or shale right at their door, and ALWAYS abundance of fuel with which to turn it into brick. Why not furnish building materials of brick as well as of wood? Plastic or mud process bricks are very generally made. Such a plant would probably not be a paying investment where the market is at a considerable distance. **THE DRY PRESS** process involves a very much larger and expensive plant, produces a beautiful brick—solid, heavy, compact, with perfect surface and edges—at the same or a less cost per thousand than the ordinary plastic process. These Brick bring to-day in the Toronto market \$18.00 to \$20.00 per thousand. Ordinary brick bring \$5.00 to \$7.00. Will not the difference pay freight and leave you a handsome profit? The Saginaw sawmillers make salt with their refuse—why cannot you make brick? Will it not pay you to look into this? Clay tested for intending purchasers FREE.

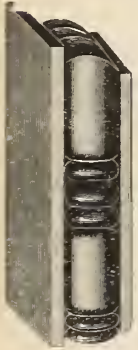
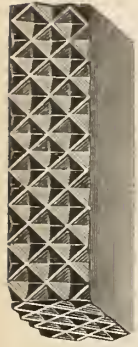
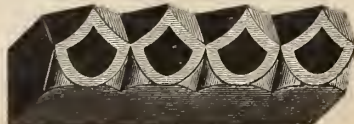
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71 Adelaide Street East

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Waterous Engine Works Co.

BRANTFORD, CAN.

HUGH CAMERON, Clay Expert, Agent



Dauntless Shingle and Heading Machine

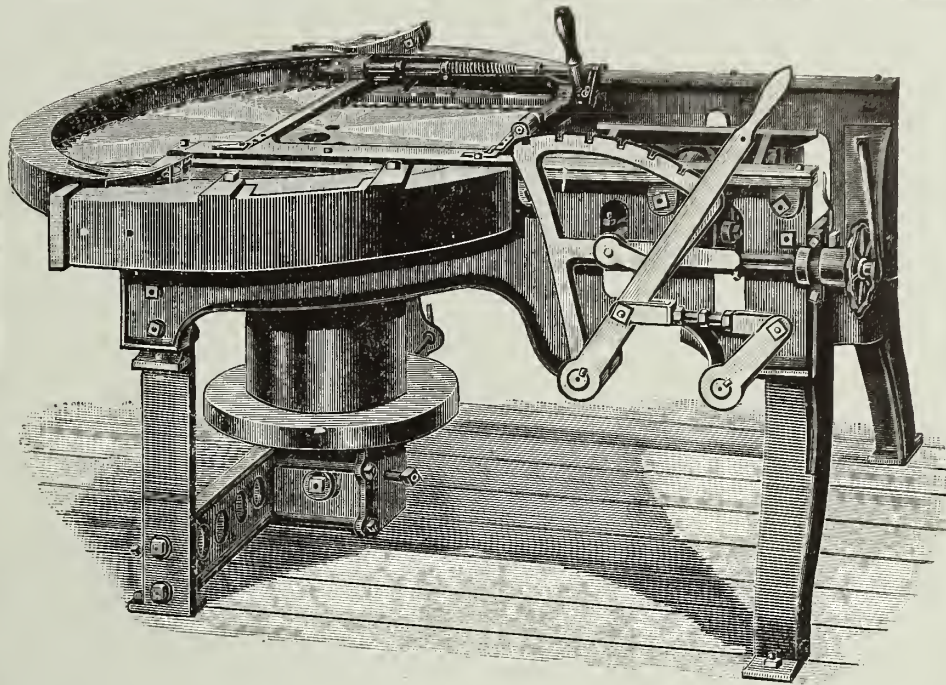
∴ WILL make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

... Is of Iron throughout, very heavy and rigid, strongly bolted and braced.

THE CARRIAGE

... Is very light and strong, made of forged Cast Steel Plate, running on steel ways or tracks. Will take in a block 18 inches wide and 19 inches long, adjustable for 16-inch or 18-inch shingles.



CAPACITY FROM 25,000 TO 50,000 PER DAY

Also Manufacturer of other kinds of . . .

Shingle Jointers

Both Self-acting and Hand-feed

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Packing Boxes

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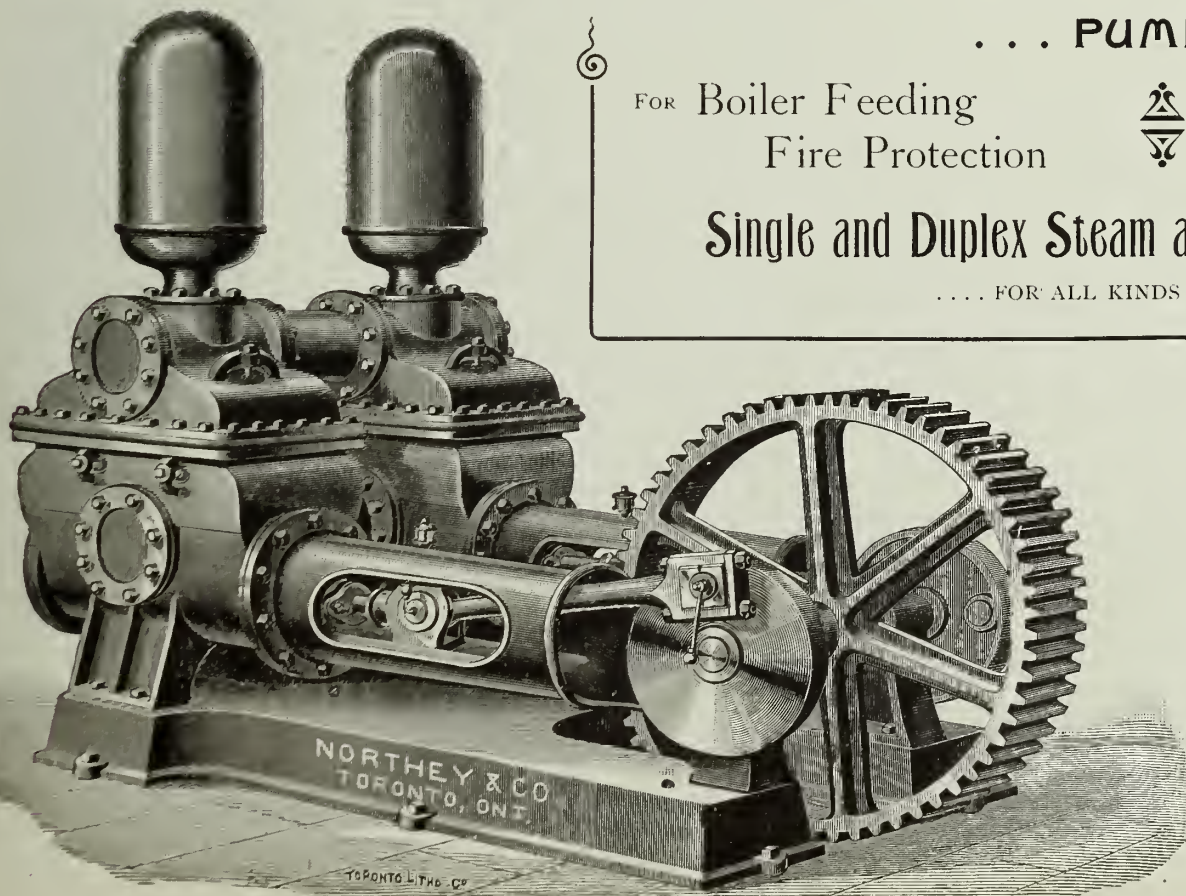
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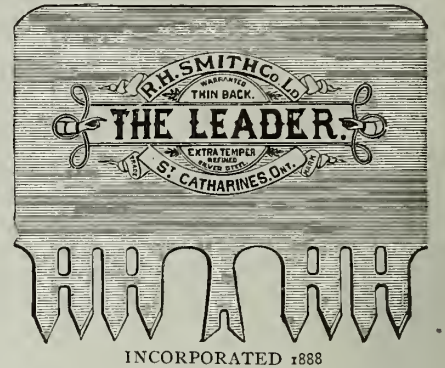
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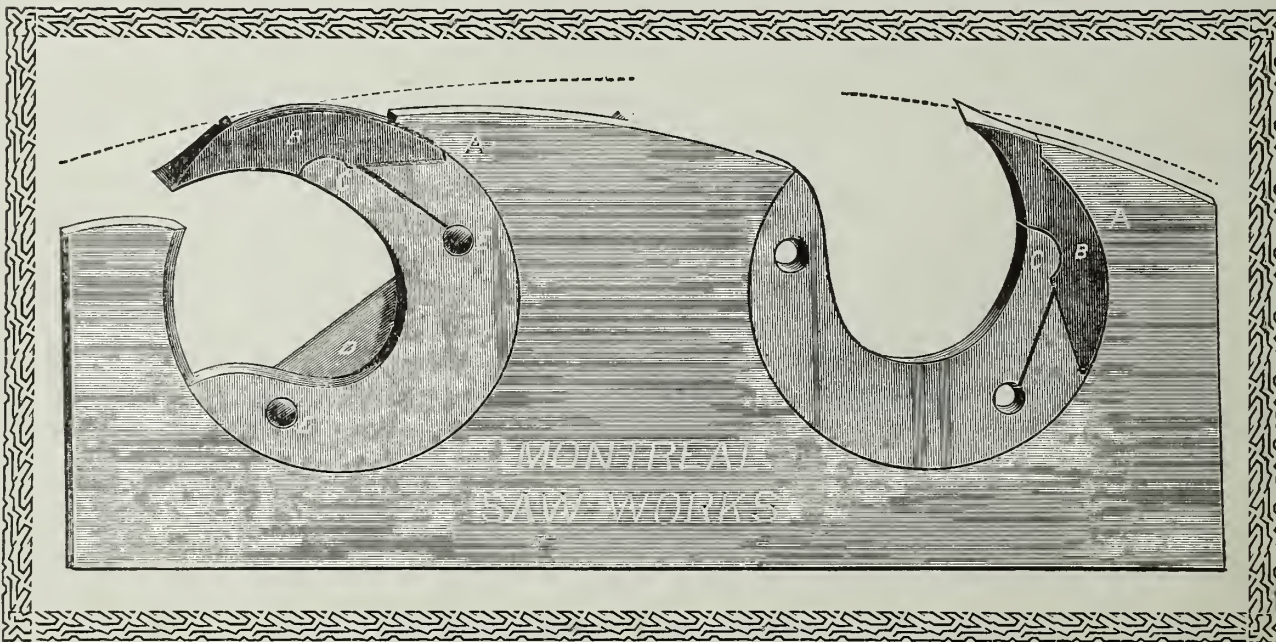
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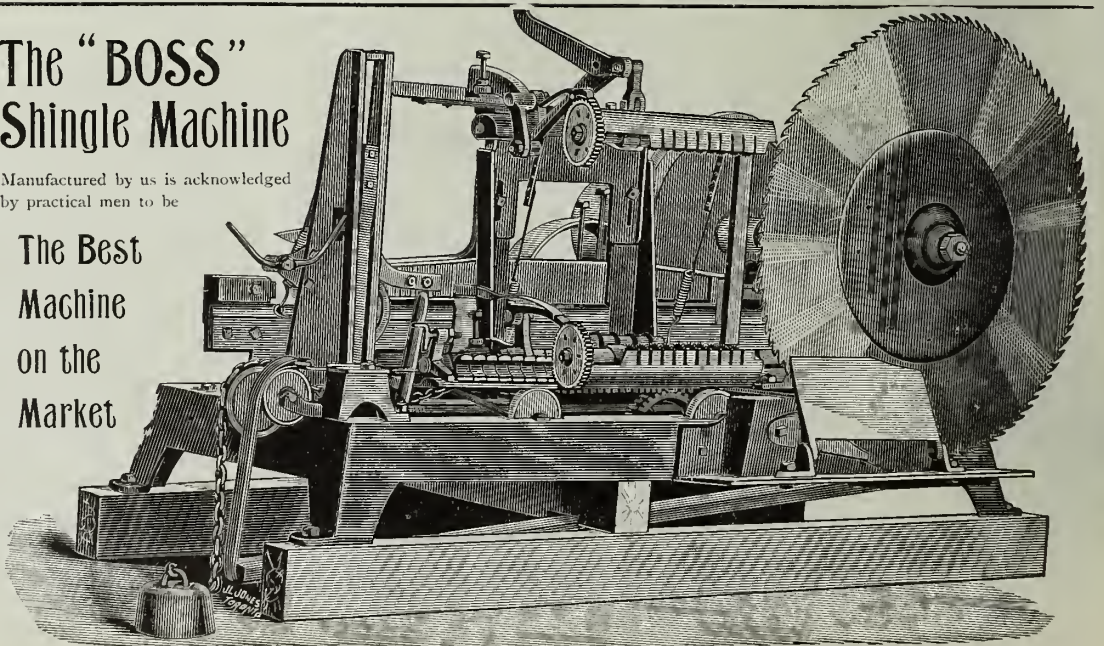
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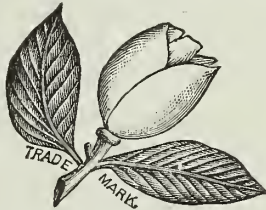
VOLUME XIII. }
NUMBER 4. }

TORONTO, ONT., APRIL, 1892

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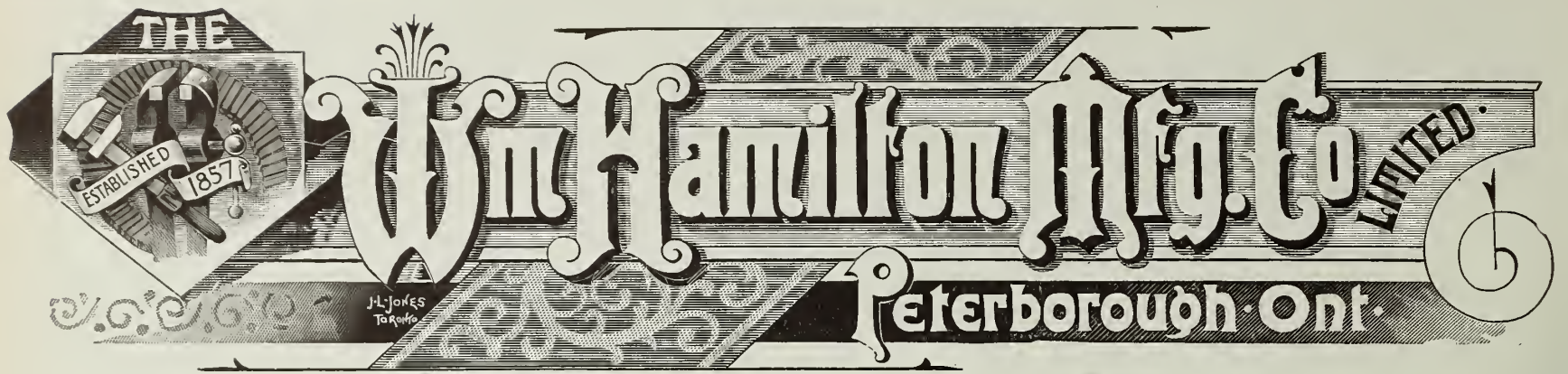
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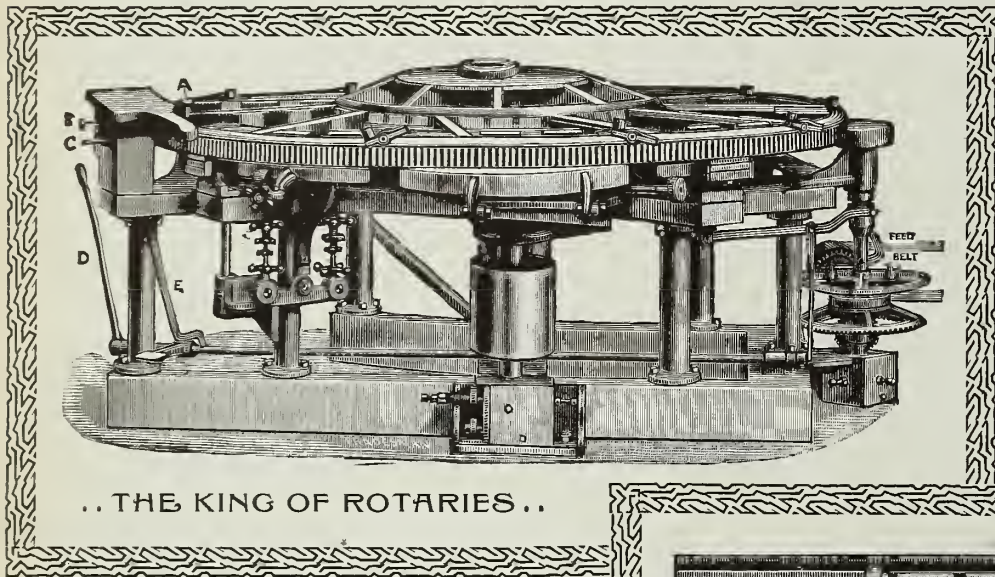


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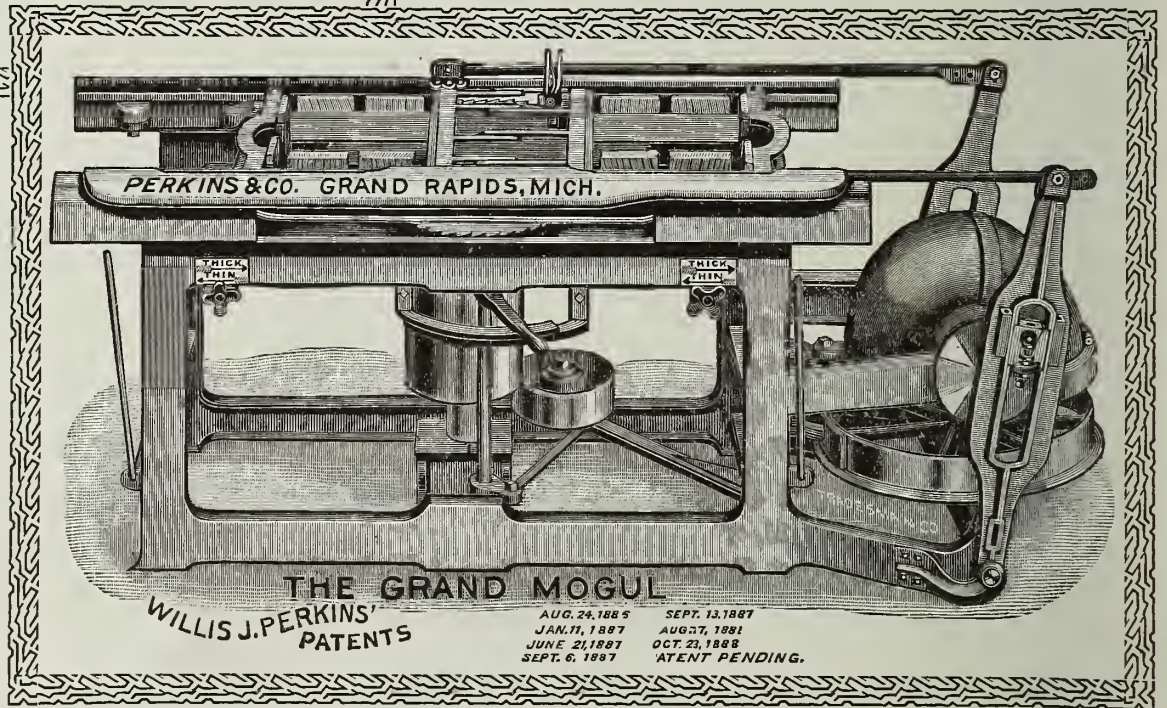


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THE CANADA LUMBERMAN

VOLUME XIII.
NUMBER 4.

TORONTO, ONT., APRIL, 1892

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CHARACTER SKETCH.

MR. E. B. EDDY.

"If I have done the public any service it is due to nothing but industry and patient thought."—Newton.

WHERE in this broad Dominion is the name of E. B. Eddy, of Hull, Que., not known? Influenced by the law of association, who strikes a match, for whatever purpose, without thinking of this greatest of match-makers?

E. B. Eddy comes of historic Mayflower stock, and was born in Bristol, Vt., in 1827, being a direct descendant of that doughty warrior but luckless wooer, Miles Standish. He came to Canada in 1851 and settled in Hull, Que., where, in 1854, he commenced the making of matches. The contrast between the small beginnings of those days and the achievements of the present—by actual calculation the product of his match factory is 27,600,000 matches per day—is an illustration of the tremendous energy and push of the man during these years; for it has not been all plain sailing with Mr. Eddy. He has had difficulties to overcome that would have downed ten ordinary men, but his unconquerable energy has enabled him to climb successfully over each obstacle as it has met him in his path.

The fire-fiend did not spare Mr. Eddy. In 1882 his large works were destroyed by the devouring element. He was in Quebec at the time, and his laconic, but intensely practical reply to the telegraph message sent him, whilst the labor of years was being so ruthlessly wiped out, is characteristic of the man. These were his words: "Put out the fire, clear up debris, prepare to build. I'll be home to-morrow."

In 1856 the manufacture of woodenware in the shape of pails, tubs and washboards was added to match-making. Later on he acquired large tracts of land and entered extensively into lumbering, erecting huge sawmills, planing mills and door and sash factories.

In 1886 Mr. Eddy's vast business interests were organized and consolidated into the E. B. Eddy Co., (Ltd.), working under charter secured from the Dominion Government. Since that date the concern has withdrawn from the planing mill business, and gone extensively into the manufacture of paper and the operation of a sulphite fibre mill, becoming large consumers of spruce and pulpwood. How closely Mr. Eddy's interests are identified with the timber interests of this country is shown in the fact that about 15,000,000 feet of lumber are sawn each year, all of which is used by the company in their various factories. About 15,000 cords of pulp is consumed annually in their chemical and wood pulp mills; thirteen tons of sulphite fibre, sixteen tons of wood pulp, fifteen tons of manilla, tissue, wrapping and newspapers, and ten tons of wood board are made daily, together with a daily average of from 260 to 265 dozen wooden pails and tubs; fifty dozen fibre wire pails, tubs, etc., and 27,600,000 matches are turned out each day (Sunday excepted) the year round by the E. B. Eddy Company. The pay roll runs about \$30,000 per month.

The following story of Mr. Eddy, told by his familiar friends, illustrates, without any playing on the word, the matchless business resources of this commercial king. Some years ago the match manufacturers of the United States resolved to secure a prohibitory duty to exclude Mr. Eddy from a modest share in the match market of

that country. He protested, but in vain. The duty was about to be put on when he appeared at a convention of the manufacturers, and, after exhausting every plea against the proposed duty they were about to rivet on by a formal demand, he threatened to place his matches, beautifully labelled, in every city, town and hamlet between Canada and the Gulf of Mexico. He did this quietly. They laughed. The duty promptly went on. Mr. Eddy returned home, re-crossed to Ogdensburg and at once secured suitable buildings for a large factory. This he equipped at once, and in a week or ten days he brought over foremen and scores of skilled hands from Hull, and engaged fresh hands on the spot, and began operations. Within a month an enormous quantity of matches was produced and pushed into the market all over the country. The American manufacturers became alarmed; the threat seemed in process of quick realization. They called another meeting; offered Mr. Eddy



MR. E. B. EDDY.

an immense sum to abandon his Ogdensburg factory, and besides paid the entire expense incurred in establishing it, and even the return fares of the employees brought from Hull.

Of Mr. Eddy personally little need be said; he is well known to the people of this country. Busy man that he is, he is ever the gentleman, and genial and courteous to all visitors. His acts of enterprise as a citizen bear their own evidence in the town of Hull, which owes its rapid and continued growth in an incalculable degree to Mr. Eddy's efforts. No more beneficent citizen is found in any community, as the people of Hull and its institutions, public and private, testify. He was married in 1846, before leaving Bristol, to a native of the same town, a lady who can claim the distinction of being the grand-daughter, on her father's side, of John Arnold, of Frankfort-on-the-Main, Germany. It has well been said: One Canada, one Eddy.

THE STRENGTH OF WOOD GREATER THAN STEEL.

A STATEMENT recently appeared in a contemporary giving the results of a comparative test of hardwood with steel, and showing that the advantage of strength in proportion to weight was with the wood. This fact seems to have been unobserved until recently, and has occasioned much surprise among woodworkers. But it is the fact that hardwood is stronger than steel in resistance to breaking weight. Some further advantages in favor of wood are thus stated by an exchange when an all-steel machine is brought into sharp contact with some unyielding obstacle, its frame is liable to spring, and when once sprung its usefulness is at an end. It cannot be strengthened without resort to the shop for repairs. If a wood frame it is not thus affected. If bent under a violent strain, it at once springs back to its original shape. A piece of steel one foot long and a half inch square weighs double as much as a piece of seasoned ash one foot long, 1 3/8 inches square. In other words, the steel in proportion to bulk is 15 1/2 times as heavy as the wood. A steel frame of a machine which is one-fifteenth as large as a wood frame weighs exactly the same as the wood. But even with this difference in size, the wood has four times the strength. These are problems that any one can solve.

On the contrary, recent evidence as to the use of steel in place of wood for railway ties, which have been very reluctantly adopted, has proven that steel is the most economical. In Burmah steel ties, after having undergone a careful test on different parts of the line, are now displacing the teak railroad ties hitherto used on the open line of the state railway. Teak so far has been found the best timber yet used for this purpose, and has been found to last as long as ten years; but the use of steel ties economizes the expense of spikes, and is reported to last from 40 to 50 years. The low price now ruling has been a great inducement not only of substituting steel ties, but also a large quantity of steel rail is now being used in this province. With the growth of this idea, which must result from the rapid depletion of our hardwood forests, no doubt a method of preserving metal ties from rust will still further lengthen the period in which it may be used and make it still cheaper as a permanent sleeper for railway tracks.

A GOOD SUGGESTION TO ADOPT.

EVERY mechanic should have a library of his own, no matter how small. A library, even if it only consists of two books, is of value. Once the habit is formed of purchasing books, it is surprising how soon a creditable collection of books will be secured, and what a benefit they will be to the owner. The mechanic unaccustomed to the use of books has no idea of the benefit to be derived from them. He does not know that the use of books will fit him for a better position, and enable him to earn better wages and do better work.

It is a good plan to set aside a certain sum each week or month to be applied to the purchase of books. Here the mistake of buying the wrong books must not be made, or the money will be wasted. Some men, once in the habit of acquiring a library, buy books merely because they are books, and will help to fill the shelves and make a show. Avoid all such nonsense. Buy books as tools are bought, because they are needed, and they will be a benefit to their purchaser.

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VIEWS AND INTERVIEWS.

Uses of
Waste Products.

In a way we live in an age noted for its extravagance. Yet no past age has given more attention to the intelligent utilization of what are considered the waste products of the earth. Doubtless the experiments sometimes made are chimerical, but it is only by experimenting we can learn what is what. A use is said to have been found for the sage brush of the Western plains, heretofore supposed to be one of the least serviceable things that grow. Its monotonous gray makes the depressing aspect of the desert worse than nothing. But an Idaho man thinks he has found what it is good for. By a lime process—boiling the branches—he gets a pulp which he says is equal to the best made from wood, and he believes he can sell the paper for four and a-half cents a pound at a fair profit.

Mill Made from
A Battleship.

In the year 1812, as readers of history know, a naval duel occurred between the American man-of-war Chesapeake, commanded by Captain Laurence, and the British frigate Shannon, commanded by Captain Broke. The battle resulted disastrously to the American vessel, its commander being killed, and the Chesapeake was carried off by the victors. The fate of the Chesapeake was curious. She is in existence to-day, as sound and staunch as the day she was launched, but is used in the inglorious capacity of a flour mill, and is making lots of money for a hearty Hampshire miller, in the little parish of Wickham, England. After her capture by Sir Philip B. V. Broke she was taken to England in 1814, and in 1820 her timber was sold to John Prior, miller, of Wickham, Hants. Mr. Prior pulled down his own mill at Wickham, and erected a new one from the Chesapeake timbers, which he found admirably adapted for the purpose. The deck beams were thirty-two feet long and eighteen inches square, and were placed unaltered horizontally in the mill. The purlins of the deck were about twelve feet long, and served without alteration for joists. Many of these timbers yet have the marks of the Shannon's grapeshot, and in some places the shot are still to be seen deeply embedded in the pitch pine.

Not All
Alike.

"I have lost all interest in advancing the work of this shop and my sole ambition is to put in ten hours per day and draw my pay Saturday night. I am entirely done with all ideas of trying to advance the interests of my employers by brain labor or improved methods of doing work. The firm has several of my devices which save it many hundred dollars per year. I have received several kicks, but no thanks, in connection with these matters; therefore, I am done with such business." This is the way an intelligent mechanic recently expressed himself. He was a good workman and a practical inventor. His effort had been to throw enthusiasm into his work, but it had met with no appreciation, and he had become soured. Forever after that man is likely to have a poor opinion of the employer of labor. Judging others by his own experience, he will consider all as simply task-masters, oppressors of the workingman, getting out of him everything that is possible, giving in return as little as he can, not even supplementing the pittance that may be paid by a word of kindness. Yet all employers are not alike. There are employers possessed with a generous supply of the milk of human kindness, whose thoughts are constantly working in lines that will help to make life more worth living to those who, by their enthusiasm, intelligence and labor, are no inconsequential factors in creating the fortune the employer is piling up. A broad sympathy, and a killing of the narrowness of view that too often takes hold of employer and employee, is what is wanted the world over between man and man. It pays—has paid where ever tried.

More About
The Sawdust Dump.

To what funny uses sawdust is put. The butcher uses it to give cleanliness to his shop floor. The fire has consumed much that has come from the sawmill. Senator Snowball has pictured to us the "sawdust dump" right under Parliament House, which adds so largely to the beauty of the Ottawa river. A few months ago we told in these columns of chemical experiments that were

being made, with the object of utilizing it in bread making. Last month we told about sawdust for building purposes. Some one with a mechanical turn now proposes to employ it as a filler in preparing house finish and furniture. The dust is selected to match the wood to be finished. If it be pine, pine dust is used, if oak chestnut or butternut, the dust of either may be used indiscriminately, if black walnut, then walnut dust, etc. It is first subjected to a baking process, by which all moisture is evaporated. The baking should be carried to a point as closely as possible to carbonizing without changing the color. It should then be put into a mortar dry and be subjected to continuous trituration or pounding until reduced to a flour. Much of the labor of trituration may be saved by running the dust through an ordinary portable farm grist mill, or even through a good coffee mill. The fine powder is applied precisely as is any other powdered filler, and it is said to possess this advantage over mineral or metallic fillers, that if baked just enough to kill the fibre, and used with pure, boiled linseed oil, it will not shrink when dry, and fall out, as will many of the mineral fillers. It is also claimed that where wood is darkened before filling, as in the treatment for antique effects, the filling can be darkened to correspond, either by submitting it to an alkali or acid bath of mild strength, before baking, or, much cheaper and easier, by carrying the baking process to a partially carbonizing degree. It is further claimed that ground with oil, non-resinous dust can be made into putty far superior to any other, as it will not shrink and needs no coloring, which renders it very desirable for painters' as well as glaziers' use. With success in this direction, there is reason to believe the dust can be utilized in mixing paints where wood tints are desired, or even for all the natural tints, by the addition of coloring matter. There is yet much of experiment and speculation as to the utilization of the waste material of the sawmill, and human ingenuity must be greatly at fault if it does not yet devise means to turn the bulk of it into articles of commerce.

Concerning
Mahogany.

In the March LUMBERMAN a brief account was given of the various woods of Honduras, one of which is Mahogany. In our day we think of mahogany most probably in connection with the manufacture of the finest grades of pianos. In England this wood is largely used for this purpose, and the class of pianos made from it are in unusual demand all over Europe. In its time mahogany has been used for all classes of furniture, from the common tables of village inns to the splendid cabinets of a regal palace. But the village inn of this country certainly displays its extravagance in other directions rather than mahogany tables. In "The Library of Entertaining Knowledge," published in London, Eng., in 1829 by Charles Knight (in their day Knight's popular volumes were widely read) some interesting facts are given concerning mahogany. The introduction into notice of mahogany appears to have been slow; the first mention of it was that it was used in the repair of Sir Walter Raleigh's ships at Trinidad in 1597. "Its finely variegated tints were admired, but in that age the dream of El Dorado caused matters of more value to be neglected. The first that was brought to England," says the writer, "was about the beginning of last century, a few planks having been sent to Dr. Gibbons, of London, by a brother, who was a West Indian captain. The Doctor was erecting a house on King street, Convent Garden, and gave the planks to the workmen, who rejected it as being too hard. The Doctor's cabinet-maker, named Wollaston, was employed to make a cabinet box of it, and as he was sawing up the plank he also complained of the hardness of the timber. But when the cabinet-box was finished it outshone all the Doctor's other furniture, and became an object of curiosity and exhibition. The wood was then taken into favor. Dr. Gibbons had a bureau made of it, and the Duchess of Buckingham another; and the despised mahogany now became a prominent article of luxury, and at the same time raised the fortunes of the cabinet-maker by whom it had been at first so little regarded." A single log of mahogany imported at Liverpool some years after weighed nearly seven tons, and was first sold for £378, resold for £525, and would, the account goes

on to say, have been worth £1,000 had the dealers been certain of its quality. The London Music Trades Journal, writing of the value of mahogany for pianofortes, says: "Spanish mahogany is decidedly the most beautiful, but occasionally, yet not very often, the Honduras wood is of singular brilliancy, and it is then eagerly sought for to be employed in the most expensive cabinet-work. A short time ago Messrs. Broadwood, who have long been distinguished as makers of pianofortes, gave the enormous sum of £3,000 for three logs of mahogany. These logs, the produce of one tree, were each about fifteen feet long and thirty-eight inches wide. They were cut into veneers of eight to an inch. The wood, of which we have seen a specimen, was peculiarly beautiful, capable of receiving the highest polish, and when polished, reflecting the light in the most varied manner, like the surface of a crystal, and from the many forms of the fibers offering a different figure in whatever direction it was viewed."

The Moloch
Of Modern Business.

Are we living too fast? The question is not new. But we go on living; have we settled the problem? Hardly, unless everyday observation more than belies the record. The LUMBERMAN is not given to moralizing. The aim of each paragraph written is to get at something thoroughly practical, but the observation of a neighbouring commercial journal "catches us" as having a very practical bearing, while possessing a strong moral coloring. "It was once the custom," says this representative of iron and steel, "to offer sacrifices to Moloch. The offerings to this gentleman were not of jewelry, vegetables or cash, but of human lives, served up on a hot coal or in a bloody basket. The altar of this man-eater was a shamble, in which the patriarch and the babe, the rich and the poor, the wise man and the fool, went into ashes and mincemeat without fear or a coroner's jury. We are fortunately living in better times. The butcher's shop is closed, and Moloch is out of business. The modern man is no longer served on a gridiron or a plate to a cannibal god. We are, however, doing some occasional whittling on the old block. In a refined and conventional fashion we are offering sacrifices of time, health and mentality to a modern Moloch. This last and improved edition of the man-eater is overwork. We live in a rapid age. The clock is too slow and the days too short. We spread a mile of life on a yard of time, and by burning the business candle at both ends the light goes out in the middle instead of at the bottom. Business is a race-horse seldom in the paddock, but mostly on the track. Everything moves under the spur and whip. In the totals of progress we have forgotten the invoices of human life. The commercial structure is immense and magnificent. We spread printers' ink in statistical Te Deums and are patriotically proud of our national supremacy. But under the superstructure is a catacomb and on the back page of business statistics an extended list of lunatics and invalids and a growing pile of undertakers' bills. Attention has been called to this fact by physicians and publicists, but the underground railway to asylums and cemeteries is still running on time and paying dividends. In the modern conditions of business, it seems to be necessary for some men to be sacrificed for the rest. They are pivotal in their different vocations. When the king-pin is missing the wagon stops. Such men labor beyond the limits of reason and the endurance of nature. Life is a file of invoices. Rest is simply an anxious man sandwiched for a few hours between two sheets, with broken nerves, delinquent health and spells of sleeplessness and nightmare. Artificial remedies are resorted to in order to postpone the usual catastrophe. Opiates, capsules and stimulants are used to stop the cracks in a leaky ship, with the usual finale, in a heavy cargo and a dead captain. There may be an excuse but there is no disguise for this fact. It is deplorably common. Overwork is becoming a public enemy. When business men are conscious of its encroachments on their vitality, they should wisely call a halt, not forgetting that even in this age of cupidity a bank account and a big business is no offset to premature exhaustion, a soft brain and a short life."

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AROUND THE CHAUDIERE.

BY MOSES OATES.

FROM an interesting sketch of the Chaudiere, published in a recent issue of the Empire, written over the well-known pseudonym of "Moses Oates," we reprint the following excerpts, which more particularly describe the lumber side of this great lumber district:—

"The Parliament buildings and the Chaudiere, with the industries clustered around it possess, however, more interest than anything else in the environments of the twin cities of Ottawa and Hull. Comparatively few Canadians have visited Ottawa, but the architecture of the buildings has been made familiar to everyone through engravings. The beauty of these stately piles, with their exquisitely graceful towers, cannot be appreciated unless they are actually seen. Engravings can scarcely hint the rich, warm, restful coloring which here, more perhaps than in any public structures on this continent, give the architecture an indescribable and surpassing charm.

The Chaudiere is a more magnificent and more interesting spectacle. It almost defies description and cannot well be photographed; so it does not receive the attention from the public at a distance that it merits. In stupendous turmoil it surpasses Niagara. It is full of sentiment, and yet is one of the most practical bread-and-butter affairs in existence. Its height falls short of the expectation of a visitor. Though the total descent of the river is sixty feet, the fall proper is only about forty feet high, and scarcely seems half so much. But when you are in Ottawa you cannot forget the cataract. The roar is everywhere. It penetrates the hotels. A stranger—I have several times mistaken it for the roar of rain on the roof. Its sound is a multitudinous murmur. It enters the halls of Parliament at times; on the square it is as the sound of a Niagara. But when you look over the cliff westward up to the broad city of lumber that stretches, with its slides and water avenues, across the valley from Ottawa to Hull, you see no adequate cause. A latticed bridge spans a narrow chasm hemmed in by mills. Behind it, above it and below is a gleaming roll of mist from which emerges on the dark waters a long, tossing undulating serpent of foam that winds slowly down the widening river, passes below your eyes, and miles away eastward till lost where the river curves out of sight. The river view towards and beyond the falls is beautiful, but no falls are visible; only a glinting as of bright bayonets flashing in the sun amid the smoke of battle.

ON THE LUMBER FLATS.

To understand the Chaudiere you must go there. Winter has its peculiar charms for this excursion, but summer, on the whole, is better. A horse-car line, winding deviously along the streets on the bluff, gives you glimpses now and then of the lumber flats below. At last you descend into the strange wooden city of the Chaudiere, the largest lumbering centre in the world. Interest grows with every yard of your progress. Lumber, lumber everywhere; countless piles on piles, that shut out the vision and fill your nostrils with the balm of the piney woods. Railway tracks cross your path and wind in amongst the mills. The famous slides, the running of which is one of the most coveted and thrilling experiences life conveniently affords, pass under you and away. Lanes of water run here and there. Where they open on your way you catch momentary vistas of mills and wooden causeways and bridges, of terraces and gorges of water and roaring cascades that leap or tumble from glassy basins into foaming depths, whose multiplicity and distribution are confusing. Your ears are stunned by the sounding waters. Your eyes are delighted with phalanxes of crystal spouts, breaking into foam, and sending up from shady depths almost impalpable clouds of spray, against which rainbows bridge the mysterious waterways, and veil in glory the dim interiors of the wide-mouthed mills where men move and saw rip their stately, deliberate way, as in a pantomime. Now and then, as your car rattles on, you get a glimpse in the sombre east, above the lumber piles and rainbows and noise and turmoil, of the calm and beautiful towers and facades on Parliament hill, while up water lanes leading into the glowing west you see booms and logs, and beyond them the lake-like expanse of twinkling river, stretching towards the wilderness.

The car stops near the bridge, and opposite that colossal congregation of belts and saws, pillars and beams and shafts, known as Booth's sawmill. It is, since its recent enlargement, the greatest lumber mill in the world, and has a capacity of 100,000,000 feet per annum. The car stops and trembles, and as you leave it and walk on, the quivering is that of a gentle earthquake. The ground seems solid enough, but you doubt whether or not you are on *terri firma*; whether the quaking is due to the buried Ottawa, tossing and tumbling along subterranean ways, or to the mighty impact of the falls near by. You step upon the suspension bridge, and suddenly, past the angle of the great mill, with a roar at once augmented a hundred-fold, the Chaudiere, enwrapped in shining mist, bursts upon you.

A SCENE OF STUPENDOUS TUMULT.

As you lean over the railing your first thought is scarcely of the falls. Their height is insignificant; they are much overtopped by the by no means lofty structure of plank and beam that pushes out into the mist and surges of the basin. But you do not think of that for the moment. Your senses are filled with the stupendous tumult and slow and awful strength of the surging floods pent and struggling through the chasm below. The sound of many waters is in your ears, the thud and thunder of the fall of mighty floods; the hiss and swish and roar of a thousand voices of the cataract calling from the seething chasm, from the cascades pouring over timbers and rocks on either side, and from the rolling spouting clouds of spray, through which in front a myriad blades of light flash dazzling from the face of the falls.

Then you have leisure and disposition to enjoy the scene in detail and appreciate the very varied beauty which, in a measure, unequalled in any noted cataract elsewhere appeals to every mood and change of the soul. Through the spray above the falls is seen the broad surface of the Ottawa, twinkling against the green of the distant shore and spanned far out to the islets in mid-stream by the silver gleam which marks the first roll of the cataract. Then the great river, here a full mile in width, suddenly converges within a quarter of a mile, and almost at right angles, and after yielding minor rivers to the lumber flats, gathers for its plunge into the "cauldron" of the Chaudiere.

On the right, or Ottawa side, the river comes in deep, smooth, stately flow; on the left the shallower waters, curving in by the Quebec shore over ledges of limestone far apart, flow down a succession of long lines of little glistening falls. In mid-stream the deep river becomes more and more disturbed as it nears its plunge. It breaks and tosses now and then into feathery foam, and here and there swells into rounds and ridges, or sinks into permanent hollows, where the gathering waters pour in from either side and go raging down the rock-rifts worn up stream from the edge of the gorge. Then comes the mighty plunge.

A UNIQUE CATARACT.

If the spectacle of a great river, ranking with the largest in Europe, suddenly contracting from the width of a mile to force its furious way through a rock-bound passage not 200 feet across, has a few parallels, in irregularity of outline the falls of the Chaudiere are absolutely unique amongst great cataracts. The river flows from west to east; but the waters fall from every direction. A deep crack or gorge, 500 feet in length, extends north and south athwart the stream, but not the whole way across. A second gorge runs eastward from the south end of this crack with the direction of the river and passes under the bridge. Above the bridge a third ravine enters the second from the north. The three gorges form the edges of a somewhat quadrangular plateau of rock extending out from the Quebec shore, and on a level with the riverbed just above the main falls. Over this plateau the river flows and spreads, and falls from three faces, west, south and east into the chasms. As the mid-waters of the river flow directly over into the great transverse crack, and the waters converging from the left pass the main fall by and pour into the gorge from the south, the Chaudiere has five sides. In full flood the cataract has a continuous angular front of nearly 2,000 feet. It is this extraordinary peculiarity of outline which gives to these falls their unrivalled magnificence of tumult and makes their name Chaudiere, or "Cauldron"—so peculiarly appropriate.

Nor is the Chaudiere lacking in historic interest. More than two and a-half centuries ago Champlain camped here. The cauldron was familiar to nearly every adventurous spirit of the ancient regime, for this was the gateway to the vast and mysterious west before a white man had seen Lake Erie, or heard the roar of Niagara Falls. Here the great canoe fleets of the Hurons paused on their way to and from the little trading fort at Montreal, and through the dark woods fringing the chasm poured hundreds of dusky warriors in the arduous toil of the portage. Here the bloody Iroquois, boldly penetrating from their southern home, lay in wait, and sometimes their dreaded warwhoop mingled with the roar of the cataract.

All is changed: the last vestiges of the primeval forest have long since disappeared. But the Chaudiere is more a place of portage than ever. Steamers puff their strenuous way into the lower surges of the cataract. From hundreds of miles above the forests come down and emerge on the broad river below in lumber destined for the markets of two continents. A great causeway runs from the bridge to Hull and overlooks the terraced cascades of the ravine. It is thronged from morning till night with thousands of busy feet, for at its further end clusters one of the marvels of the Chaudiere, the colossal factories of Eddy, of Hull, from whose industry within a generation a whole city has sprung into being."

CAN SMOKE BE BURNED?

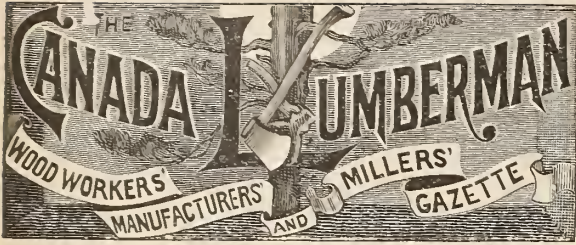
AS a matter of fact smoke, at the temperature necessary to ignite carbon, may be consumed, but smoke once created and carried by excess of draught from the hottest part of the furnace onward to the smokestack, may not be consumed. It requires a temperature of 800° to ignite carbon. The answer to the question must be with a view to practical value, and to compress the matter necessary to be understood. For answer we will assume a fresh fire be made and fed with bituminous coal. A large volume of smoke is seen to be given off and hurried by the draught to the smokestack.

Of what is that smoke composed? There is, firstly, the water that is in the coal converted into vapor, and that vapor is the carrier of the matter that we call smoke; that smoke is composed of hydrocarbons, and the more solid matter that is chiefly carbon. Now, bear in mind that the smoke is of the coal a part; yet one part is consumed and the other part escapes as soot and smoke. Why, burning is an act of contact, intermixture, ignition and union, by which the hydrocarbons and the solid carbon in the fuel enter into union with the oxygen derived by the draught from the outer air; that union, to be perfect, must be in scientifically determined proportions; if the air supplied be insufficient, then the union will be limited and the volatile constituents of the coal will pass away as soot; if the air be in excess the temperature will be lowered and the solid particles of carbon from the disintegrating coal will be carried by the draught from the fire-bed unconsumed to the smokestack as smoke.

If the requisite oxygen was supplied in contact with the ignited and igniting coals, then the smoke would be consumed, for that smoke is only comminuted parts of the coal resulting from disintegration of the greater parts, the disintegration caused by the heat resulting from the union of the oxygen supplied and as much of the combustible particles of the coal in a gaseous state as that oxygen can take up.

Now, as combustion is an act of union, there will be no smoke from that which enters into union, and if there be a sufficiency of oxygen to enter into union with all the gases of the furnace, then by their intermixture there will be union, creating sufficiency of temperature for ignition of and combustion of the solid carbon particles, as well as of the volatile constituents; and no smoke.

The answer, therefore, to the question: "Can smoke be burned?" is yes, with the exact required proportion of oxygen in contact with, and intermixing with, the gases in the furnace; without the exact required proportions, and under the ordinary usual conditions of firing, with or without the hundreds of schemes, many of them revived fallacies for smoke-burning, it is not possible to burn smoke in the furnace; that is to say, it is not possible to burn smoke in the furnace except and to the extent of the portion that has entered into union with the oxygen provided by the draught from the atmosphere.



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—BY—

ARTHUR G. MORTIMER

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THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 75 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

ONTARIO CROWN LANDS.

THE annual report of the Commissioner of Crown Lands for this province is a document of special interest to lumbermen. Notwithstanding the unpopularity of the average blue book we do not know why every citizen should not be deeply interested in this particular volume. The proud position of Ontario to-day is due in no small measure to the wealth of her forest products. What we shall yet be will be dependent, in part at least, on the future management of these products. There would appear to be no valid reason for dissatisfaction with the management in the past. In matters of detail, there are those who will criticise this management. We suppose mistakes have been made; we do not know that infallibility is claimed by the Commissioner; but broadly, the generally successful and satisfactory results to the province at large is the best comment on the generally wise administration of our wood and forest interests by Mr. Hardy and his associates. We will all trust that this record may be sustained throughout the years to come. It will not be the case; however, without more skillful management each year than in any of the years preceding. Our timber products become less with each season's cutting. As shown in the Minister's report, to which we refer more in detail below, losses are continually experienced from the ravages of the bush fire. In a sentence, our woods and forests are not inexhaustible. When we had plenty we could perhaps afford to be prodigal; to quote Poor Richard: "When the well is dry we know the worth of water." A timber famine is not yet imminent in Ontario, but the long view of public affairs is the wise view, and its application to our forest wealth will mean a continuation to the province of the prosperity it has so amply enjoyed in the past.

The past year: The Commissioner inform us in the report laid before the House at the present session that the total collections from woods and forests amounted to \$1,022,619.31, which includes \$172,521.22 on account of bonuses, leaving the revenue from timber dues, ground rent, etc., \$850,068.09.

Little or no improvement is said to have taken place in the "square timber trade during the year, but the large stocks held in the makers' hands and at ports of shipment have materially decreased, and as only a limited quantity of timber is being taken out this winter there is good prospect of the square timber trade being soon in a satisfactory condition. The sawn lumber trade has been fairly active during the year, and, though there has not been a great advance in values, the demand for lumber has been sufficient to keep prices firm. The output of logs and timber last year was less than that of the previous year, and consequently the stocks of logs and lumber held at the mills have been greatly reduced. From present appearances, if the winter continues favorable, the output of sawlogs for the coming year will be greatly in excess of last year, and a consequently increased accrual of revenue may be expected."

About 95,000,000 feet of pine timber damaged by fire on the north shore of Lake Huron was placed on the market for sale, and disposed of at prices satisfactory to the department. Besides this loss, a result of the extremely dry weather of the past summer, about 100,000,000 feet, more or less, were damaged on licensed lands, but, owing to the presence of the fire rangers, the localities where the damage was done and the quantities damaged were known in time to enable the licencees to make arrangements to cut so much of the timber as would be wasted if not at once manufactured. The estimated loss on account of timber burnt on licensed lands, from figures furnished by the licencees, would appear to be about \$70,000. What the net loss from these fires will be to the province cannot yet be definitely stated until the cutting is completed, but there seems to be little doubt that had it not been for the fire ranging service of the department these losses would have proven much heavier. The largest limit-holders in the province avail themselves of the service; and last season thirty-seven of the various lumber firms had rangers upon their limits. The number of rangers employed was ninety-eight, at a cost of \$20,053.24. In answer to circulars sent out the licencees have expressed themselves well satisfied with the fire ranging service.

The Ontario Cullers' Act came into operation for the first time last year, which necessitated the holding of examinations at various points throughout the province to test the fitness of persons desiring to be licensed to cull sawlogs and timber cut upon Crown lands. Each of the examining Boards consisted of three skilled persons, one of whom represented the lumbering interests, the other two being selected by the department. Examinations were held at thirteen of the most important and easily accessible lumbering centres; 383 candidates were examined, of whom 371 were found qualified and granted licenses.

CROWN LANDS IN NEW BRUNSWICK.

THE system of management of Crown Lands in New Brunswick has been a source of discontent and friction in that province for many years. To endeavor to remedy the various evils the Local Legislature in July, 1890, appointed a commission with instructions to enter fully into the question and report to the House at a later date. The Commission have taken nearly two years to complete the work, holding eighteen meetings during that time, with the result that the report is now in the hands of the provincial secretary.

The instructions to the Commission were in these words: "To investigate and report upon the best method of administering the Crown timber lands of the province, and in so doing to consider and report upon the relative merits of long and short leases; as to the rate of stumpage proper to be charged, having regard to the state and condition of the lumber market and the competition to which the New Brunswick product is subject in European markets; also as to the relative advantages and disadvantages to which the trade is subject in the northern section of the province as compared with the southern section; also as to what aid, if any, can properly be given, and upon what rivers and streams, towards facilitating driving operations; also as to what changes could with advantage be proposed and adopted in respect to the scaling of logs and lumber; also as to the permanent employment of scalers or rangers by the year and the mode of compensation to those officials;

also as to the protection and conservation of the forest wealth of the province." A circular was sent to those engaged in the lumber business in other provinces, and also to the leading lumbermen of New Brunswick, in which accurate information and statistics were sought on various troublesome points. Oral testimony was likewise taken from a number of persons interested in lumber affairs.

The report favors long leases rather than short leases, as being in the interests of both the Crown and lessee and is consistent with the practice in Maine, and is said to be the general desire of the principal operators in the province. The recommendation is made that at the expiration of the term for which existing leases are held the lumber lands be leased at public auction, to be held by the lessees thereof by yearly license, renewable from year to year during the pleasure of the Government under conditions of compliance with all regulations made or to be made by the Governor-in-Council. The Commission say they are of the opinion that "the present value of the timber upon the Crown lands is considerably in excess of the rate or price for stumpage now obtained therefor, and if it were husbanded a rate of stumpage very much larger, perhaps double the present rate, would be realized within a few years. It is urged that there should be a strict enforcement of the law against cutting under-sized trees for pulpwood as well as piling. To correct this prevailing abuse the Commissioners advise that in all such cases double stumpage be charged. They would not at present advise discriminating rates of stumpage in different sections of the province, but advise that the stumpage on cedar be made the same as on spruce and pine logs.

Following on the lines of management of Crown lands in Ontario the Commission further recommend the permanent employment of men of experience and character to act as scalers, rangers, fire police, fishery and game wardens, assistants in surveying, etc., at fixed yearly salaries, to be paid out of the Crown land revenues. The Commission would have these appointments non-political. They find that at present the scaling is not uniform, and that while in many cases operators have had their logs over-scaled, yet on the whole there has been a loss of stumpage to the Province of perhaps 20 per cent. No reasonable expenditure, it is stated, should be considered too great for the protection of timber lands from fire, and a clause should be inserted in all leases requiring lessees to use every reasonable precaution to protect them against fire.

They would have an appropriation made annually to be expended in retracing and marking established lines of survey, and would like to have all the timber lands of the Province surveyed into blocks of not more than five miles square, and the quantity of lumber thereon approximately ascertained, when the expense is warranted. They direct attention to the injury done to the lumbering interest as well as to the reputation of the Province as an agricultural district by permitting settlers to locate on timber lands which are unfit for tillage. They also direct attention to the waste of hemlock timber when cut for the purpose of obtaining bark, the logs being left to rot in the woods.

The report is signed by the three commissioners: Messrs. A. F. Randolph, Frank Todd and Hon. Allan Ritchie. It has been looked for with more than ordinary interest by lumbermen both inside and outside of New Brunswick; and will prove of general interest to LUMBERMAN readers in their desire to keep in intelligent touch with lumber affairs generally.

LUMBER TARIFFS.

OUR Ottawa correspondent has something to say of the several deputations which have waited upon the Government within the past month asking that certain changes be made in the lumber tariff.

The requests named were in the line of increased duties on lumber; the paper men asking for a re-imposition of the duties on spruce, and British Columbians that Douglas fir be protected. Mr. Ives' notice of motion calls for a re-imposition of the duty on all sawlogs. On the 1st inst., after our Ottawa letter was in print, a large and influential deputation waited on Messrs. Abbott, Foster and Bowell, taking diametrically opposite ground on the lumber duties to that advocated by

the previous deputations. The lumbermen present were: Speaker White, Messrs. McCarthy, O'Brien, Bennett, Tyrwhitt and Edwards, of the House of Commons; Messrs. J. R. Booth, Hiram Robinson, Egan, James Gillies, F. W. Powell, David Maclaren and C. H. Edwards, representing the Ottawa lumber interests; and Messrs. James Scott, Waubaushene; D. L. White, Midland; J. L. Burton and H. H. Strathy, Barrie; A. H. Campbell, Toronto. These gentlemen strongly opposed the reimposition of the export duty upon either sawlogs or wood pulp, believing that it must inevitably result in Canadian lumber coming under the operations of the clause of the McKinley Act which imposes a practically prohibitive duty upon lumber imported from countries which impose an export duty upon logs. They also strongly opposed the proposed increase in the duty upon mess pork, contending that Canadian farmers are yet unable to supply the demand, and that the imposition of the extra 1½ cents per pound could only result in loss to the lumbermen.

In our Michigan letter, and also in the ELI columns, some brief reference is made to tariff matters in the United States. The fact is that nothing has yet taken a formative shape in actual legislation in either country. The Washington convention fell flat, only about fifty representatives visiting the Capital. United States lumbermen are in no sense unanimous in their opposition to Mr. Bryan's bill, whilst others are perfectly indifferent, and not a few would welcome free lumber. The Chicago Timberman counsels its friends "to keep cool and speak softly; even if the tariff were removed the United States would survive the shock and lumber still be worth more than cost." And the New York Lumber Trades Journal says: "A duty does not protect the lumber dealer, but it does protect the owner of stumpage; yellow pine does not compete to any great extent with Canada pine; and the price of pine beams and heart flooring is very little affected by the price of Canada pine." It is a case where some are doing a good deal of barking. The watchful dog must sustain his record for watchfulness, but the bark is very harmless.

EDITORIAL NOTES.

DENVER, Col., is to have a lumber trust, framed with sufficient ingenuity to avoid the penalties of the law.

WE have received, too late for insertion or comment in this number of the LUMBERMAN, a letter from Mr. Wm. Little, of Montreal, Que., anent tariff matters. Some mention will be made of the subject in May.

THE Forestry division of the United States Department of Agriculture have been making a series of tests to ascertain whether the allegation that the withdrawal of resinous matter from the long leaf pine of the south has an injurious effect upon the strength of the trees subjected to these tests. This practice is known as "boxing" the timber, because the gathering of the resin is done by cutting a recess (box) into the foot of the tree, which is called "boxing" the tree, and then scarring (chipping) the trunk above the box, increasing the size of the scar from year to year. From this scar the semi-liquid resin exudates and drains into the box; this process is continued for four years, and then the trees, lessening in yield, are abandoned. The current public belief has been that the timber of these "boxed" trees, sometimes called "turpentine timber," is deteriorated by the process. Not only is its durability, in which this species excels, believed to be lessened, but also its strength, and hence its value in the market has been considerably reduced. Since annually from 500,000 to 750,000 acres of this pine are boxed, involving in this assumed deterioration, at the lowest estimate, 1,000,000,000 feet, B.M., of lumber, a considerable loss in values, counting by millions of dollars, is thereby incurred. Mr. Fernow, chief of the forestry division, made some 115 tests of "boxed" timber. He does not admit that his conclusions from the experiments made are to be deemed absolute. He thinks it may be desirable to extend the investigation. The finding, however, is this: "Although enough tests have not been made to enable general laws to be formulated, the tests are sufficient in number to indicate that, generally speaking, 'boxed' longleaf pine loses none of its strength on account of undergoing that practice."



THE shrewd business man fits in his business to suit the requirements of the locality where he is domiciled. No sane man would think of opening an ice-cream restaurant among the Esquimaux, nor expect to do a thriving coal trade in the heart of Central Africa. But such conditions might possibly be reversed with some advantage to all concerned. Lumberman John Gunyo, of Brighton, Ont., is one of the men who aims to do business where business can be done. I had a talk with him a few days ago and learned that he has purchased a new property in this thriving village, which he will fit up with modern machinery for the manufacture of cheese boxes and barrels. Brighton is the centre of a large cheese manufacturing country and Mr. Gunyo's trade in this direction may be taken as assured. Elm is grown in good quantities in the vicinity and is cut by Mr. Gunyo in his sawmill at Smithfield.

* * * *

Is not this a sensible view as expressed by the president of the Chicago Lumbermen's Association in his annual address? He said: "If our present business fails to show that measure of profit which the outlay of time and capital employed would seem to warrant, I cannot resist the conclusion that undue competition among ourselves in our home market is more at fault than the natural competition we must always expect to meet from other markets, seeking the same outlets for their lumber product." "Save me from my friends" has been the prayer of more than one man, and it is true that the obstacles that thwart trade in all lines of commerce, and we know it to be the case in lumber, and not confined to Chicago, are often from within rather than from without. I often think if those who take a particular enjoyment in fighting supposed enemies from an opposite camp would busy themselves in making the roadway clean before their own door, or, if you like, examine the condition of the mote in their own eye, that they would realize substantial business results much more quickly.

* * * *

Mr. Phipps, provincial forestry officer, with commendable persistency, never loses an opportunity to put in a word on his favorite subject—forestry. I was glad to learn of his talk to the boys of Upper Canada college a few days ago. Catch a Scotchman, it is said, when he is young, and imbue him with right notions on any subject and one has an ardent disciple for all time. Others besides Scotchmen are shaped right when caught young. It was a happy idea of Mr. Phipps to undertake to impart to these college youths correct thoughts and principles in regard to one of the richest of our natural products. Who knows but what a future Commissioner of Crown Lands was in that audience? We may be sure that future parliamentarians were there; doubtless, successors to the lumber operators of this day; certainly the coming citizen was there. The question of forestry is a citizen's question, and the boys of all our educational institutions, from the lowest to the highest, should be taught the leading principles of forestry. Let me whisper to the Minister of Education, who has always shown himself ready to fall in with any suggestion of a national character, that it would be a popular move to arrange for a talk on "Forestry" by Mr. Phipps, or other experts, to public school and high school pupils, and it would not be a mistake for the teachers themselves to have a lecture on the subject.

* * * *

I have heard an amusing story of an old-time lumber king of Aroostook county, Me., which readers of this page will enjoy, perhaps more particularly those of New Brunswick, some of whom were doubtless acquainted with Colonel John Goddard, the subject of the yarn, who was at one time a prominent figure in Ashland and other parts of Maine. He was an eccentric genius

and was made the leading character in a novel called "Now-a-Days." On one occasion, when he wanted to hire an ox teamster, Goddard went into the barroom of a tavern to test the ability to drive his oxen of a dozen woodsmen gathered there. He got down upon his hands and knees and acted the part of a contrary ox, inviting the crowd to display their skill as teamsters. Several tried and failed to suit the great lumberman, when up stepped a strapping young six-footer, who remarked that he could start any ox in Aroostook. He took the goad-stick, in the end of which was a long brad, and tried the ordinary methods for a while, but the ox shook his head and wouldn't budge. Then the new candidate for teamster suddenly jammed the business end of the goad an inch deep into Goddard's flank, and the result was startling. The lumberman emitted a yell which could be heard across the St. John, sprang to his feet and wanted to fight. But he cooled down under the calm gaze of the six-footer, joined the general laugh and hired the man on the spot.

* * * *

Ship-building calls for spars and masts to-day much larger in size than those used in the years 1865 to 1870. Then the vessels built were smaller than the crafts of to-day. Our eastern provinces, together with New Hampshire and Maine, supplied the timbers for these purposes at that time. But their forests are thinned out of suitable timbers, and British Columbia and Washington Territory are enjoying this trade to-day. Mr. J. L. Cunningham, of Boston, whose business it is to supply masts for ships to the Atlantic shipbuilders, tells in an interview something of this trade. "The northern pine," he says, "is next to the white oak in strength, and has double the strength of the eastern pine. I buy nothing over 115 feet in length, but we could get masts 150 feet long if we wanted them. It is little trouble to get a stick 150 feet long without a knot. The lumber business in the State of Washington is extremely dull, and half the mills along Puget Sound are idle. A stick that cost \$110 a year ago can now be bought for \$60. The reason? The South American and Australian markets have been overstocked, and there is no demand. The markets are glutted. Why, a year ago the freight on 1,000 feet of lumber to South American ports was \$21.50; to-day it is \$9.50, and the worst of it is there are no prospects of improvement for the present. A cargo per year of such spar timber is shipped in the rough, and the masts are shaped at New England and eastern shipyards."

* * * *

Our old friend, P. O. Byram, of Victoria Co., N.B., writes: Mr. ELI, by the looks of your keen eye, I think you can tell us the most destructive animals with which we have to contend, and how to keep them from destroying our commonwealth. I may be mistaken; but, as the Yankee says: I presume to calculate its the highest grade of the human species. About fifty years ago, before the grading of animals was known, our graneries held out and supported the race without fear or alarm; and owing to the toll coming indirectly out of the consumer's dish, they were not aware it cost anything to support them. But since Confederation and the grading by class took place, we have attained to a state of such high cultivation consumers begin to view their situation with alarm, and fear the bottom will fall out of their grain bin. I propose to change the programme, taking the toll to find the stock, instead of taking it indirectly out of the consumers, and they not aware how much it costs them to keep up the race; take it direct out of capital, according to number of thousand dollars in matter, instead of out of the poor consumer, having to support eight or ten children, under the head of protection and indirect taxation. In how long capitalists will stand to be taxed to hold out a premium to Brother Johnathan of thirty-five cents in shingles and \$2.00 per M. put on other lumber for them to cross the lines above Grand Falls; to slaughter our forests and carry it on the American side to manufacture it. But in Ottawa, New Brunswick interests are poorly represented or they would not stand such nonsense. What's your opinion about it?

THE CANADA LUMBERMAN is a most excellent trade paper, and ably represents the interests of the Canadian lumbermen.—Chicago Lumber Trades Journal.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE Government has been waited upon during the month by several deputations directly or indirectly connected with our timber interests.

The paper makers are pressing their claims for a re-imposition of the export duty on wood exported to the United States for the manufacture of paper. A deputation consisting of Mr. John McFarlane, manager of the Canada Paper Company and President of the Paper Makers' Union of Canada; Mr. E. B. Eddy, of the Hull Paper Mills; Mr. John R. Scott, of the Napanee Paper Mills; Mr. Rowley, manager for E. B. Eddy, and Mr. J. J. Gormully, Q.C., Ottawa, had a conference a few days ago with Mr. Abbott, Mr. Foster and Mr. Mackenzie Bowell touching this matter. Spruce pulpwood and spruce logs are being heavily drained upon by United States concerns and it is on these specially that a re-imposition of the duty is asked. It was pointed out that when the United States had, under the conditions of the McKinley Bill, reduced the duty on pine lumber to \$1.00 per thousand feet, spruce was not included, and remains at \$2.00 per thousand, whilst the export duty on spruce logs was removed altogether, as in the case of pine logs. This has given the United States dealer, it is alleged, an unfair control of our spruce stocks. The United States had in the meantime imposed a duty on ground wood pulp of \$2.50 a ton, a rate which amounted to about \$1.25 a cord; and in that way, spruce being largely the substance from which ground wood pulp is made, their tariff practically prohibited the importation of that article into the United States, except at the high rate of duty, thereby getting the better of Canada.

The Government has also been approached by the British Columbia members, who consider that in the constitution of the McKinley Bill an invidious distinction has been made against Douglas fir, a rich product of the Pacific province, as with spruce in Quebec and New Brunswick. They ask for a similar duty on pitch pine and redwood imported into Canada to that exacted by the United States Government upon Douglas fir entering the United States, unless the British Columbia Douglas fir is admitted free into the United States.

Supplementing these requests of a special character from lumbermen is the notice of motion of Mr. Ives, M.P., which has a position on the order paper asking for a re-imposition of the duty on sawlogs all round; in other words, going back to conditions before the McKinley Bill was a known article of legislation.

The First minister and his colleagues have promised to give prompt consideration to the wishes of the paper men and British Columbia lumbermen, but with what effect it is difficult to say. It looks, however, as if Mr. Ives, who is a Government supporter, though he had been disposed to kick, will be kept reasonably quiet, and his motion will probably get no further than the order paper.

AFFAIRS OF THE CASSELMAN LUMBER CO.

More than ordinary interest is being taken by all classes in the affairs of the Casselman Lumber Co., now in liquidation. The statement of assets and liabilities prepared by Mr. J. M. Garland, liquidator, shows the total liabilities to be \$124,000, and nominal assets \$143,000. These consist mainly of lands covered by mortgage, and logs and lumber, which is largely hypothecated, and if placed under forced sale would exhibit a material shrinkage. Besides an action, it has been stated, has been entered by the Molson's Bank to attempt to recover possession of a large portion of the real estate, including the large site of the sawmill, which was burned a month ago. All these circumstances give a problematical character to the estate, in which many Ottawa lumbermen and others have a considerable interest as creditors. A wider interest is felt by the residents of the village of Casselman, the very existence of which is practically dependent upon the welfare of the company. If the company is to be wiped out it almost means the extinguishing of Casselman, and a serious loss of trade to storekeepers both of the village and in Ottawa.

OTTAWA, ONT., March 28, 1892.

Thirty million feet of logs are banked on the Tillabawassu River at Midland and 20,000,000 at Averill, Mich.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

MR. JOHN WILSON, manager of the Brunette Sawmill Co., has recently returned from a trip to the Australian colonies, and shrewd, observing man as he is, every opportunity was utilized to study the country and its people.

Mr. Wilson went on business, of course, and we have reason to believe that his mission in this respect was successful. Trade in Australia, as LUMBERMAN readers know, has been very flat for some time back, though the outlook is now rather more promising. Labor disturbances have crippled business in these colonies, as they have in other parts of the world. Mr. Wilson's opinion is that the strikes in Melbourne and Queensland have been the means of keeping a great deal of capital out of the country.

Australia has got great undeveloped wealth in minerals, etc., and, with the exception of the colony of Victoria, the exports exceed the imports. The feeling is general in all the colonies that a steamship line from British Columbia direct would be of great benefit, not alone to them but to Canada, and they are hopeful not only of seeing the two countries connected with a direct steamship line, but also with a commercial cable. When this becomes an accomplished fact the C.P.R. will be the highway between the Australian colonies and England. The time now occupied between Vancouver and Sydney is twenty-eight days. This could easily be reduced to twenty days by a direct line.

Mr. Wilson was rather astonished at the railways in Australia, which are all run by the colonial Governments, on the European system. He says the Australian merchants are more anxious to increase their dealings with Canada than with the United States.

Six years ago the Broker Hill Silver Mines were bought for \$7,000 and since then have paid the stockholders \$15,000,000, and are to-day worth a fabulous amount. The town of Broker Hill, when Mr. Wilson visited it, was depending upon the railway for its water supply, and water was then selling at six shillings per 100 gallons, to a population of 30,000 people. The thermometer at Broker Hill registered 103° in the shade. The federation of all the Australian colonies is looked for in the near future, and sanguine people think this will be the forerunner of Imperial Federation. Mr. Wilson enjoyed his Christmas dinner in the height of summer, and with a fan in his hand.

GREAT LUMBER DEAL.

A big deal in British Columbia timber and sawmill properties was consummated last week, when Mr. L. H. Northey, acting for himself and Senator Drumm, Mr. W. B. Allan, Mr. P. A. Paulson and Mr. B. Carmody, of Tacoma, entered into an agreement with Mr. W. P. Sayward, of Victoria, to purchase his big mill, in operation at Rock Bay, his timber limits comprising some 15,000 acres on Vancouver Island, his steamers and all the other paraphernalia of the immense business, which is one of the oldest established and most important in British Columbia. The contract figure is not yet made public, but it is understood to be in the neighborhood of \$350,000. The company purchasing are allowed until the first day of May to inspect the timber, which has not yet been thoroughly examined, and then Mr. Sayward is to have sixty days in which to wind up affairs. The acquisition of the Sayward property will give Mr. Northey and his associates 50,000 acres of timber land in this province, and their intention is, as soon as they take possession, to proceed with the erection of a thoroughly and modernly equipped mill in Victoria, capable of cutting not less than 180,000 feet per diem.

SHAVINGS.

The Brunette Sawmill Co. have substituted the Dick belt for the rope transmitters formerly in use, and have now the largest driving belt ever used on the mainland. It is eighty-six feet five inches in circumference, thirty-six inches wide, made endless, of gutta percha and canvas, and it is claimed that it can be used in the water if necessary, without stretching.

The fine weather continues and orders for building keep the mills busy.

Prospects for trade with Australia and South America are improving.

Cassaday's shingle mill at Vancouver has cut 40,000

shingles daily for some time, which is considered very good work.

Michael Fortin, of the Mission sash and door factory, reports business good.

A. B. Dixon has been appointed manager of the Mission sawmills.

The twelve new boilers for the Moodyville mill have been brought over from Victoria. The mill will be running again by April 1.

The Okanagan Sawmill Co. lost 9,000,000 ft. of lumber in their drying kiln last week.

H.G.R.

NEW WESTMINSTER, B.C., March 25, 1892.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE State of Michigan holds the first position in the production of lumber of any State in the American Union. The following compilation, however, covering the years 1885 to 1891, shows that, with the exception of the first-named year, the product of 1891 has been the lowest in seven years. The table I here append gives the product in both lumber and shingles:—

	Lumber.	Shingles.
1885.....	3,578,138,732	2,574,675,900
1886.....	3,984,117,175	2,988,124,232
1887.....	4,162,317,778	2,677,858,750
1888.....	4,292,189,014	2,846,201,000
1889.....	4,207,741,224	2,602,930,250
1890.....	4,085,767,849	2,469,878,750
1891.....	3,599,531,668	1,813,874,250

A comparison of stocks on hand shows as follows:—

	Lumber.	Shingles.
1885.....	1,252,940,251	211,229,500
1886.....	1,354,101,834	283,938,000
1887.....	1,428,224,132	195,218,000
1888.....	1,463,226,000	335,952,256
1889.....	1,447,593,997	372,807,250
1890.....	1,436,878,279	376,875,750
1891.....	1,218,683,167	199,211,250

A reduced output is also shown in staves and headings for 1891, compared with 1890. The figures for the former tell of the manufacture on the mills of the Saginaw River of 28,179,492 pine staves and 1,639,417 sets of heading for salt packages, while in 1890 there were produced 31,981,191 staves and 2,922,122 sets of heading, showing a decrease of 3,801,699 staves and 1,282,705 sets of heading.

While on the line of statistics I might here append some interesting figures showing how rapidly rail shipments of lumber are growing on the shipments by water. Take the figures of the past five years to illustrate:—

Year.	Water.	Rail.
1887.....	486,185,000	261,900,000
1888.....	451,391,000	304,362,000
1889.....	432,130,000	352,500,000
1890.....	409,872,000	401,847,000
1891.....	404,577,000	405,258,000

FREE LUMBER TALK.

The lumbermen's convention at Washington has been a subject of more or less conversation among the representatives of the trade here. It can hardly be said that many of them entuse to the boiling point after the manner of the Northwestern Lumberman. They are just a little too level-headed for that sort of thing. We have lumbermen who would like to see free lumber the policy of this country, and there are others who would welcome an increased duty on all lumber coming from your country. But the trade is by no means unanimous on any of these matters. The truth is, and the meagre interest shown by the small attendance at Washington confirms this view, the trade generally do not view with serious alarm a free lumber bill should it become law. As I have already suggested, it might pinch a little in some quarters, but these drawbacks would be offset in part, if not exceeded, by advantages in other directions.

PIECE STUFF.

The manufacture of egg cases is one of the adjuncts of the lumber business carried on extensively in Saginaw and other parts of the State.

The Mackinac division of the Michigan Central have found it necessary to increase the locomotive service owing to the heavy demands of the log traffic.

Ten thousand dollars is the handsome donation of lumberman John F. Eddy, of Bay City, toward Buchtel College, at Akron, O., to be expended for a science building.

SAGINAW, MICH., March 26, 1892.

PICA.

LUMBER UNDER COVER.

IT is getting to be an acknowledged fact that any kind of lumber left exposed to the weather after one summer in the open air will deteriorate very rapidly, the actual loss by this means ranging from 2½ to 10 per cent., according to the kind of wood and the season of exposure. It is an open question whether the loss does not commence with the first day's exposure. Authorities differ on this head, some claiming that with the exception of a very limited number of kinds of timber all lumber is better for open air exposure for a certain length of time, varying with circumstances, such as thickness, variety of timber, amount of sap, etc., but more especially according to the season, which in turn varies both with latitude and longitude. The area of the hardwoods is so extensive that all these conditions enter into the question so far as it pertains to them.

The statement of a few practical facts on this subject will serve to help settle the question. It is generally known that the sap part of any wood is the first to decay under ordinary circumstances; but it is not so well known that if the sap wood were kept in an absolutely dry atmosphere it would rot no sooner than the rest of the tree. Theoretically there can be no decay without moisture coupled with sufficient heat to produce a certain chemical action.

Every one knows that a quantity of green or wet lumber, thrown into a solid pile, if left for any time on a reasonably warm day, especially if the weather be cloudy or the air be heavily charged with moisture, will commence to take on a green or black stain. This stain will penetrate the entire sap portion of the lumber in a short time, varying with the temperature and humidity, and with many kinds of lumber will spread to the heart portion, becoming in all cases indelible.

This green or black stain is in reality a mold or fungoid growth, which is the first visible evidence of the chemical changes leading to decay. For all practical purposes the solid matter in all hardwoods is the same, varying only in proportion, and but slightly in a long list. Thus the variations in timber are caused not by differences in solid matter, but by the different arrangement of the particles of that matter coupled with the fluid or volatile elements which are the life-blood of the tree.

The growing tree is a complete chemical laboratory within itself, working day and night building up trunk, branches and leaves. Often the work goes on for some time after the tree is felled; but practically a complete change of chemical action takes place shortly after that event, and if the tree or the lumber into which it may be made is left unprotected, exposed to the elements, wind, rain, snow and alternating heat and cold, the chemical action of the fluids tends to the destruction rather than to the building up of the fibre.

Leave the tree in the damp, shaded woods, stretched upon the ground, from which added moisture may be drawn, with the temperature above forty-five degrees, and the work of destruction, beginning with the sap portion and the bark, proceeds rapidly. Place the trunk in a position where external moisture will be excluded, and where, by a circulation of dry air, the fluids and volatile matter may be easily and freely evaporated, and the destructive influences are reduced to a great extent. Remove the bark, saw the log into lumber and you reduce them to a minimum.

Change the location of that tree trunk or lumber to the open air, where it will be subjected to all the influences of the variable climate of the temperate zone, and the destructive forces are at once stimulated to renewed action.

This covers the whole question of protecting lumber by covering or sheds. Even if it be conceded that it is better dried in the open air, there can be no question that so soon as the drying is accomplished the stock will lose value rapidly thereafter if still left exposed. So well known is this fact that buyers of dry stock to hold for re-selling, count in this prospective loss as part of the cost of handling.

The dealers in costly foreign woods have long realized this fact, and invariably house their stock in such a manner as to protect it from the weather as much as possible without using artificial means.

UTILITY OF THE EMERY-WHEEL IN WORKSHOPS.

BY J. H. MINER.

HOW few machinists there be that know the utility of the emery-wheel, and what it is adapted to. One-half of the machine shops throughout the country have nothing more than a grindstone, and that is used only for tool sharpening. In all branches of repair and fitting there is more or less chipping, filing, etc. The emery-wheel will reduce the part in the time it takes to tighten the work in the vice in many cases, leaves the part finished a flatter face than is possible to do with the file. In fitting bolts and boxes of the ordinary class, a dozen can be fitted while one piece can be by chipping. In rough castings there is much annoyance in chipping from the particles of sand which only adds to the wheel's cutting. In fitting up keys and outside work on straps, etc., it is superior to the shaper in time saving. What the emery-wheel will do is limited only to the skill of the operator. The setting, care of and the right grade of wheel for the work is a very important item, and is looked after but little. A wheel should be hung on a heavy, true and well-balanced mandrel, should have a rigid rest for the work so adjusted as to be kept right up with the wear of the wheel where side-dressing is necessary, as in turning up a flat surface. The rest should be adjustable sidewise. A good wheel requires but little dressing to be kept true, if rightly set up. A rickety stand and rest condemns the wheel. Instead of cutting free, it runs with a chatter and shock of a battery, emits a lot of dust not very advisable to consumptives, while the operator's eyes may be partly filled; and this is not all, a broken wheel is the result nine times out of ten in such cases. No work should be allowed to rock, nor should it be held loosely to the wheel. Hold it firm, and a well set wheel will reduce more in one minute than a file or chisel in five. Collars should be one-third the diameter of the wheel, with pasteboard washers between collar and wheel. See that wheel does not fit the mandrel tight, if so, heat from the bearing through any neglect might burst the wheel. Wheels as a general thing are not belted heavy enough to work without slipping. Light single leather, one-quarter in width to the size of the wheel is not too much for stands. The work must be kept moving for fast cutting or the wheel will glaze quickly by fusing the metal. To get good results, wheels must be of the proper grade. For edging cast-iron or steel, taking gates and sprues off castings, a coarse hard wheel should be used. Such a wheel is not suitable for flat or surface work as it will glaze quickly, while a soft wheel would not edge-grind, but would wear and crumble off. For general use a medium hard and coarse wheel is best. For soft metals as malleable iron, brass and tool grinding, a medium soft wheel is best. A hard wheel on planer and moulding bits will draw the temper if great care is not exercised. Where much grinding is necessary in a short time, the article should be cooled frequently, which prevents glazing, keeping up free cutting.

There are many poor class wheels in the market. Users, by changing, can determine this to their satisfaction. Aside from the ordinary stand, the emery-wheel is used for various machine work, as planers, pulley grinders, and finishing up shafting for special work.

It is indispensable in car works for grinding car wheels. For chilled castings and case-hardened bearings the emery-wheel has no equal, in fact, no substitute can compare with it. The simplest form of dresser, which is very good, is a one-half or five-eighths bolt with about a dozen thin washers; slip on a loose nut and, with the thumb and finger of the left hand, hold the blank nut to the washers, leaving just sufficient room to allow them to revolve. You can dress your wheel in any desired shape very quickly. For truing the wheel, allow the head of the bolt to rest on the support before the wheel and by ruling it to the desired position the wheel can be trued. The bolt should be eight or ten inches long, and may have a handle screwed on in place of a nut. When washers are worn they can be quickly renewed. The shorter the angle that the washers will revolve at, the quicker and better the work will be done; to revolve with the wheel in the same ratio will accomplish but little.

New Brunswick sawmills have commenced operations.

A BIT OF CANADIAN HISTORY.

PORTAGE-DU-FORT, in the county of Pontac, Que., will be the scene during the coming summer of a big demonstration. The occasion will be the unveiling of the monument which is to be erected over the grave of Cadieux, a French-Canadian voyageur, whose name is familiar to the ear of every voyageur, as well as every French-Canadian in the eastern part of Canada. A brief history of the death of Cadieux, as told by an Ottawa journalist, will be of interest to the public. In 1801 Cadieux, together with three other voyageurs, were making an ascent of the Ottawa River. When they arrived at the head of the Calumet Island, where there is a heavy shute of water, which is known as a very treacherous spot by all rivermen, their provisions ran out. Cadieux went into the bush at the head of the island in search of game, leaving his three companions on the shore in charge of his birch bark canoe. He was gone but a short time when a band of Iroquois Indians, who at that time were at war with the white men, were noticed coming down the river in canoes. The Indians had gained sight of them, and were rapidly approaching the island before the voyageurs took the alarm. There was no time to search for Cadieux, so, hastily shoving off the canoe, they made for the Quebec shore, thinking they could reach Portage-du-Fort, which was at that time a Hudson Bay fort. The current, however, proved too strong for them, and in spite of their strenuous efforts they were borne to the brink of the rapids. Over the shute they went, while their pursuers thought the men had only met with death in a different manner from what had been intended for them. This, however, was not the case, and the men reached the shore in safety about a mile below. For two long days they remained where they had landed, anxiously awaiting the appearance of Cadieux, subsisting on what they could find in the way of game and berries. On the third day they made their way to the spot from which they had been so hastily driven. But a brief search in the surrounding bush revealed to them their lost companion, in a most pitiable state. Hunger and exposure had done their work, and Cadieux was breathing his last, and all their efforts to revive him were of no avail. One slight smile of recognition and he died in the arms of those with whom he had shared the trials and dangers of a river life in an unsettled country. On looking around to find a suitable spot to bury the body, they found close to his side a large piece of birch bark, on which was scratched a few lines in French, which to this day forms the most popular song of the Canadian river men. It is known as "Complainte de Cadieux," and is to be found in N. S. Gagnon's "Chansons Canadien." There they buried the remains of Cadieux, erected a rude wooden cross and surrounded the grave with a cedar fence. For some years past the parish priests and citizens of Fort Colonge have been obliged to renew the cross every second year, as the river men, when passing the grave, invariably chipped out a piece of the cross to wear as a talisman against the many accidents incident to a bushman's life. This fall the cross erected only two years before had disappeared, having been carried away piece by piece, and all that remains at present to indicate the spot which holds the remains of Cadieux is a piece of the cedar fence, about eighteen inches long, which has escaped the searching eyes of the voyageurs. Even the trees which surround the spot bear witness to the number of visitors, as there are, it is estimated, over 20,000 signatures and cross marks indented upon them. In such esteem is the memory of Cadieux held that many of the voyageurs look upon him as a patron saint, and the unveiling of his monument will no doubt be an event long to be remembered by the rivermen of the Ottawa district.

We talk of the rough character of the average bushman. Certainly his surroundings do not give much encouragement to the cultivation of the esthetic side of his nature. But does not the little incident cited here show a very noble side to that life; tell of a big-heartedness—a thoughtfulness for a fallen comrade—that would do credit to the most cultivated mind? The LUMBERMAN thinks so.

McNicol's sash and door factory, Renfrew, Ont., was destroyed by fire on the 26th ult.

TRADE REVIEW.

Office of CANADA LUMBERMAN, 1 March 31, 1892.

THE GENERAL SURVEY.

TRADE during the month has been in the region of the future rather than the immediate present. March has not been a busy month for lumber, but the indications point to a fairly active season so soon as navigation gets in full swing and the weather will permit of outside work in building.

In country sections of Ontario business is likely to be fair, yet without any particular boom. Our trade with the United States shows a marked increase, and is likely to continue steadily in the same direction. In the Maritime provinces, where trade for the past year has been dull, hope is not yet very bright regarding the future.

NEW BRUNSWICK.

There is not much movement in trade in this province as yet, though with the spruce market bracing up in some degree, and stocks in the English market reported low, an improved trade is at least hoped for this year.

QUEBEC.

The harbor commissioners of Quebec in their annual report furnish some figures which, though supplied in the main by the LUMBERMAN in its annual review, will be found valuable as coming from this particular source. According to this report the quantity of square white pine in stock at the first of the year was 2,943,680 cubic feet; waney, 2,048,898 feet; red pine, 348,165; oak, 522,040; elm, 102,608; ash, 21,357; birch, 13,177; basswood, 258; tamarack, 5,686; spruce, 483; black walnut, 4,122; whitewood, 9,153; butternut, 187; maple, 2,609; hickory, 3,296; hemlock, 11,416; pine deals, 207,880 standard, merchantable, 65,902, cull; spruce deals, 1,121,339 standard, merchantable, 78,611 standard; pine and spruce plank, 1, 1 1/4, 1 1/2 and 2 inch, 7,656,381 feet; hardwood plank, 345,846; hemlock and tamarack deals, 1,533,190. Business has not yet shown any marked signs of revival, but the belief is that it will improve when the shipping season actively opens.

MANITOBA.

Whilst the people of the Prairie province are not anticipating any unhealthy boom in building, they have, from the present conditions of the country, good reason to expect a brisk season's business. Immigration will no doubt be on a considerable scale this summer; in fact, we are commencing to know something about it already, and the class of men and women who are deciding to make this new country their future home apparently possess not alone sufficient capital to give them a start, but also are of a character personally to add the right kind of strength to the communities where they will settle.

BRITISH COLUMBIA.

Lumber business on the Coast continues quiet. The hope is entertained that the turn will soon come, but as yet it is not here. A representative of one of the largest lumber companies returned from Australia during the month. He found trade very depressed. This is an important field for British Columbia lumber, and until a revival takes place in this colony a hitherto profitable outlet for our forest products will be closed. All reports from the Antipodes confirm what the lumber representative cited states. There is said to be in Melbourne a stock of lumber equal to a year and a half's consumption. Whilst from this one point of trade things are not looking up overmuch, some better news comes from South America, where a good deal of lumber goes. In considering lumber matters on the Coast this is to be remembered that the capacity for doing a lumber trade is on a large scale, and even when trade is reported dull, which relatively it may be, yet a comparatively large business may be doing. The local market has been experiencing for a little while back some of the pleasantries of cutting prices, until now the Victoria lumber dealers have cried a halt and formed a combine. The following are the prices agreed upon: Rough lumber, per M., \$10; best quality dressed lumber, per M., \$18; second quality dressed lumber, per M., \$14; laths, per M., \$2.25; shingles, per M., \$2.25. Quotations are as follows for cargo lots for foreign shipment, being the prices of the Pacific Pine Lumber Association: Rough merchantable, ordinary sizes, in lengths to forty feet,

inclusive, \$9 per M. feet; rough deck plank, average length thirty-five feet, \$19; dressed flooring, \$17; pickets, \$9; laths, four feet, \$2.

UNITED STATES.

Writing of trade for the month just closed, and remembering that we are not yet "out of the woods" so far as the winter season is concerned there is no particular reason to grumble of trade at any leading lumber point. The movement of lumber has been impeded in part during the month because of snow storms that have prevailed over almost every part of the country. But this difficulty will quickly melt away under spring rains and summer suns. From almost everywhere come reports of stocks being short, and as a result prices are holding firm. There is certain to be a large demand for the better grades of pine, and for coarser grades there is likely to be a fair call. The spruce market is looking up and hardwoods are in active demand. Whilst on the one hand the continued cold weather of March had an untoward influence on the distribution of lumber, it has helped the loggers, and will reduce to a minimum the supply of logs to be left on the skids.

FOREIGN.

The wood trade in Great Britain does not look up. About the only consoling condition is the limited supplies of leading stocks on hand, which means that there must be some huying in the near future. The more sanguine spirits, however, are hopeful of a speedy resumption of active operations. Prices are fairly well maintained and those for the better grades of hardwood are decidedly firm. Black walnut logs and lumber are both in good request and can be readily disposed of at full prices. The lower grades are not wanted. At Liverpool consumption is satisfactory for the time of year, and recent arrivals light. The Scottish timber trade has been interrupted recently to a considerable extent by severe snow storms, but demand has been fairly steady and prices well maintained. Denny, Mott & Dickson, of London, Eng., in their latest wood market report, say: "The general lethargy which has marked the opening months of the year is becoming very disquieting to large holders of stocks, and is not conducive to the merchant on this side making forward contracts for import." A recent arrival at Liverpool is a cargo of Canadian goods, consisting chiefly of what in England is known as pine stocks, i.e., pine boards twelve inches wide and one and one-quarter inches thick. These boards are said to have been cut for the South American market, but shipped here instead. A public sale of logs at Hamburg, Germany, the latter part of February is reported to have been quite satisfactory in results, and is taken as indicative of a favorable market. In Australia trade is emphatically dull. There is some improvement in South America affairs.

TORONTO, ONT.

TORONTO, March 31, 1892.

CAR OR CARGO LOTS.

Table listing lumber prices for car or cargo lots in Toronto, including items like 1 1/4 in. cut up and better, 1 x 10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table listing yard quotations for various lumber types such as Mill cull hoards and scantling, Shipping cut boards, promiscuous widths, etc.

MONTREAL, QUE.

MONTREAL, March 31, 1892.

Table listing lumber prices for Montreal, including Pine, 1st qual., per M., \$35 00 40 00, Oak, 40 00 60 00, etc.

ST. JOHN, N.B.

ST. JOHN, March 31, 1892.

DEALS, BOARDS, SCANTLINGS, ETC.

Table listing prices for deals, boards, and scantlings in St. John, including Spruce deals, Pine, Deal ends, etc.

SHINGLES.

Table listing prices for shingles, including Spruce No. 1, Pine, etc.

CLAPBOARDS.

Table listing prices for clapboards, including Pine, extra, clears, 2nd clears, etc.

FLOORING, DRESSED.

Table listing prices for flooring, dressed, including 6 in., No. 1, 4 in., No. 1, etc.

MISCELLANEOUS.

Table listing miscellaneous lumber items like Staves, Heading 17 in. per pr, etc.

OTTAWA, ONT.

OTTAWA, March 31, 1892.

Table listing prices for Ottawa lumber, including Pine, 1st qual., Pine 2nd, etc.

QUEBEC, QUE.

QUEBEC, March 31, 1892.

WHITE PINE—IN THE RAFT.

Table listing prices for white pine in the raft, including For inferior and ordinary according to average, quality, etc., etc.

RED PINE—IN THE RAFT.

Table listing prices for red pine in the raft, including Measured off, according to average and quality, etc.

OAK—MICHIGAN AND OHIO.

Table listing prices for oak from Michigan and Ohio, including By the dram, according to average and quality, etc.

ELM.

Table listing prices for elm, including By the dram, according to average and quality, etc.

ASH.

Table listing prices for ash, including 14 inches and up, according to average and quality, etc.

BIRCH.

Table listing prices for birch, including 16 inch average, according to average and quality, etc.

TAMARACK.

Table listing prices for tamarack, including Square, according to size and quality, etc.

STAVES.

Table listing prices for staves, including Merchantable Pipe, according to quality and specification, etc.

DEALS.

Table listing prices for deals, including Bright, according to mill specification, \$115 to \$120 for 1st, etc.

BOSTON, MASS.

BOSTON, MASS., March 31.—This has been one of the quietest lumber points in the Union for several months. No power above or below seemed to be able to move things. As we approach closer to spring business fortunately shows some slight indications of improvement. Quite an active trade is shown in spruce. A good stock of white pine is in the hands of dealers, and whilst the demand is not large, prices are stiff. Prices on hemlock are easy. Shingle trade is more stirring than probably any other line, and prices steady.

WESTERN PINE—BY CAR LOAD.

Table listing prices for western pine by car load, including Uppers, 1 in., 1 1/2, 1 1/2 and 2 in., etc.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing prices for eastern pine cargo or car load, including Nos. 1 2 and 3, Clapboards, 4 ft., sap, etc.

SPRUCE—BY CARGO.

Table listing prices for spruce by cargo, including Scantling and plank, random cargoes, etc.

LATH.

Table listing prices for lath, including Spruce by cargo, etc.

SHINGLES.

Table listing prices for shingles, including Spruce, 18 in., extra, 4 00 4 25, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., March 31.—The encouraging winter trade done at this point is being followed by substantial signs of a lively spring opening. Stocks are well broken into and there will need to be an active sorting up to meet the immediate demand. Fine grades of white pine are emphatically short,

and the anticipation is that these better grades will be on the short side the season through.

Table with 2 columns: Item description (e.g., Three uppers, 1 1/4, 1 1/2 and 2 inch) and Price (\$45 00 @ 46 00).

Table with 2 columns: Item description (e.g., 1 in siding, cutting up) and Price (35 00 @ 40 00).

Table with 2 columns: Item description (e.g., 12 and 16 feet, mill run) and Price (20 00 23 00).

Table with 2 columns: Item description (e.g., 12 and 13 feet, mill run, mill culls out) and Price (19 00 20 00).

Table with 2 columns: Item description (e.g., Mill run, mill culls out) and Price (20 00 23 00).

Table with 2 columns: Item description (e.g., Dressing and better) and Price (25 00 30 00).

Table with 2 columns: Item description (e.g., 6, 7 or 8, mill run, mill culls out) and Price (19 00 21 00).

Table with 2 columns: Item description (e.g., 6, 7 or 8, drsg and better) and Price (24 00 28 00).

Table with 2 columns: Item description (e.g., XXX, 18 in pine) and Price (3 70 3 90).

Table with 2 columns: Item description (e.g., No. 1, 1 1/4) and Price (2 50 1 90).

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., March 31.—Better grades of lumber are altogether on the short side. This can hardly be considered other than a favorable outlook for spring trade.

Table with 2 columns: Item description (e.g., Uppers, 1, 1 1/4, 1 1/2 and 2) and Price (45 00).

Table with 2 columns: Item description (e.g., 1x10 and 12 in) and Price (13 00).

Table with 2 columns: Item description (e.g., 12 in. XXX, clear) and Price (4 00).

Table with 2 columns: Item description (e.g., No. 1, 1 1/4) and Price (2 50).

ALBANY, N.Y.

ALBANY, N.Y., March 31.—Not a few hopeful signs tell of an active spring trade. Trade has been very encouraging throughout the present month, and with navigation about opening there can be no doubt of increased activity in lumber.

Table with 2 columns: Item description (e.g., 2 1/2 in and p. 2000) and Price (\$50).

Table with 2 columns: Item description (e.g., Sawed Pine, ex. XXXX) and Price (\$4 35 \$4 50).

Table with 2 columns: Item description (e.g., Pine) and Price (\$2 25).

SAGINAW, MICH.

SAGINAW, MICH., March 31.—A well-known commission man has expressed the opinion that the outlook for spring is unusually promising. The month of June will be no more than reached before dealers will have run ashore on regular stocks.

Table with 2 columns: Item description (e.g., Uppers, 1, 1 1/4 and 1 1/2) and Price (45 00).

Table with 2 columns: Item description (e.g., Clear, 1/2 in) and Price (23 00).

Table with 2 columns: Item description (e.g., 2x4 to 10x10, 12, 14 and 16 ft) and Price (12 00).

Table with 2 columns: Item description (e.g., XXX 18 in. Climax) and Price (3 60).

Table with 2 columns: Item description (e.g., XXX Saginaw) and Price (3 40).

Table with 2 columns: Item description (e.g., Lath, No 1, white pine) and Price (2 00).

NEW YORK CITY.

NEW YORK, March 31.—The trade are just a little disappointed that the expected revival in lumber has not commenced to show itself. Business, in fact, this month has been altogether slow.

Table with 2 columns: Item description (e.g., Uppers, 1 in) and Price (\$44 00 @ 45 00).

WABASH LINE.

If you are going to Chicago, St. Louis, Kansas City, Mexico or California, take the great Wabash Route, the banner line to the west.

THE Province of Quebec Lottery holds an anomalous position with the lawmakers of our country, being legalized by the Government of Quebec and possessing its complete protection.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber."

THE NEWS.

CANADA.

George H. Deschene, sawmill, etc., St. Laphare, Que. has assigned.

Preparations for starting the "drives" in the Parry Sound district have commenced.

Joseph Lyons, a chopper of Carberry, Man., was struck with a falling tree and received a severe cut in the head.

Robertson & Hackett, of Victoria, B.C., have bought a complete planing outfit of J. A. Fay & Co's machinery.

Blonde Bros., sawmill, Chatham, Ont., have admitted J. Dowling into partnership under style Blonde Bros. & Dowling.

Hughitt & McIntyre, of Genoa, B.C., have bought a heavy, fast-feed flooring machine, of the Hoyt Bros. Company's make.

George Veitch's saw and stave mill, Clifford, Ont., has been burned, with a hundred thousand staves; loss, \$600; insured.

Albert Dymont, son of N. Dymont, lumberman, of Barrie, Ont., is to assume the management of the Dymont Mill Co., at Thessalon.

John McCallum, a farmer residing near Tiverton, Ont., lost his life whilst loading a sleigh with sawlogs; the logs slipped and struck him on the back.

The Montreal and Kingston Forwarding Co. are asking for a reduction of the canal tolls upon lumber passing through the Rideau and St. Lawrence canals.

Thomas McNeal, builder, of Markdale, Ont., has sold his sash and door factory at this place, and removed to Brandon, Man., where he has a large building trade.

Mr. Alexander McLaren, of Buckingham, Que., son of the late James McLaren, has been elected first vice-president and general manager of the Central Ontario Railway.

The Pacific Coast Lumber Co., at Lulu Island, opposite New Westminster, B.C., are putting in a shingle mill, supplied by the Wm. Hamilton Manufacturing Co., of Peterboro.

Dick & Banning's mill at Keewatin, Ont., is being overhauled preparatory to the season's run. Manager Newell expects to start up early in April, and has a cut of 11,000,000 feet in view.

The following financial troubles are reported in lumber circles in Toronto: Thomas Brown, contractor, assigned, owes \$1,700; George Davie, real estate, liabilities \$35,000; assets nominally \$37,000.

R. S. Thompson, of Glenboro, Man., has sold out his lumber yard to A. R. Stevens, of the same place. Mr. Thompson still continues the furniture and implement business, and will also handle vehicles of all kinds in future.

James P. Mitchell, one of the large lumber operators of Nova Scotia, will put in 2,000,000 feet on the Port Midway waters this season, and the Round Hill Co., operating on the Paradise waters, will receive an almost equal quantity.

The British barque Mistletoe, 821 tons, Captain Smith, arrived in Royal Roads, Vancouver, ninety days out from Buenos Ayres. She is under charter to load lumber for the United States naval yard at Wilmington, Delaware, at the Hastings Mill, B.C.

The planing mill at 17 Bartlett Avenue, Toronto, owned by James L. Hughes and operated by J. S. Williams, was destroyed a week ago by fire. The building was uninsured, but on the machinery and stock there was \$5,000. The damage is placed at \$3,000.

A meeting of the creditors of Dougall McBrayne, planing mill owner at Blenheim, was held a short time ago, at which a statement was submitted showing liabilities of \$4,500. Of this sum \$3,000 was secured by mortgage on machinery and real estate. As the creditors could not agree upon a plan of working the concern, nothing was done. Should those secured take possession outsiders will not be able to realize anything.

It is estimated that there will be about 200,000 railway ties and about 1,000,000 paving posts got out on the Manitoulin Island, Ont., this winter. This estimate is made by men who have been pretty well over the ground, and have had some years of experience in the business, so that it may be taken as pretty reliable. There will also be several million feet of pine cut on the western end of the island this season.

Mr. Joseph Sproat, of Wahnapeetae, near Sudbury, Algoma, tells of the scaling of an immense load of sawlogs. This load consisted of twenty-two logs which scaled 11,415 feet. These logs, with two men on the load, were drawn at one load a distance of one and a-half miles by one pair of horses, at the Emery Lumber Company's lumber camp. The team was driven by Mr. William Hunter and the scale of the logs is certified by the scaler and the foreman of the camp.

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
"	"	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
"	"	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	"
"	"	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	"
"	"	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 40m, Lath 30m
Muskoka Mills, Ont.	Penetang	Muskoka Mill and Lumber Co.	2 Saw, Sh. and Lath Mls., W. Pine, Ced., Whol.	Wat., Cir., Gang and Band, 110m
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	"
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Wiaraton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 16m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	"
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	"
Barrie, Ont.	Utterson	Burton Bros.	Lumber, Wholesale and Retail	"
Byng Inlet, Ont.	"	Georgian Bay Consol. Lumber Co.	Sawmill, Pine, Hemlock, Birch	Steam, Circular, 20m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	"
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	"
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	"
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
"	"	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	"
Little Current, Ont.	Sudbury	Charlton, J. & T.	Sawmill, Pine, Ash, Birch, Oak, Wholesale	Steam, Circular, 25m
"	"	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
"	"	Howry, J. W. & Sons	Lumber, Wholesale and Retail	"
London, Ont.	London	Gordon, James	Lumber, Ash, Elm, Maple	"
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Midland, Ont.	Midland	Peters & Cain	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 15m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	"
Norman, Ont.	Norman	CAMERON & KENNEDY	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 4m
"	"	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	"
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	"
"	"	Donogh & Oliver	Lumber, Wholesale	Com.
"	"	Gall, Anderson & Co.	Lumber, Pine and Hardwoods, Wholesale	Com.
"	"	Ontario Lumber Co.	Lumber, Wholesale	"
"	"	Shannon Shingle Manufacturing Co.	Shingle Mill, Pine, Cedar	Steam, 8m
"	"	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Wiaraton, Ont.	Wiaraton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Chaudiere Mills, Que.	Chaudiere Stn.	Breaky, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdws., Whol.	Steam, Circular and Band, 50m
"	"	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin. Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
"	"	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	"	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

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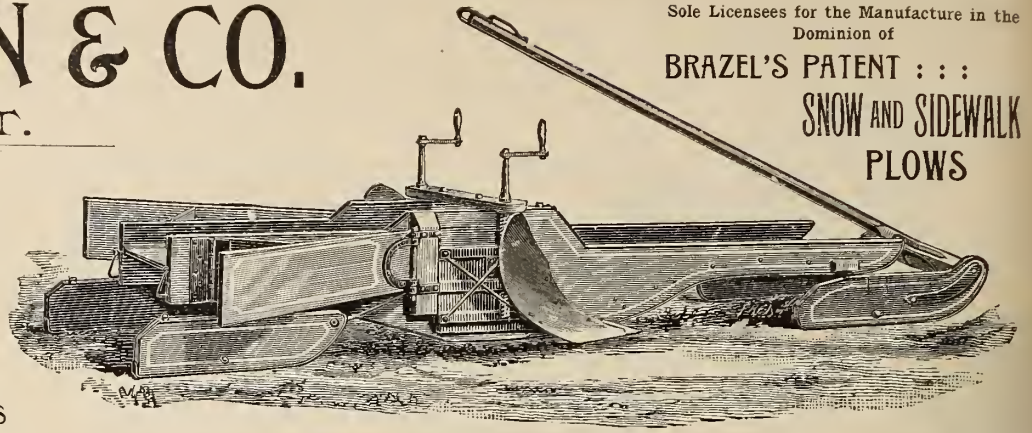
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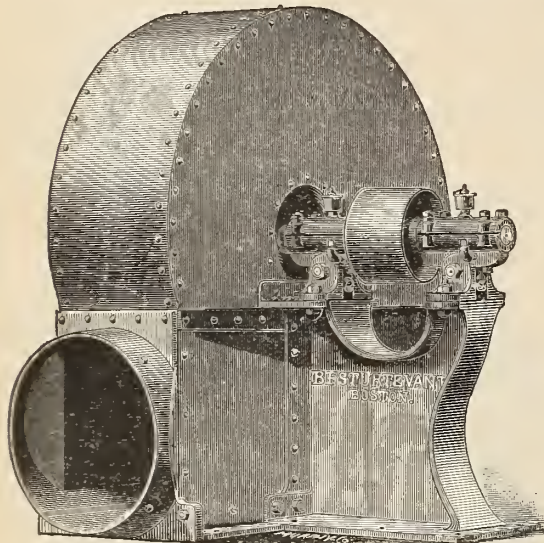
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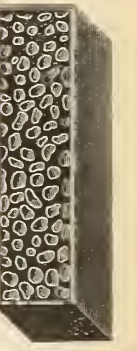
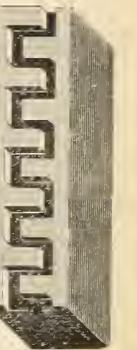
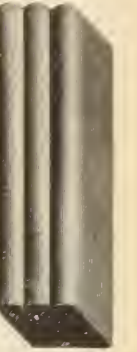
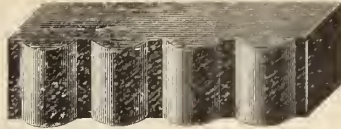
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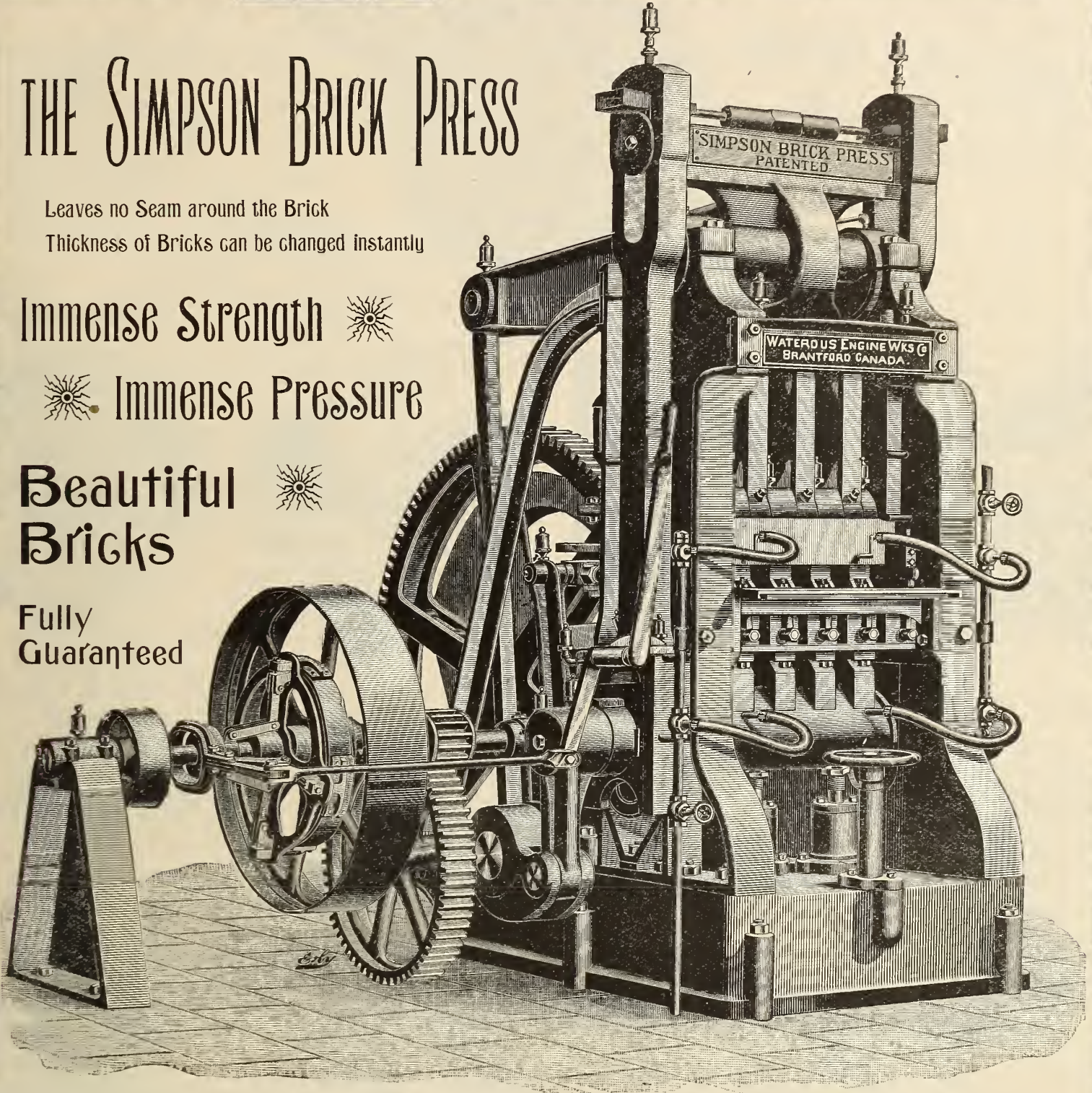
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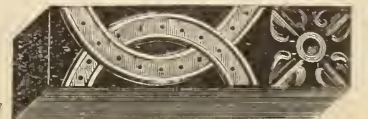
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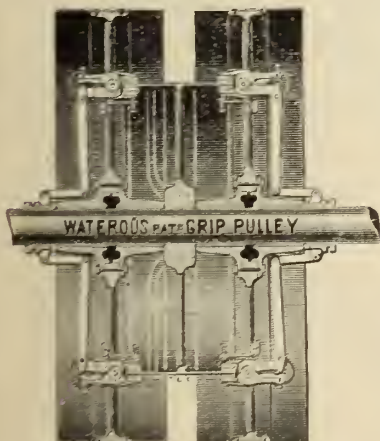
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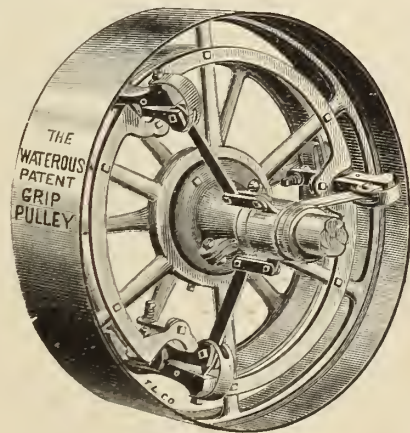
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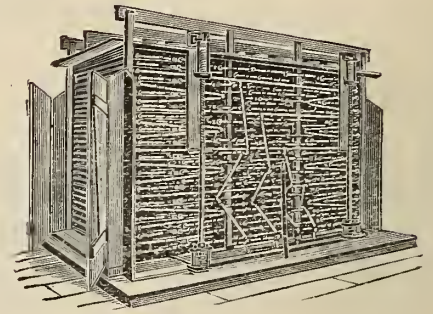
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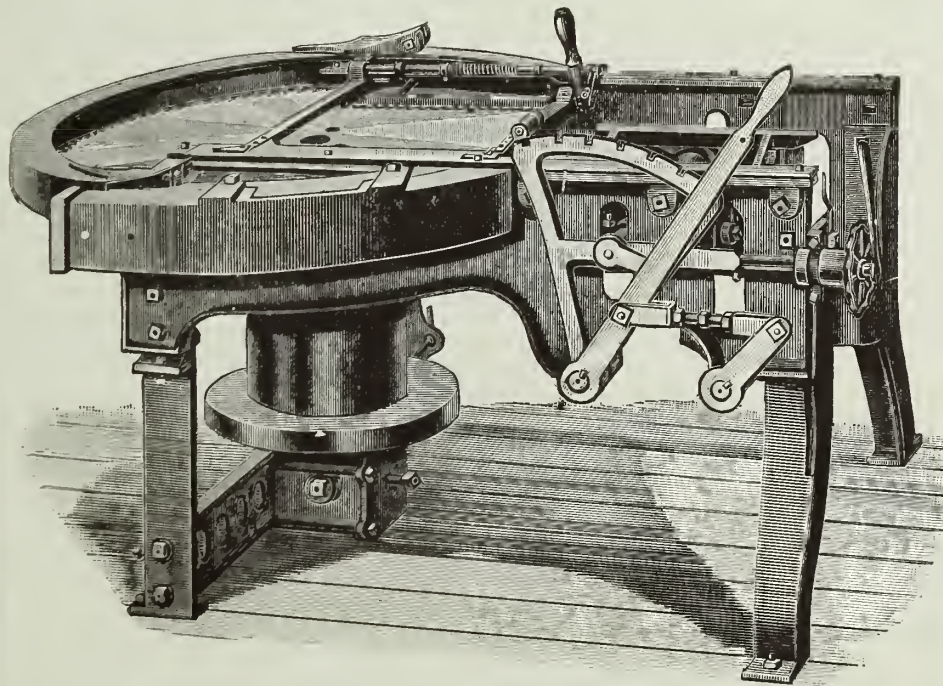
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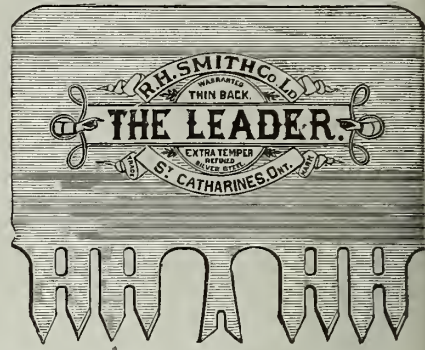
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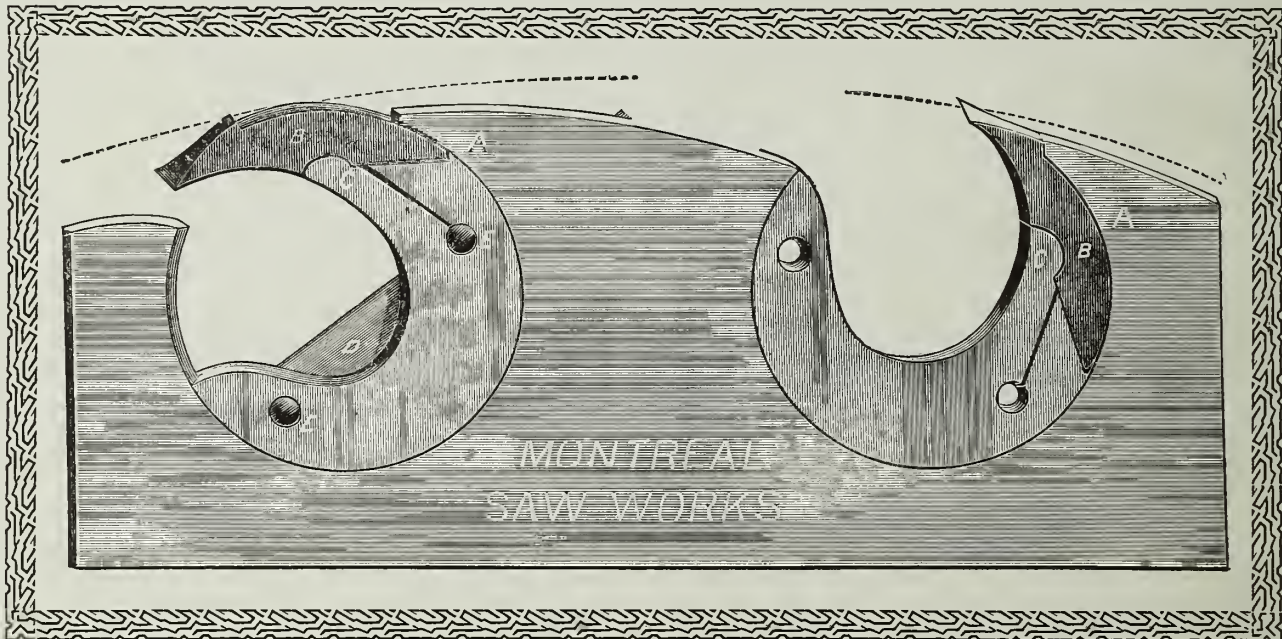
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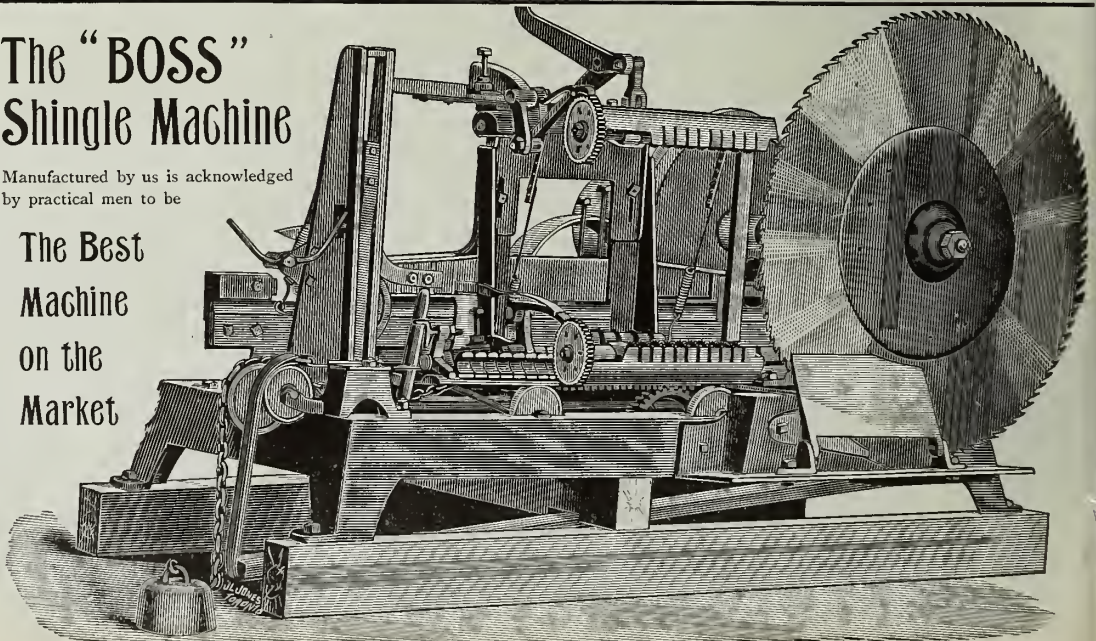
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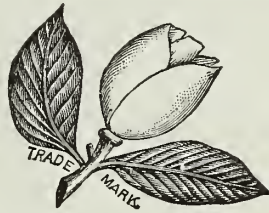
VOLUME XIII. }
NUMBER 5. }

TORONTO, ONT., MAY, 1892

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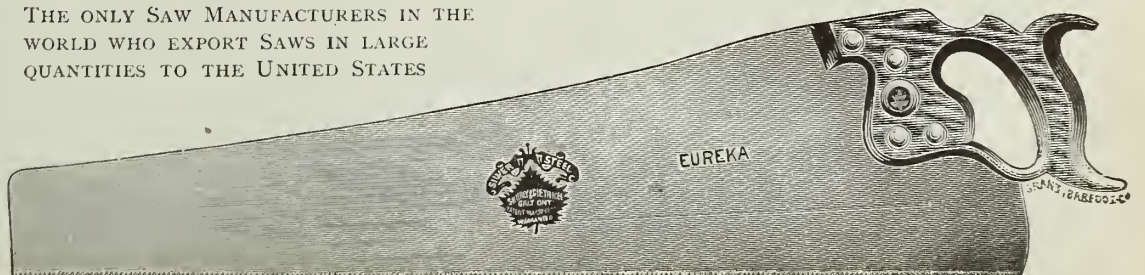
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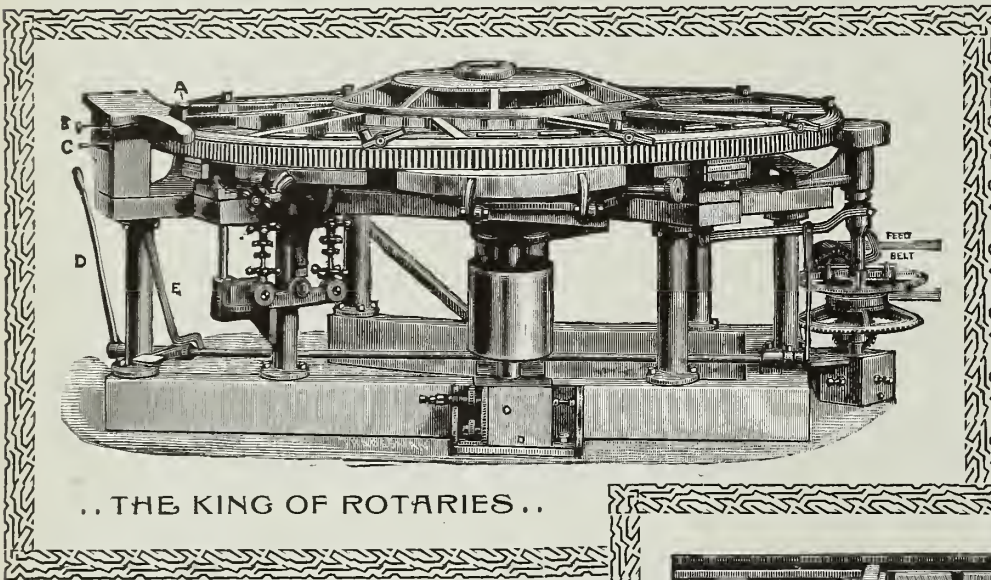


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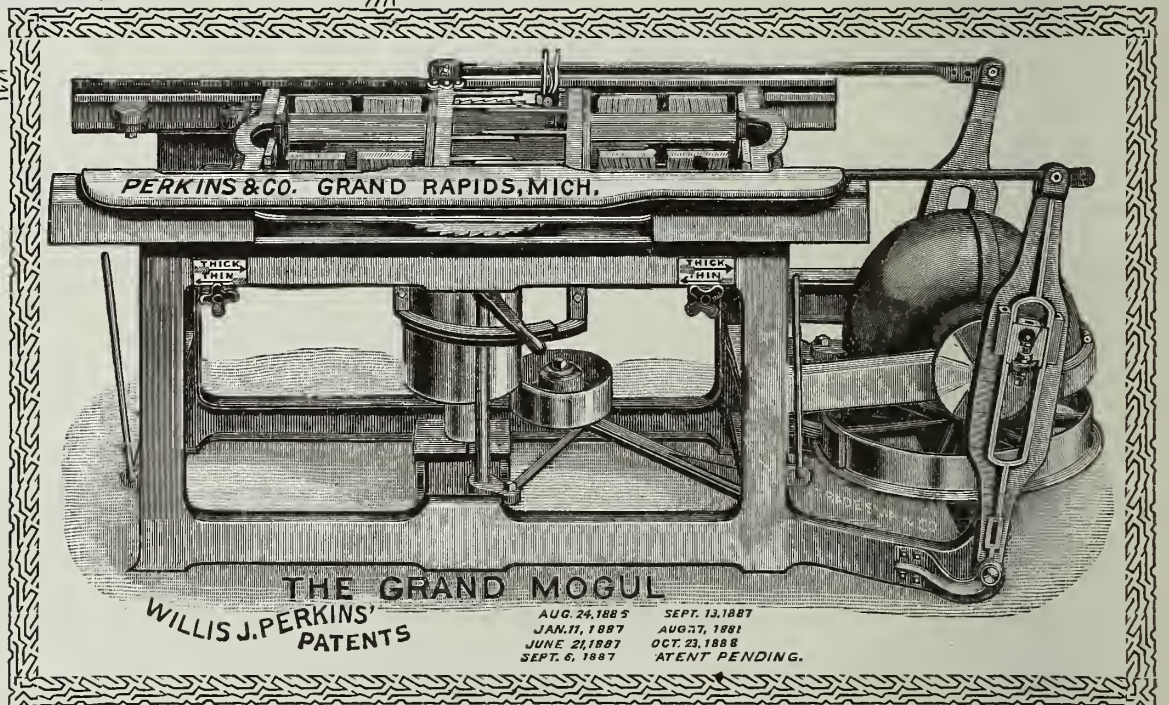


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THE CANADA LUMBERMAN

VOLUME XIII.
NUMBER 5.

TORONTO, ONT., MAY, 1892

(TERMS, \$1.00 PER YEAR
IN ADVANCE.)

CHARACTER SKETCH.

HON. J. KEWLEY WARD.

"Seest thou a man diligent in his business? he shall stand before kings."
—Proverbs of Solomon.

IT comes to comparatively few men to recount the achievements of half a century in one particular line of work. Gladstone is a notable exception in the walks of the statesman; Von Moltke in military affairs; and the late Cardinal Manning in the work of the Church. Years have been added unto years in their individual callings. We tell in the following lines the life story of Hon. J. K. Ward, of Montreal, now at the age of seventy-three years, who has spent fifty-six of these as a lumberman.

Mr. J. Kewley Ward was born in the Isle of Man, in 1819, of English and Manx parents. His course in life, as after events have proven, was shaped when, at an early age, he was apprenticed to the trade of carpenter and joiner. Having completed his tenure of apprenticeship he spent a year in England working at his trade. In 1842, now fifty years ago, he emigrated to the United States. For a time after his arrival in the new world, he wandered around to some extent, engaging with energy and faithfulness in any honorable work that came in his way. In 1845 he located in Troy, N.Y., securing a position in a planing mill, owned by the late John Gibson, of Albany, N.Y. It was there that he obtained his first experience in handling lumber, a branch of business in which in after years he was to occupy a conspicuous position. At the end of three years he entered into business on his own account by renting from the owner the mill in which he had given three years of faithful service. It was a plucky undertaking for the young man, but he rose equal to the occasion. From boyhood Mr. Ward had tasted of the sweets of labor. Work did not frighten him, nor could difficulties overpower him. He believed with D'Avenanti: "Rich are the diligent, who can command time, nature's stock? and could his hour-glass fall, would, as for seeds of stars, stoop for the sand, and by incessant labor gather all." He was his own book-keeper, amanuensis and office man-of-all-work, at the same time keeping three Woodworth planers doing their work making money for the mill, and not alone supervising, but doing in person much of the actual mechanical work of the shop.

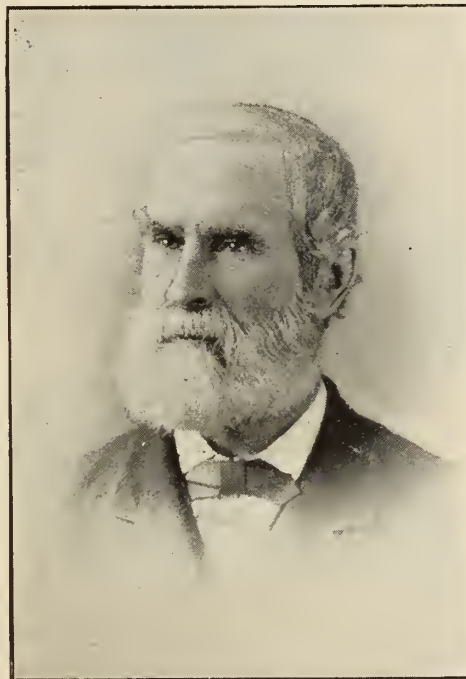
Three years of earnest toil along these lines brought to Mr. Ward success altogether beyond his expectations. He was yet prepared to assume further responsibilities, and harder work and move on to greater victories, and at this time entered into the manufacture of lumber, along with a son of his old employer, who had built one of the best steam sawmills in Steubin county, in southwestern New York. Increased experience was now added to Mr. Ward's store of lumber knowledge. He learned what was meant by shanty life, making logs and driving them, as all logs for the firm's mill had to be taken along the Tioga river down to the Chemung, where the mill was situated. Unable to secure a sufficient supply of timber without a larger expenditure of capital than the firm was able to control, Mr. Ward determined not to jeopardize his future by entering into ventures beyond his depth, and wisely pulled up stakes in Steubin county.

This step was immediately followed by a decision, as he has expressed it himself, "to try Canada." This was in 1853, and Mr. Ward has never had occasion to regret the choice. Prospecting for a time, he at last bought a mill and property on the Maskinonge river, in the province of Quebec, where he spent ten years lumbering, driving and sawing, adding during these years somewhat to his possessions. In 1863 he moved to Three Rivers and took the mills and limits built and owned by Norcross, Philips & Co. Running these successfully for

several years, he afterwards sold out to an American firm from Williamsport, Pa.

The year 1870 found Mr. Ward a resident of Montreal. Lumbering operations were commenced on the river Rouge, a tributary of the Ottawa, where he has lumbered ever since. The sawmill is situated in the vicinity of the Lachine canal, and the logs are rafted through the Long Sault, the lake of Two Mountains, and along the Lachine canal to the mill. The annual cut of the mill is about 15,000,000 feet.

"Me tink dat all men love lazy" is the expressive way in which a foreign tongue has sized up the chief love of ordinary mortals. The record of Mr. Ward's career shows plainly "dat he no love lazy." At his advanced age he is still active in business pursuits; at the same time, as a good citizen, giving liberally of his time and means to many important undertakings of a public character. Four years ago he was named a Legislative Councillor of his adopted province, probably the first case recorded where a practical mechanic, a man who had sprung directly from the working classes, and a Manxman, has held this exalted position. The "Protestant Hospital for the Insane," of Montreal, is an institu-



HON. J. K. WARD.

tion in which Mr. Ward is deeply interested, and which owes much to his generous care. Briefly: Whatever his hand findeth to do, he does with all his might. On another page we publish an able paper on "Canadian Woods," by Mr. Ward.

SAWING HARDWOOD.

TO successfully saw hardwood, says a writer in our bright little contemporary, *Hardwood*, requires first, a saw adapted to the purpose and to the power of the mill. Hardwood does not heat a saw because it is hard, but because the saw is not suited to its work and in many cases not fitted up rightly. Sawyers know that a saw cuts much better while cutting through the bark, unless it is hickory or a similar species.

It is when a log is squared up, as is now generally done, that the best lumber is made as a rule, and right here the saw runs badly. It enters the cut right, goes straight for a few feet and then begins to snake and heat on the rim. The carriage is giggered back, the saw cooled and the process repeated, the best timber being spoiled in sawing. When the heart is approached the saw begins to run better.

I am inclined to take the part of sawyers. They are often accused and abused when they should not be. No man under the sun can run a saw that is not adapted to the work in hardwood.

Now, what constitutes the right kind of a saw? Any millman of experience ought to know. First, all log saws will do more and better work with as few teeth as possible, other things considered. That is, a thin saw requires more teeth than a thick one. A filer who cannot put a corner on a tooth so it will stay, must have more teeth in his saw. Bent or spring set requires more teeth. A man in the dark is apt to imitate his successful neighbour, who may be running sixty teeth on four or five inch feed. The man in trouble is at once caught with the running of the saw, and observing that it has more teeth, concludes that a saw of this kind would work on his mill. But not so. He has limited power, while his neighbour has ample to make the saw take a large feed.

For ordinary work fifteen teeth for every inch of feed are sufficient on an eight-gauge saw; a ten-gauge saw should have eighteen and a seven-gauge twelve teeth. If a saw runs on one-inch feed fifteen teeth are ample; if it has a two-inch feed it will require thirty teeth, and so on. They must be filed square, have good corners, and then the saw will be in proper shape so far as the teeth and fitting of the points are concerned.

For an eight-gauge saw I would recommend not larger than a $\frac{3}{4}$ -inch throat to teeth, so as to chamber the dust well. The whole trouble often arises from the saw tooth not chambering the dust. Why? Because too many teeth cut the dust too fine, and instead of packing it into the throat of the teeth to be carried out of the cut, it passes by between the saw and the log, packs firmly against the log and the rim and heats the saw. If all hardwood sawyers will take notice they will find that when their saw heats as mentioned the dust will be packed as nicely to the side of the log as a plaster. If each tooth had cut a trifle more the dust would have been coarser and more in the shape of a chip and would have chambered nicely, and the saw would not have been heated and the lumber ruined. If you are running on two-inch feed and have a saw with 48 teeth, you will get along better with a spring set instead of a full swage tooth. If an eight-gauge saw has over 50 teeth on a light feed it will give trouble and would do better with every other tooth taken out.

A large, round gullet will not always work, as there is often too great a number of teeth for such a shape. Often inserted tooth saws give this trouble, no one knowing exactly where the trouble is until finally a new set of rings or throat pieces is put in and the saw works well, the trouble being that the old rings had worn off on each side and were convex in the centre, letting the dust slip by instead of carrying it of the cut.

Light power should have plenty of hook to the teeth, and where the carriage approaches the saw slowly a greater hook can also be carried. The set should be much less for hard wood than for soft. In sawing hard wood it is a common practice to run too much lead in the mandrel. All saws should be flat or lean a little to the log, and have sufficient lead so that the back of the saw does not scratch the cut in giggering. A log going to and fro against a saw sidewise will heat the saw and make crooked lumber, not when the saw is hot but when it is cold. This is a great oversight on the part of many mill owners, and the cause of much worry and vexation to the sawyer. The mill owner thinks a cool saw ought to always make a bee line. It will follow the same curve or crook in each board, making them of even thickness, but when a piece of square stuff is turned out, or the last piece on the carriage, it is found to be crooked and almost ruined.

ECONOMIC VALUES OF CANADIAN WOODS.

BY HON. J. K. WARD, MONTREAL, QUE.

WHAT I will have to say has been acquired in the rough school of experience, and not in academic halls or at the feet of wise men. Having spent more than half a century in the workshop, the forest, on lake and river and sawmill, I am sure you will not think it out of place or presumptuous on my part to try to impart some of the knowledge I may have acquired in the way indicated, though it be ever so little.

The trees indigenous to our country and climate are of two classes, the coniferous or evergreen and deciduous, or those that shed their leaves annually. Of the first-named class is the common cedar; one of the most useful in our woods. It abounds in nearly every part of the wooded country, is largely used for fence-rails, pickets, posts, sills for buildings, telegraph poles, railroad ties where the line is straight, it being considered too soft to resist the pressure on curves. It is very light and durable, has a pleasant aroma, said to be a protection against moths when used for drawers or chests. It also furnishes material for roof shingles for home use and exportation, a large quantity of which find their way into the United States from the eastern townships.

Not the least important of the evergreens is the hemlock. It exists in great quantities in almost every part of the province, and is usually found mixed with other woods; it is the cheapest class of sawed lumber that we have, is strong and durable when not exposed to the weather, and is used for rough work, such as sheathing, roof boards for shingling on, holding nails better than almost any other wood, joists, studding, stable flooring, and is said to be proof against rats gnawing through it on account of the prickly nature of the wood. But the great value of the tree when it is not too far from navigable water or rail, is in its bark, which is almost invaluable for tanning purposes, and realizes from four to seven dollars a cord alongside railroad or barge. Trees that are taken for their bark are usually cut down and stripped during the months of June and July, when it peels easily, but it is no pleasant task for those who have to do it, as the plague of black flies and mosquitoes prevailing at that time can only be appreciated by those who have had some experience in the bush at this particular season. The tree, after the bark is taken off, if not too far from river or mill, is made into sawlogs and sold to the lumbermen or taken to the mill and sawed on halves, the millman taking half for his labor, the farmer selling the other portion or hauling it home for his own use. The extract of hemlock is used in medicine for its narcotic properties.

The balsam or sapin of the French is of little commercial value. When large enough it is made into lumber. It is usually found in poor soil mixed with white spruce; it makes a nice ornamental tree, is graceful in shape, nicely pointed at the top, and of a very dark green color.

Our ordinary

WHITE SPRUCE,

one of the best known and most useful of the evergreens, is found in great plenty from Nova Scotia to the Ottawa, including the St. Lawrence and their tributaries, but is not often seen west of the former river until we reach Lake Superior and northern Manitoba. The wood of this tree is largely used for building purposes, making excellent floors and joisting timber, as well as for doors, sashes, mouldings and inside finishing, when white pine is scarce. It also furnishes spars for sailing vessels, such as yards, masts, etc., as it is both light and strong.

The sea or black spruce of Nova Scotia and New Brunswick is largely used in the frames of ships, and when well salted is said to be almost as strong and durable as oak. I have seen a Nova Scotia barque with part of her frame exposed, as sound as the day it was put up, after eight years of service in many climes and storms. The spruce is also the favorite wood of pulp makers, to be manufactured into paper, though other woods to some extent are used, the young trees being preferred. Vast quantities are cut down to supply the demand which is increasing very rapidly. Much of this material is taken to the United States in its natural state, where it enters free of import duty. Our Government, I think unwisely, removed the export duty that existed until a year or two ago, thus hastening the

denuding of our forests, and robbing the country of one of its principal sources of wealth.

The next in order of this class is the

TAMARACK, OR LARCH,

sometimes known as hackmatack. It is deciduous in its character, and though it has fallen in value of late years owing to the decline of ship-building in Quebec, yet it is an excellent wood, being little inferior to oak for strength and durability, and much more easily worked. Years ago I have sold it in Quebec for twenty-five cents a cubic foot, while to-day it is difficult to get for the same average quality twelve to fourteen cents, and that for only a limited quantity. None of it is exported. What is made is principally used for sills under plank sidewalks, and in the construction of a few small vessels and scows that are built for local purposes. The smaller trees are mostly made into railroad ties and cordwood, which is considered an excellent steam-producing fuel on account of its inflammability. Tamarac knees made out of the root of the tree are valuable to export.

The red, or Norway pine, another of the coniferous trees, is often found scattered with white pine, largely on the Ottawa and its tributaries; it has much thicker sap than the other pines; it is a valuable timber, strong and elastic, much used in this country for flooring and the frames of railroad cars. In England, largely for flooring, joists and ship planking.

We now come to what every lumberman considers

THE KING OF THE FOREST,

in grandeur, usefulness or value, the white or cork pine, or pinus strobus of the scientists. The tree of all others that serves more purposes than we can enumerate. Among them the tiny match, the mast for the great ship, the frame of the sweet sounding piano, and wherever a soft, easy-working wood is wanted, either in the arts, the workshop, or the factory, there it is to be found. As an article of commerce it far surpasses in value and quantity that of any other wood, if not of all sorts put together. It supplies more freight for vessels coming into the St. Lawrence than any other commodity; it gives more employment to wage-earning men than any industry in our country, except agriculture. It employs more capital in manipulating it from the time the men leave for the woods in the fall to make, haul and drive the logs and timber to the mills; the building of mills for sawing; the construction of barges and steamboats to convey it to the market, as well as the large amount of freight furnished to railroads; the erection of factories to convert it to the various uses to which it is put. It is safe to say that the value of the output of pine lumber alone, produced in Canada, is at least \$25,000,000, or two and a-half times as much as that of any other manufacturing industry, and when we consider that sixty per cent. is paid for labor and that nearly all to men representing a large population, you can readily see how important it is, either by legislation or otherwise, to protect and conserve the source of this great factor in our prosperity. How can we extol sufficiently this monarch of the forest that we are so much indebted to? The tree, when growing in the open country, is of little or no value except as a shade tree, its lateral branches reaching almost to the ground, and it is in the dense forest we have to look for the great tree of commerce, where nature acts the pruner. There the branches decay and drop off, the trunk shoots upward high above its neighbors, seeking that which it was deprived of below, light and air. By this action of nature we get our clear pine, so much prized by mechanics. As the branches drop off, the wood grows over them, and we get the stately tree carrying its size well up and often attaining sixty or seventy feet to the branches. I once saw a tree that measured forty inches in diameter, seventy feet from the ground, without a knot or defect visible in this space. Naturally, however, it is very rare to get a log or the best of timber without finding knots or defects as you get near the heart, the remains of the dead branches that fell off in the trees youth. My experience teaches me that

WHITE PINE IS OF SLOW GROWTH.

The smallest tree that ought to be taken for saw logs or timber should be at least fourteen inches at the butt. This would take not less than fifty years to produce, and such a tree as I have before described, as much as one hundred and fifty. I have a white pine tree near my

house that has not gained more than three inches in twenty years, although it is in good rich soil, perhaps too rich. Large groves of pine are usually found on poor light soil. I think, consequently, that the bulk of the pine found under such circumstances is apt to be punky or defective for the want (so to speak) of nourishment. The best pine is usually found on stronger soil mixed with hardwood. It is unpleasant to contemplate the want of this valuable timber. Once gone it is gone forever, and cannot be reproduced in our time or our children's, as unlike mineral or the other products of the soil, the quantity produced from these is only limited by the amount of labor employed in producing them. Perhaps, however, time will find a substitute in some artificial wood, or employ metal to take its place. Hardwoods, to which I will briefly refer presently, that were once almost discarded, except for burning, are coming largely into use in consequence of the improved wood-working machinery that has been devised of late years, making the work of preparing and completing joiner-work much more simple and easy than it was to do the same thing in pine (when I served my time, over 50 years ago, and when flooring, mortising, tenoning, sticking mouldings out of dry spruce with hard knots was done by hand). The facilities also for reaching hardwoods and getting them to market will help to make up for the loss of this favorite material, which I hope is yet a long way off. I might say before closing this part of my subject that the

MAGNIFICENT CEDAR OF BRITISH COLUMBIA

will no doubt largely take the place of white pine for joiner-work. The Douglas fir will be a valuable substitute for our coarse woods, when they become scarce and high in price, that is, if the railroads moderate rates coming east so as to come into competition with each other. It will, however, I am afraid, be some time before either takes place.

The last of the soft wood that I will refer to is the bass wood, linden or bois blanc. It produces lumber that is much used by carriage-makers, furniture manufacturers and joiners, for panels, etc.

DECIDUOUS OR LEAF-SHEDDING TREES.

Of the deciduous or leaf-shedding trees, the first I will refer to is the beech, a handsome shade tree with smooth bark and bearing a small triangular nut not of an unpleasant taste. The wood is used for various purposes, such as carpenters' planes, shoemakers' lasts, bobbins and shuttles for cotton and woolen factories, and largely for firewood, as it makes excellent fuel.

Birch, of which there are several species, principal among them being the large or yellow birch, is much used for furniture, by wheelwrights, for stair builders, for hand rails and balusters, and in ship-building, forming a portion of the frame, flooring and keelson, being durable when kept wet. It is also largely exported to Europe as square timber. It is a tree of considerable size, often reaching twenty to thirty inches in diameter. It is also a favorite firewood.

The white birch or bouleau, has within a few years become of some value when found within easy reach, having been turned to account for the manufacture of spools and spool wood for thread makers, the white part of the wood only being used. Many shiploads have been shipped to England and Scotland the past few years, principally from the lower St. Lawrence.

The elm is much admired as a shade tree. Rock elm found in Ontario is tough and durable, and is valued for the planking of vessels. Common elm is used for barrel staves. Oak is one of the most valuable woods of commerce. The white and blue oaks of Ontario were famous for their great size and length, as well as strength and durability. In ship-building it has no rival, except it be the live oak of Florida. The white oak found in Quebec is small and of little value; the red oak is of good size and makes excellent inside floors and household furniture. Black walnut is almost a thing of the past, although forty or fifty years ago in the country between Guelph and the St. Clair river and Lake Erie it was cut down, burned or put to the commonest use, such as fence rails, posts, hog pens, etc. There are many varieties of maples, soft and hard maples being familiar to almost everyone. The hickory is a highly esteemed wood, noted for its toughness and strength, and is more plentiful in Ontario than Quebec.

VIEWS AND INTERVIEWS.

A Boy
Inventor.

Humphrey Potter is probably the only boy who ever invented anything of practical use to the world. Before Watt had perfected his discovery the Newcomen engine was considered the best. Besides a man, it required the services of a boy to turn alternately the two cocks, one admitting the steam into the cylinder, the other admitting the jet of cold water to condense it. This work was easy enough, but it soon grew monotonous, as it had to be constantly attended to. Potter was lazy, and he thought how much time he would have for play if he could only make the cocks turn themselves. He observed the alternate ascent and descent of the beam above his head, and being a bright boy he thought he could save himself much work by applying the movement to the alternate rising and lowering of the levers which governed the cocks. He contrived a device, which he called the "scoggan" (meaning lazy boy), consisting of a catch worked by strings from the beam of the engine. While the arrangement was of course very rude, it not only answered the purpose and made the engine automatic, but improved the working power by increasing the number of strokes from six to fifteen in the minute. Henry Beighton, who added the plug rod and hand gear, subsequently improved upon the boy's work by doing away with the catches and strings and substituting a rod suspended from the beam, which alternately opened and shut the tapets attached to the steam and injection cocks.

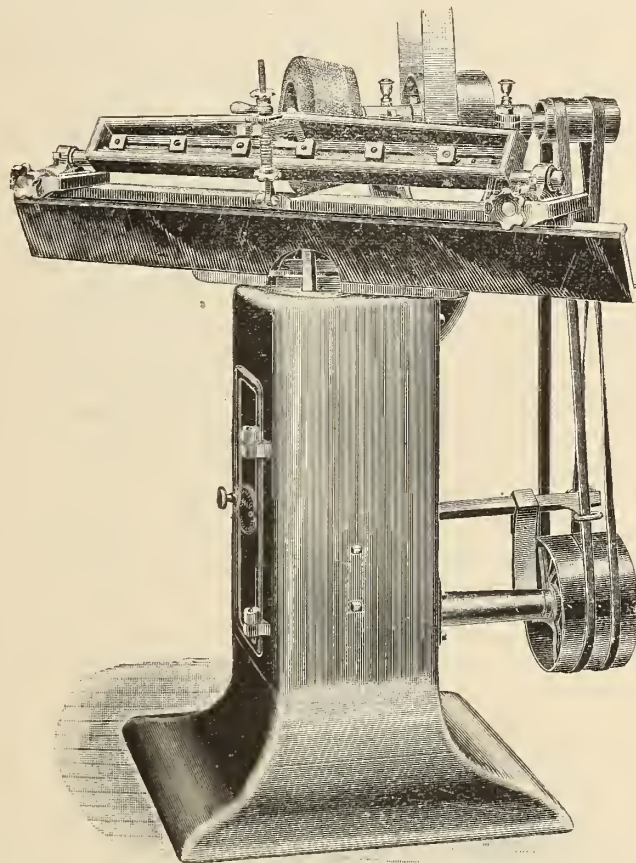
Business
And Sentiment.

There is not supposed to be much sentiment in business; perhaps not as much as there might be. "Business is business" is the motto on which the changes are hourly rung in the busy mart of commerce, and the man who steps out of this hard, beaten, adamant track, more frequently receives the cynic's laugh, than not, for his unusual innovation. But without following the subject further on these lines, though they are not wanting in suggestion, we shall quote an extract from a commercial exchange, that if on sentimental lines will, we opine, touch a sympathetic chord in the breasts of not a few business men. "The road along which the man or business travels," says this writer, "is not a macadamized one, nor does it ordinarily lead through pleasant scenes and by well springs of delight. On the contrary, it is a rough and rugged path, beset with "wait-a-bit" thorns, and full of pitfalls, which can only be avoided by the watchful care of circumspection. After every day's journey over this worse than turnpike road the wayfarer needs something more than rest; he requires solace, and he deserves it. He is weary of the dull prose of life and athirst for the poetry. Happy is the husband who can find that solace and that poetry at home. Warm greetings from loving hearts, fond glances from bright eyes, the welcome shouts of children, and many thousand little arrangements for our comfort and enjoyment that silently tell of thoughtful and expectant love, the gentle ministrations that disencumber us in an old and easy seat before we are aware of it; these and like tokens of affection and sympathy constitute the poetry which reconciles us to the prose of life. Think of this, ye wives and daughters of business men! Think of the toils, the anxieties, the mortifications and wear that fathers undergo to secure for you comfortable homes; and then compensate them for their trials by making them happy by their own firesides."

Sawing off
Prices.

The crazy habit of cutting prices cannot be too severely condemned. We have reverted to the matter more than once in these pages; and will give place here to some utterances that we have found in an exchange, from one who knows how to size up the question in vigorous English and apt simile. This writer says: "Some men have a mania for cutting prices, and where the habit is strongest it is the least frank and open-handed. It condescends to trickery, and is in trade relationships what Judas Iscariot was in the councils of the twelve apostles. It is, of course, impossible to manipulate business morals on a pancake basis of even justice. It

may have its revivals, but these are usually restricted to sales, and leave the sinner still unregenerated. Saints are scarce both in churches and shops, and, if a pity, it is still a fact; and if Moses fails with the ten commandments, it is not reasonable to suppose any trade law can escape the usual violation. The evil, however, is none the less for being too common, for it is to this spirit of rivalry and cupidity we find so many men making meat of their noses to spoil their neighbor's face. It is this phrenzy that makes competition homicidal. It simply does a butchering business and fills the modern shambles with debtors and creditors, financial skeletons and busy sheriffs. This, of course, is foolish; but as fools seldom die when young, they have to be endured in whiskers. They are practically immortal, and never die. They co-exist with the mosquito and the gadfly, and the wart that spoils the beauty of a Roman nose. Everybody knows that two-thirds of our business failures, bad debts and ruined creditors are traceable to these unrepentant sinners, and that their delinquencies in the long run have to be balanced in the big clearing house of the public purse. All kinds of schemes are devised to limit this business evil. We cork it up in conventions, committees and organizations, and frame all kinds of affidavits to keep the modern Ananias from his old habit



PLANER KNIFE GRINDING MACHINE.

of going back on his veracity. Men travel hundreds of miles, frame constitutions and employ the national mails to distribute resolutions and schedules in printed form, but still the cat gets into the pantry and the dreaded camel gets through the needle's eye. In fact, men who would adhere to living prices and save themselves from the sheriff, are frequently compelled, by the law of self-preservation, to take to the water on a plank when the bottom is kicked out of the business boat. Competition keeps its knife on the grindstone and the trader's throat, with the criminals sitting before a ledger, and their names on the official roll of fair and honest trade. It may be safely said that it would pay, with a handsome profit, to give a life pension, with board and lodging and free rides on Sundays, to this class of men, who are strangling themselves and their neighbours by undue and injudicious competition."

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

PLANER KNIFE GRINDING MACHINES.

THE evolution of planer knife grinding would be an interesting study. Step by step the art has advanced from the clumsy all-day job done on a grindstone, two men holding the knife to the work. The first improvement dispensed with the services of one man, by using a dovetail slide to travel the knife to and fro.

The advent of emery wheels made a decided advance, for a narrow emery wheel twenty-four inches in diameter took the place of the more burly grindstone, and a more elaborate mechanism traversed the knife back and forth without the aid of manual labor. The emery wheel ground a slight concave in the bevel of the knife when first used, but the concave increased regularly with the wear of the wheel till, long before the close of its natural life, it had to be put aside as having outlived its usefulness, the edge ground becoming altogether too concave. The next step was the introduction of a massive machine nearly a ton in weight, and the objectionable increase in concavity was prevented by an oscillating motion of the knife carrier. For obvious reasons this machine was never a prime favorite.

Cup or tub wheels next pushed their claims, but while they made a very good edge for some work, the lack of concave was objectionable to those whose finer work seemed to demand a concave edge.

What is really wanted by nine-tenths of planing millmen is a substantial yet simple machine that will grind accurately and automatically either a straight or concave edge.

The illustration on this page represents such a machine. Moderate in price, simple in construction, accurate in work, producing at will of operator either a straight or concave bevel, occupying the minimum of room, provided with a countershaft, if needed, (not shown in illustration), it does seem to fill the bill, and the makers, the Dominion Emery Wheel Co., of Hamilton and Prescott, guarantee it will. For fuller particulars, price, etc., please address them.

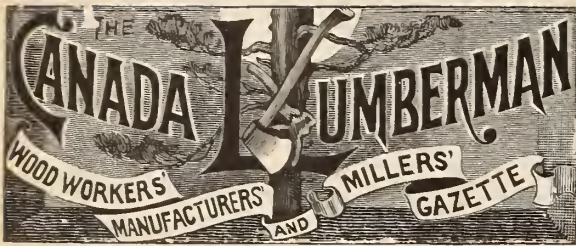
ANOTHER LOCAL FAILURE.

WE regret to have to record this month the assignment of Porter, Robertson and Co., lumber merchants, of this city. Mr. Robertson, the sole member of the firm, is one of the best-known and most highly respected men in the lumber trade. Unfortunately, however, like many others, he has during the past year suffered heavy losses, until at last he has himself been forced to the wall. Mr. Robertson places his liabilities at \$10,000 and assets nominally the same, but which will, no doubt, shrink considerable in the effort to realize on them. The creditors were most kindly disposed towards the insolvent, and a compromise might have been arranged, but it was Mr. Robertson's wish that the estate be wound up, and his hope is that if the shortage is not too heavy that he will ultimately be able to wipe it out by his own exertions. As an earnest of his intentions to push things, and lose no time in getting down to work, we are pleased to learn that Mr. Robertson has formed a connection with the Toronto Wood and Shingle Co. (Ltd.), of Queen Street West. The arrangement will no doubt be a profitable one to the company, and we trust will be equally satisfactory to Mr. Robertson.

WHY BAND SAWS BREAK.

Being a book of instructions to filers on the care of large band saw blades, used in the manufacture of lumber. Treating on the hammering, filing, brazing and care of band saw blades, removing unequal tension, setting irregular teeth, etc. By Joshua Oldham; M. T. Richardson Co., Publishers, New York. Cloth, price \$1. For sale at office of CANADA LUMBERMAN.

In the above-named book may be found valuable information on the subject of treating band saw blades. Beginning, the author gives sixteen reasons for the breaking of band saw blades. Each reason is analyzed, and information which, if carried out, will remove the causes of breaking, is then given. The styles of hammers to use are illustrated and described. Explicit instructions are given on hammering, filing and brazing the blades. Instructions are given to remove improper and unequal tension, irregular and uneven teeth, etc. In connection with the treatise is a history of the manufacture and use of the saw from its origin to the present time. Altogether the book presents an accumulation of valuable and practical information which cannot be found anywhere else. It is printed on fine paper, in good clear type, and is bound in cloth.



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—BY—

ARTHUR G. MORTIMER

OFFICE.

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THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

NO LOG DUTIES.

MR. IVES' resolution: "That it is expedient to impose export duties on sawlogs and spruce pulpwood when exported from Canada," did not receive very hearty support from the members of the Commons, and its defeat settles for some time the agitation for a tariff change in Canadian lumber.

The principal participants in the debate were the mover, Mr. Corbould, of British Columbia; Mr. John Charlton, himself a lumberman, operating Canadian limits and with an office at Tonawanda, N.Y.; Mr. Sproule, Mr. O'Brien, who represents the lumber constituency of Muskoka, and the Finance Minister. The mover did not make out a particularly happy case for his side of the question. His speech was faulty in the important particular of not exhibiting a mastery of the actual facts of the situation. He was quickly taken up, by Mr. Charlton, in his statement that the Americans could not do without our spruce and would have to pay any duty we might choose to put on. It is stated by Mr. Charlton that there are immense tracts of spruce in the Adirondack mountains, in New Hampshire, Michigan, Wisconsin and Minnesota, as well as in the Southern States. Mr. Charlton further pointed out that it was a mistake to say that the only reduction made by the United States was the duty on white pine from \$2 to \$1 per thousand. There were five reductions made, including that on shingles from thirty-five to twenty per cent. And we opine that LUMBERMEN readers are aware that during the past year Canadian shingles in considerable quantities have been exported to the United States, and the trade is growing. Whilst engaged in writing this article the writer was called from his desk to talk with a manufacturer engaged largely in the shingle trade, who states that the entire shingle output of his mill goes to the States. Mr. Charlton takes common ground with the Algoma Advocate, published in an important paper wood section, that it would be unjust to the small farmers who have pulpwood to sell to compel them to wait until Canadian manufacturers were ready to buy it. There is this important fact to be considered in a dis-

ussion of the duty question, and perhaps not generally known to lumbermen, that the trade and navigation returns show that while in 1891 there were exported 228,500,000 feet of spruce, there was imported in the same time eight or nine times that quantity for manufacture in Canada. In the last seven years, Mr. Charlton says, our spruce imports represented \$8,500,000, while our exports during that period amounted to the value of only \$3,280,000.

The real position, as it exists to-day, was perhaps as fairly stated by the Minister of Finance as by any of the speakers, when he said that there were diverse interests in connection with this matter, but the policy of the Government had been fixed, and whilst from certain points of view the spruce industry had probably been unfairly dealt with, yet considering the entire lumber interests, together with the conditions that were an embodiment of the McKinley bill, it would be disadvantageous to the lumber interests of Canada to reimpose the duties on lumber.

This is the position the LUMBERMAN has taken on the question from the commencement of the agitation for a reimposition of the log duties. Our friend the Canadian Manufacturer, when saying some kind things of the CANADA LUMBERMAN a month ago, expressed the hope that we would bend our enlarged energies to the advocacy of a reimposition of the log duties. The answer of Mr. Foster, whose trade policy finds special favor in the eyes of the Manufacturer, is the answer of the LUMBERMAN. We take the situation as it is to-day and, with the Minister of Finance, ask: What advantages could lumbermen gain by a re-imposition of the duties? It is not relevant to the issue to say that Sir John Macdonald should never have consented to an abolition of the log duties. He did consent. We are prepared to admit that in the change certain local and individual interests connected with lumber have suffered. But let us remember that other branches of the lumber trade, and the business record of the past year is its own complete answer on this point, would, if the Government were to revert back to former conditions, suffer in a degree immeasurably greater than is the case with any particular branch under present conditions. It cannot be forgotten that we have not the shaping of the lumber tariff altogether in our own hands. Were this so, we might do something we cannot now do. As we have repeatedly remarked, the McKinley bill is an important factor in any re-adjustment that may be proposed, and it is useless to shut our eyes against this element in the case.

INDIVIDUAL AND NATIONAL EXTRAVAGANCE.

Is the oft-repeated statement correct, that individually and as a people, we are spending more than we are earning, and steadily drawing on capital account? The large growth per capita in the national tax bill would seem to furnish only one answer to the latter part of the enquiry, and the Government have called a halt none too soon in deciding to cut down expenditure in various important particulars. Irrespective of party the overburdened tax-payer is ready to admit that much.

What is the case of the individual? The individual, after all, constitutes the nation. If his policy is based on principles of thrift and frugality we have not so much reason to dread the policy that governments may pursue. An American lumber journal, that has been keeping a record of the various causes of failure in the lumber trade during the past year, has furnished us with an illustration, that whilst perhaps exceptional in magnitude, places the case of the individual in very clear light. A Wisconsin firm recently failed for a large amount and the estate will pay less than forty cents on the dollar. Three gentlemen constituted the firm, and in their desire to aid in a re-adjustment of their troubles generously volunteered to each reduce their living expenses \$10,000 for this year, in this way creating a saving of \$30,000 a year. What they will still expect to retain per member for their "living expenses" is not mentioned, but we may safely conclude that "living expenses" that will permit of a reduction of \$10,000 a year are likely to still have remaining sufficient to admit of a fairly decent living. The open confession of these men carries but one interpretation, which is that during these years they have been living at the expense of their

creditors, who are now obliged to discount their claims fully sixty per cent.

Business men, and the circle includes men of other callings, who are spending more than they earn, are not confined to this Wisconsin lumber firm, though their case is perhaps an aggravated one, nor to residents of the United States. The individual in the present day appears born to extravagance. The pendulum has swung with a vengeance to the opposite side, and we know little of the thrift and economy that guided the course of our grandfathers. The beginner in business, who has not only his fortune to make but actually his needed capital, must live as well as the independent merchant, who, for a decade of years and more, toiled and saved, pinched and screwed in order to place his business on a solid basis, and not until then commenced to drink in the luxuries of life. The younger man does not intend that he shall overstep seriously the bounds of frugality. If his personal account in the meantime is larger than the actual trade being done would seem to warrant, he expects that shortly his argosies will come home and he will readily recover any extravagance of the present. The system of economy is bad, and more frequently the argosies, if they do come home and none are lost, realize a little short, rather than in excess of the estimate. One result follows. The man begins to find himself pinched, and if he does not pull up with a short rein he is soon in the same boat that sunk the Wisconsin lumbermen.

Political economists draw a sharp dividing line between those trades that are productive in their results, and others which, while representing an outgo, do not add in any way to the wealth of the State. The lumber and wood-working trades furnish a familiar illustration of the first-named class. Starting from the time the tree is felled in the forest until the day it graces our drawing rooms, shaped into handsome furniture, as each day's labor has been put upon it, and capital has been employed to give it other shape and form, its value has gone on increasing, adding to the wealth of the producer and the nation in which the work of production has been carried on. The liquor traffic is often taken by political economists to illustrate a business which gives back nothing productive, or that benefits the individual or nation, in return for the capital and labor absorbed by it.

The individual, who draws upon his earning powers in excess of the amount earned, is violating every rule of sound political economy, so far as his worth to the community is concerned, if not in the same degree, just as certainly as the liquor seller or others who engage in non-productive employments. Every dollar expended beyond his earnings is a dollar wasted to the community. The community, in some of its parts, is going to come short that amount. The position is worse than this. That dollar he has lost by his extravagant living is not only a dollar lost, but, like the talent unused and tied up in a napkin, there has been lost with it the earning power possessed by it. We see the force of this condition when we contrast the position of the business man who loses his dollar with the man who husbands it. The one, in pursuing this policy continuously, becomes a bankrupt; the other is steadily adding to the wealth of the community at large. His business increases, giving him the ability to consume greater supplies of the raw material of his own or other countries. Additional employment is furnished to the laborer; the avenues of transportation have increased business placed in their hands; and all through the net-work of activity that surrounds operations of business the pulse throbs with enlarged healthfulness and strength.

Individual extravagance is a national calamity.

OIL VS. GREASE.

IN English mills fluid oil has largely given way in favor of grease for lubricating wood-working machinery. The best class of grease is a solidified oil, which possesses the advantage of remaining longer in the bearings than fluid oil. It is applied through the medium of a special form of screw or screw-plunger lubricator, the grease being forced into the bearing at intervals by turning the screw. The great point you have to aim at is to secure a lubricant which will not develop fatty acids and clog and gum the bearings up. A common oil or grease is dear at any price for wood-working machinery.

HEAVY LUMBER CHANGES.

MICHIGAN lumbermen are increasing their holdings in Canadian pine, two heavy purchases having been completed during the month. The most important, probably, is the deal of Merrill, Ring, Fordney & Co., of Saginaw, who have secured from the Dodge estate pine timber in eleven townships on Magnetawan river, Georgian Bay district, estimated to cut nearly 500,000,000 feet of standing timber, 19,000,000 of logs afloat, and a sawmill of 12,000,000 capacity. The mill is the one located at Byng Inlet, which, we are informed by those likely to know, will be actively operated by the new concern. The consideration for the entire property is placed at \$750,000. The syndicate, headed by the Arthur Hill Company, of Saginaw, Mich., has closed a deal with Pattee & Perley, of Ottawa, for 500,000,000 feet of pine on the Ottawa river at a reported price of \$800,000. The Hill Company, which owns large tracts of timber in upper Michigan, places its product on the eastern market, and will likely manufacture the Canadian timber on this purchase in the same manner.

EDITORIAL NOTES.

THE timber land fake is being worked to good advantage on the Pacific coast (American), and an exchange says every few days a sucker is caught. Sometimes in one way and again in another, but everywhere the thimble-rigger and his whole crowd of satellites find the innocent gullible to work upon. They catch even lumbermen, it seems, who ought to know better.

IN one of the debates towards the closing of the session of the Ontario Legislature last month, in reply to a speech of Mr. Wood, member for Hastings, the Minister of Crown Lands made an important statement regarding the timber wealth of this province. The estimated mileage of unlicensed Crown timber lands he placed as follows:—West of the Ottawa river and northwest of the limits sold in 1872, between 80° and 85° west, and extending north to 48th parallel of latitude, 24,000 square miles; between the Ottawa agency and berths sold in 1881, 540 square miles. Averaging timber on this area at 1,000,000 feet to the mile, there were 24,000,000,000 feet. The late Col. Dennis estimated the timber in the disputed territory at 26,000,000,000, making a total of 50,000,000,000 feet. There were three years ago under license in Ontario about 19,000 square miles, on which there was supposed to be 10,000,000,000 feet, which made a grand total of over 60,000,000,000 feet of timber still uncut in the possession of the Province. With such figures as these he believed that the quantity of timber in possession of the Province was beyond question for a century to come.

THE Mississippi Valley Lumberman has its brother, of Chicago, the Northwestern Lumberman, by the hip, in two columns of "deadly parallel" contrasting the views of the latter on "free trade in lumber" in 1887 and 1888 with those expressed during the past few months in its sensational articles under the caption of "American Markets for American Lumber." In 1887 the question of commercial union between the United States and Canada was being discussed by the press of both countries. The Northwestern was particularly interested in the subject in its relation to the lumber interests of its own country. Not once, but over and over again, it stated that "the country at large would certainly be the gainer by unrestricted trade with the Dominion. There was no reason to suppose that the abrogation of the customs duties would reduce even the price of mill-run stock." The truth is our Chicago contemporary has made itself painfully ridiculous in the eyes of every sensible lumberman in the way it has handled this question, and if anything its silly charges of disloyalty to American lumber interests made against the Timberman, the Mississippi Valley Lumberman and the New York Lumber Trades Journal have not been the least silly of its several exhibitions of childishness. The American hog has his chief abode in Chicago. The constant efforts of the Northwestern Lumberman to decry every other lumber newspaper in the country, holding itself up as the "great and only" lumber journal of sixty millions of people, gives one the idea that Chicago grows more than one kind of hog.



THE Autocrat of the Breakfast-Table, with that facetious philosophy that marks the writings of Oliver Wendell Holmes, asks: "What would be the state of the highways of life if we did not drive our 'thought-sprinklers' through them with the valves open, sometimes? Besides," he says, and I want to emphasize the thought, "there is another thing about this talking which you forget. It shapes our thoughts for us; the waves of conversation roll them as the surf rolls the pebbles on the shore." We are told that there are no good conversationalists in the present day—the art is lost. There is assuredly a difference in mankind in this respect, and just how chary some people are to exercise their "thought-sprinklers" no one knows better than the newspaper interviewer. Where does each one derive the knowledge, which too often they hug with miserly pride? We are all borrowers from others; one generation from another; the individual to-day from the individual of yesterday. I am so desirous that our friends should give interest to this page, for their own gain, either by word of mouth, or frequently, when this is not convenient, by written communication, that it seemed to me that the Autocrat's talk about "thought-sprinklers" might prove suggestive.

* * * *

Every mother crow, it has often been said, thinks her own baby crow the blackest; and this spirit of loyalty to ones own particular progeny displays itself in many different ways. I have found a recent illustration of this, touching the matter of lumber, in a dialogue between lumbermen reported by an exchange: "One man fell to discussing Pacific cedar. 'It's a fraud to call it red cedar,' he said, 'it's nothing of the sort. It's white cedar and not as good a quality as ours. Didn't you ever notice it? How spongy it is? I should think it would let the rain through like a sieve.' A Pacific cedar man says: 'The coast shingle is bound to beat the world. White pine doesn't compare with it. It will keep rain out as long as a house can stand up. No cedar in the world compares with the Pacific cedar.' A white pine man tells me that the yellow pine is proving a delusion as a building timber. Even in the Southern States they admit it, he says, for when placed in the vicinity of stone and brick walls, it is struck with a dry rot that ruins it in a very few years. A yellow pine dealer, on the other hand, informs me that yellow pine is growing in popularity as framing timber, and for use as posts and girders in stone and brick blocks. The same diversity of opinion is expressed concerning northern and southern oak, Canadian and Michigan elm, Wisconsin and Minnesota pine, and in fact any two kinds of lumber that grow on opposite sides of any line fence. The man who knows his lumber best likes it best, which proves to me that no lumber is wholly without merit."

* * * *

At the session of the Ontario Legislature of 1891 Mr. Hardy introduced a measure, known as "The woodman's Lien for Wages Act," designed to protect the woodmen who, in their dealings with small jobbers, were frequently at the end of the season done out of their entire wages. The Act covers the districts of Algoma, Thunder Bay and Rainy River only. Objection was taken in the House, at the time the bill was under discussion, to the limitation clause. Mr. Miscampbell, himself a practical lumberman, and others, contended that if the measure were good and necessary it should be made general and not special in its application. Mr. R. Kember Johns, of Gravenhurst, has written a letter that gives force to this contention. He says that a large number of men working in the camps and small shingle mills in the districts of Muskoka and Parry Sound are sufferers through the dishonest methods of their employers. "In the last few days," he says, "no less than six men have applied to me in this state with amounts from \$40 to \$100 com-

ing to each. These men as a class do not take the work for amusement or occupation, but to help on the family at home. One man told me he had been working since December so that his wife, who was afflicted, would be able to get medical advice, which he now could not get her. With small shingle men it has become a custom for a man to rent a shingle mill, get logs by any means and have these cut up, usually upon the strength that he has a contract to supply a certain quantity of shingles to one of the large buyers, men supply bolts and logs on the faith of this contract, and after the shingles are made and marked find that the jobber has drawn all the pay and has left them to get their claims from him as best they can. The jobber takes contracts at prices that will not pay for lumber and labor, and the poor laboring man has to go to the wall. Every buyer or lumberman buying shingles from such men as these when marking the shingles should be answerable to the workmen for wages as also to the poor settler for the pine. The thousands of dollars that are lost to these poor men in this district alone would surprise any person not in the way that I am of seeing, month after month, the same thing going on."

* * * *

Among matters having a place on my desk is a letter, of some length, from Mr. Wm. Little, of Montreal, whose valued contributions have at various times found a place in these columns. It was written in anticipation of the resolution in Parliament favoring a re-imposition of the export duties on logs, and intended for publication in the April LUMBERMAN. Unfortunately it did not reach us in time, and much of its force is now lost from the fact that the House has decided against any changes in the lumber tariff. As may be surmised from Mr. Little's former articles, he considers that rank injustice was done the lumber interests of Canada when Sir John Macdonald's government consented to a renewal of these duties. In this position he has been supported by the Board of Trade, of Montreal, which a few weeks ago sent a strongly worded memorial to Ottawa framed on these lines. Mr. Little's strong contention is that the Michigan mill-men must either have Canadian logs or close down their mills. He says: "In round numbers we supply the United States markets with, we will say, four hundred million feet of white pine lumber annually. The Michigan mills alone have been supplying the same market with four thousand millions of this lumber, or ten times as much. About twelve hundred millions of this, or three times the whole amount of our exports to them, are produced in Saginaw, Tawas, Alpena and Cheboygan districts of Michigan, most of which is shipped to Ohio, Pennsylvania, New York and the New England states, where our four hundred million feet enter into competition, handicapped by a duty, formerly of \$2, now reduced to \$1 per M. Now, the Americans admit that many, if not most, of the mills in this section of Michigan must go out of existence unless they get logs from Canada to saw. Here, then, came in a good opportunity for Canadian operators to realize good prices for their lumber. The Michigan mill-men kept us for years from making a reasonable profit on our lumber sent to their market by the import duty of \$2 per M., and continued to do so until their own white pine timber was about gone, and a reduced production on their part inevitable, unless they got Canadian saw logs to stock their mills. When, instead of our people having the advantages to be derived in higher prices for our lumber from this condition, we give them 3,000,000,000 feet of our timber, free of all restrictions whatever, to continue in their mad career to glut the markets with excessive supplies; and since as I have stated what I know from personal observation they have under existing conditions the advantage of \$3 per M. over our own manufacturers, they can, and I have no doubt will use our timber to depress the price of our lumber product not only in their market, but in every market where we send white pine lumber. It would be just as injudicious for an opposing army to give its ammunition to its adversary when he ran short as for our lumbermen to give these American mill-men our logs to manufacture into lumber, every board of which comes into competition with our own production. And it is simply ruinous to do so with the additional advantage of \$3 per M. in their favor which they now have."

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

EVERYONE is alert for business, now that we are fairly into the spring season. Not even the agitation over the coming presidential election, which is commencing to warm up at all points, is to be allowed to divert lumbermen from straight business. Lumber, on the whole, was just quiet enough last year to make the trade anxious to put in a profitable season this year, and the outlook favors improved conditions. Manufacturers lay the blame of lessened profits last year on the competition brought about by the quantity of coarse lumber that reached here from your side of the line, making Saginaw lumber a drug and resulting in a depreciation in prices.

Just how short stocks are may be indicated by the statement that all of 25,000,000 feet of uncut lumber has already been sold. It is on the incoming cut, in fact, we must depend for our supplies for the summer's trade.

FIGURES OF BOOM PROFITS.

One branch of lumbering that has paid well in Michigan is that of the boom companies. Mr. Edward Hall, of Detroit, who has been endeavoring, in the interests of himself and fellow lumbermen, to secure reduced rates, has had prepared the following table of profits.

The Manistee River Boom Company was organized in 1869 with a capital actually paid in of \$22,000, and was stocked for \$100,000. Dividends paid to stockholders in 1873, \$10,000; 1874, \$15,000.

The Muskegon Boom Company was organized in 1864 with \$40,000 actually paid in. In six years the capital stock was increased by the earnings to \$200,000. In 1870 it declared a dividend of \$38,262.50; in 1871, \$19,524.40; in 1872, \$18,478.54; in 1873, \$60,000; in 1874, \$80,000. In 10 years it declared dividends amounting to \$246,265, on a capital paid in of \$40,000.

The Tittabawassee Boom Company was organized in 1864 with an actual capital paid in of \$50,000. This was increased to \$100,000, and it paid dividends as follows:

1865.....	\$25,000	1874.....	\$20,000
1866.....	40,000	1875.....	20,000
1867.....	40,000	1876.....	20,000
1868.....	30,000	1877.....	20,000
1869.....	25,000	1878.....	15,000
1870.....	20,000	1879.....	15,000
1871.....	15,000	1880.....	15,000
1872.....	nothing	1881.....	15,000
1873.....	20,000	1882.....	15,000

All of these companies have made money nearly every year, besides paying good salaries to the officers. The average cash dividends of the Tittabawassee Boom Company for the first 10 years were 47 per cent.

PIECE STUFF.

At the recent state elections representative lumbermen received a fair share of the offices. James Gow was elected mayor of Muskegon; William S. Linton was elected mayor of Saginaw; Edward Buckley was elected mayor of Manistee; William E. Hill, the well-known sawmill machinery manufacturer, was elected mayor of Kalamazoo.

More hoops will be produced in Michigan in 1892 than in any single year in the history of the business—so it is claimed.

Two dams on the Molasses went out the fore part of the month, and it is feared that 9,000,000 feet of logs, belonging to Charles Merrill & Co., may be hung up.

Holland & Co., who are operating a mill at Neubinway, are reported to have sold 22,000,000 feet of lumber to be cut, and the mill will run day and night this season.

Hall & Buell will have 52,000,000 feet of logs for their Manistique mills.

SAGINAW, Mich., April 26, 1892.

PICA.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE various lumber deputations that have visited the capital within the past month received the reply of Parliament on the 11th inst., when the resolution of the member for Richmond, Que., asking for the imposition of export duties on sawlogs and spruce pulpwood, was defeated by an unmistakable majority. The debate occupied not a few hours of the House, and was taken part in by a number of leading members. Mr. Charlton's speech was undoubtedly the speech of the debate, evidencing a practical grasp of the question, that was not displayed in the utterances of any other member. Those who were anxious to see a tariff change were unfortunate, it seemed to me, in not having their views espoused by an abler advocate than Mr. Ives. Their case in the hands of a stronger man would certainly have been improved. I anticipate that, editorially or otherwise in the LUMBERMAN, you will make comment on the speeches, and for this reason do not pretend to give a resume of them here. Aside from the immediate question, however, let me quote a reference in the speech of Mr. O'Brien on the important subject of other markets for pulpwood. He said: "There was another point to which attention should be

called, the destruction of the forest wealth. There was not a civilized country in Europe that had not a system of forest preservation and perpetuation, so that they exported now as large a quantity of forest products as 300 years ago. But Canada, with all its boasted civilization, education and advancement, seemed to think only of how to destroy this great wealth. In this respect Canada was certainly far behind the age. It must be borne in mind that the amount of timber really valuable for export is in reality very limited. It was said that the Americans had put their mills near the border in order that they might get our pulp. But it was absurd to suppose that in these days of invention no other article would ever be found for the purpose of manufacturing paper than pulp. We are placed in a most humiliating position with respect to the United States as far as this particular trade is concerned. There is at present literally no other market. We are really at the mercy of the United States, and the only way for us to recover from the humiliating condition is by finding other markets."

LUMBERMEN IN COURT.

The case of McKay vs. Canada Lumber Co., which occupied the attention of the courts for two days, is one of unusual interest to lumbermen. Briefly stated, the transactions were as follows: The Canada Lumber Company bought from W. McKay, of Ottawa, certain logs lying in Buckshot Lake, at a certain price, the measurement to be that on which Mr. McKay would pay Government dues, and the terms being nine months' credit. At the expiration of the nine months the defendants, finding themselves not able to pay, asked the plaintiff to accept in payment of the debt, a nine month's note for the amount with six per cent. interest, to which he agreed. After the defendants had given the note they took delivery of the logs and drove them to Innisfill, some sixty-five miles distant, where they were counted and divided into two lots, being a joint purchase between Caldwell & Sons and themselves. The defendants claimed that there was then found to be a shortage in the number of logs from the number contained in the specification on which the purchase was made, and also that the output at the mills showed a shortage, and refused to pay the full amount of the note. The plaintiff's contention was that the logs had been sold and delivered according to the measurement on which he had paid Government duty, and that he could not be held by a count taken some nine months after, and of which he was not notified, so as to have his interests represented. There were a large number of witnesses on both sides and the case was ably fought out by the learned counsel engaged, which were Dalton McCarthy, Q.C.; Thomas Deacon, Q.C., and G. Delahaye for the plaintiff, while the Canada Lumber Company were represented by A. J. Christie, Q.C., of Ottawa, W. R. White, Q.C., and Mr. Green. Judgment was reserved.

VARIOUS MATTERS.

Considerable damage occurred in the vicinity of Oxford Mills a week ago, caused by the waters of the Rideau. At the mills thirty feet of a dam was carried away, together with a portion of Weir's sawmill, causing a loss of over 2,000 logs. A good portion of the village was submerged, and traffic suspended for three days. McIntyre & Macdonald lost upwards of thirty cords of wood.

A gentleman who has lately returned from the Upper Gatineau is authority for the statement that about 630,000 logs will come down the Gatineau this spring made by the Messrs. Gilmour, MacLaren, Rathbun, Edwards and Boyle & McCracken. These 630,000 logs will go a little better than 400,000 standards. In square timber there is about 100,000 feet, made principally by the MacLaren firm. Boyle and McCracken are bringing down for the Lachine market 160,000 feet of dimension timber, and also three small rafts of cedar telegraph poles also for disposal at Lachine. The E. B. Eddy Manufacturing Company will also receive some 1,000 cords of pulpwood for their paper mills in Hull.

Mr. J. R. Booth is the purchaser of the timber limits of the Moore estate, which were sold during the month. The Lake Huron limits brought \$18,000; the limit on the north side of the lake, sixty-six square miles, brought \$6,500; and the Springer township limit, \$8,000. Mr. Killen, of Nepean, bought the Nipissing farm, 687 acres, for \$1,100. The limits of the Timmons estate were put up and withdrawn, only \$28,000 being offered for parcel 1, and \$6,000 for parcel No. 2.

OTTAWA, Ont., April 27, 1892.

NEW BRUNSWICK LETTER.

[Regular correspondence CANADA LUMBERMAN.]

STEVENS & CO.'S mills, on Salmon river emptying seven miles below Grand Falls, have been sawing a good part of the winter and have cut about 3,000,000 shingles already. This firm intends running two more shingle machines this summer, which will make eight, and have more stock on hand than they can cut this season. They have a rotary, clapboard, lath machine and planer, and ship many thousand dollars' worth of lumber every month by rail; the station is three miles from the

mill. The labor and consumption this mill creates proves a great boon to that part of the country. The members of the firm are Americans, but not of the lion's tail-twisting stamp—a prominent species among our friends across the border. They mean business, and show it by their works, adding prosperity to the surrounding country.

In contrast to the action of these men, go above the Grand Falls, along the boundary line, and we find our forests are being slaughtered by Americans and floated by our beautiful water ways to extensive steam mills on the American side for the purpose of manufacturing our finest growth and saving American duty—building up the American side of the line out of our resources.

One of the largest American concerns manufacturing our lumber on the American side is the Vanburen Shingle Mill Co. It annually manufactures 25,000,000 cedar shingles, besides spruce for clapboards, etc., etc., out of the lumber of our province, and saves thirty-five cents duty on shingles and \$2 per 1,000 feet on spruce.

Unless favored with heavy rains it looks black for getting lumber out.

VICTORIA, N.B., April 18, 1892.

P. O. B.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE hope expressed in our last that an improvement in the lumber trade would soon be felt, is being realized. The local trade is improving fast, and the foreign is slowly.

It is very gratifying to all who have been upholding the merits of Douglas fir to see how it is gaining prominence, not only at home, but abroad. As we write, the Hastings Sawmill Co., Vancouver, are loading the "Toboggan" for Wilmington, Del., U.S.A., chiefly with timbers; while the Brunette Sawmill Co. are now cutting three carloads of 3 and 4 inch deals, 12 inches and up in width, clear fir, for Liverpool, Eng. They go to Montreal per C.P.R. for transhipment.

Exportations to Manitoba and Northwest Territories have increased.

The completion of the Panama canal would give a greater stimulus to our trade than many imagine, and it is to be hoped it may be completed, and that as soon as possible.

Australian circulars received yesterday do not speak as hopefully as we could wish.

Your "Character Sketch" of representative lumbermen in each issue is always looked forward to with interest.

H. G. R.

NEW WESTMINSTER, B.C., April 20, 1892.

BARRIE LETTER.

[Regular correspondence CANADA LUMBERMAN.]

A CASE of peculiar interest to lumbermen came before the Hon. Chancellor Boyd at the Chancery sittings here on the 7th inst. John Davidson, the well-known lumberman of Barrie, entered into an agreement last year with the Victoria Harbor Lumber Company to sell them a large quantity of logs, booms, mill tug stores, general lumbering plant, and also a license from the Indian Department at Ottawa to cut the whole of the timber known as the McKrae limit, all on the Manitoulin Island, for the sum of \$56,500, of which \$6,500 was to be cash, and the remaining \$50,000 by five notes of \$10,000 each, payable at intervals of six months apart, with interest. The plaintiff alleges that, so far as he is concerned, all the conditions have been fulfilled, and he is entitled to have the agreement carried out and the purchase completed by the defendants. He also claims \$6,000 damages from them for non-fulfilment of the contract, and brought the present action to compel specific performances of it. The defendants, on the other hand, as a reason for resisting the action and not completing the contract, allege misrepresentation, on which they relied, under which they were induced to enter into the agreement. They say that a quantity of logs were stated as comprising more than 45,000 pieces, whereas there were 41,000 pieces only, and that an average of eleven of the logs would produce 1,000 feet of mill run lumber, instead of which it took an average of sixteen or more logs. That it was represented that the whole of the logs had been cut on the McKrae limits, whereas about one-half had been procured elsewhere and were of inferior quality. That the plaintiff denied having conversed on the subject matter of the agreement with one Thompson, who had been sent by the defendants to examine and report upon the property in contemplation to purchase, whereas he had conversed with Thompson on the matter, and finally that the plaintiff had not the right to assign the license to cut on the McKrae limit, having forfeited the same, it is alleged, by reason of fraud said to have been committed on the Indian Department at Ottawa in the way of making a false return to the department of the number of logs cut on the limits under the license in 1890-91, the said returns declaring that only 22,275 pine sawlogs had been cut, containing 1,539,059 feet, whereas there had been cut under the license during the season named 40,000 logs, containing

about 2,500,000 feet. The defendants by counter claim submit that if bound to carry out the agreement they should be reimbursed for damages sustained as follows, viz.: for misrepresenting the number of pieces and lumber they would produce, \$15,000; by reason of the statement that the whole of the logs had been cut on the McRae limits, \$15,000, and for alleged misrepresentation that the plaintiff had not conversed with the agent, Thompson, the sum of \$25,000. After hearing some evidence and discussion the Chancellor decided to enter a verdict for the plaintiff for \$50,000, referring it to the master to report on any matter showing wherein the defendant had not obtained that which he was to get under the contract, reserving further directions and costs. Mr. Moss, Q.C., and Mr. Strathy, Q.C., appeared for plaintiff, and Hon. S. H. Blake and Mr. Anglin for defendants.

There is every reason to anticipate a busy lumber season in this district. Vansickle Bros' mills start up with a sufficient stock of pine, basswood, ash and elm logs to keep their mill in active operation for some time. Our operators generally have secured a good cut, and the music of the sawmill will be a familiar sound in these parts from now on until the leaves begin to fall another autumnal season.

BARRIE, ONT., April 22, 1892.

ALPHA.

FIRES AND CASUALTIES.

FIRES.

—The Eureka planing mill at Owen Sound, owned by S. J. Parker, and occupied by James McLaren, has been burned; insurance \$2,000.

—James Ellis' lumber camp near Seguin Falls, Muskoka, was burned to the ground recently. All the clothes belonging to seventy workmen were burned, together with their money and other valuables.

—At eleven o'clock on the 5th ult. a fire broke out in W. W. Carter's mill, at Crookston, Ont., and a heavy wind prevailing the building was soon burned to the ground. The mill was built two years ago by Mr. Carter, and was fitted out with circular saws and one set of shingle machinery. The lumber adjoining the mill was saved but some shingles were burned. Loss about \$1,400; insurance \$1,040. About a year ago Mr. Carter had a camp at Crookston burned, losing \$500, without insurance.

CASUALTIES.

—A man named Buck has died from injuries received in Kilb's mill, Wiarton, Ont.

—Leon Shepard, of Abercorn, Que., was drowned in a jam of logs near Sutton a fortnight ago.

—Henry Zwicker, employed on the drive of Harlow & Kempton, Liverpool, N.S., was drowned on the 9th ult.

—Wm. Routley fell thirteen feet from a lumber pile in Milne's lumber yard, Ethel, Ont., receiving a severe shaking up.

—James McDonald, employed in Prentice & Jonlan's saw-mill, Dunkirk, Ont., had his arm removed at the elbow joint by a shingle saw.

—Dan Gallbraith, an employee of the sawmills at Nanaimo, B.C., ran a piece of wood as thick as a man's thumb through the palm of his hand.

—H. Dankard, of Hepworth, Ont., while operating the butting saw in C. W. Witthun & Co.'s mill, nearly severed his arm above the elbow.

—A young man named Young, son of Samuel Young, of Medonte, Ont., was so badly crushed between two logs a few days ago that his recovery is doubtful.

—John Linton, of the firm of Linton Bros., Wiarton, Ont., had both his arms severed by a circular saw while cleaning the sawdust away from the saw with a stick.

—A young Canadian named Archie Boudreau, who was working in the lumber woods for S. G. M. Gates, of Bay City, Mich., was instantly killed by a log rolling over him.

—The skeleton of H. Watson, of Duluth, was found in an abandoned lumber camp, near Rat Portage, Ont. Watson was an explorer, prospecting for Minneapolis parties. Some rich specimens of gold and iron were found in his knapsack.

—Thomas Cowling, aged twenty-three, of Hampton, Ont., a short time ago had his finger cut off by a circular saw. The wound was dressed and it was thought to be doing well. However, he continued to grow worse, lockjaw resulting, and death ended his sufferings.

—John Graham, Ont., of Galt, met with a very severe accident a few days ago when working at Hespeler's sawmill. The driving belt of the large circular saw had slipped off the pulley, and while assisting the workmen in replacing the belt the teeth of the moving saw caught Graham's clothes, throwing him over on the floor with his back against the saw. While in this position, and before the saw could be stopped, it had cut clean through his left shoulder blade down to the ribs.

THE NEWS.

ONTARIO.

—McGibbon's sawmill, Penetang, is in full operation.

—The sawmills at Norman have made an early start for the season's work.

—R. W. Mutchmore, lumberman, Providence Bay, is retiring from business.

—Reports from the Nipissing district say the spring drive is coming along in good shape.

—John Brown, a local builder, is reported to have left town, leaving behind him a great deal of indebtedness.

—Louis Seebach, of Carlingford, Ont., writes that he has finished sawing this season, having had a good run.

—The Rathbun Co. shipped from Brockville a few days since, 1,600 doors and two carloads of ash lumber for England.

—The boats of the Deseronto Navigation Co. have commenced running. The big lumber mill of the Rathbun Co. is in full operation.

—A large quantity of timber is now being shipped over the Grand Junction Railway. It is the product of the forests of the Georgian Bay district.

—John King, of Fort William, is said to have secured a contract for loading 400,000 ties for the C.P.R. between Fort William and Winnipeg.

—The Muskoka Mill and Lumber Co. have purchased a new tug to take the place of the "tender" which they have sold to Wm. White, of Midland.

—J. B. Charleson, late forest ranger in the Province of Quebec, and his son, T. P. Charleson, have decided upon opening up a lumber broker's office in Ottawa.

—Michigan lumber firms, who own limits on the Wanapitae and Spanish rivers, expect to be able to load the barges in the Georgian Bay about May 15. Their cut the past winter was heavy.

—P. Williams, book-keeper for A. C. T. Sorell, lumber merchant, Boston, was arrested at Montreal the early part of the month charged with embezzling several thousand dollars from his employer.

—There is a wage trouble with the men who hauled the logs on the Birch Island Reserve, in the Little Current district. Conlon Bros. claim that the Indians are paid in full, and refuse to honor the orders; and the teamsters have put the logs in limbo.

—At the station yard, Whitby, there are quite a number of large pieces of dressed timber, which are to be shipped to Liverpool, Eng., where they will be made into masts for large ocean ships. They came from Cartwright township, and each piece is worth from \$50 to \$100.

—Our advertising columns contain the announcement of a shingle mill for sale, located five miles from Bracebridge, Ont., that furnishes an exceptional opportunity for a practical man to enter business on his own account. The property belongs to an estate which must be wound up almost immediately.

—A week ago Robt. Boyd, of Matchedash, Ont., was chopping in the bush, when a tree fell across a hollow log, which proved to be the winter abode of a bear and its two cubs. The old bear started off on a run, and, though watched for, did not return. Mr. Boyd took the cubs home, where they are now as playful as a pair of kittens.

—Henry Lamb, mill-owner, of Highland Creek, left home the other day to go to Eganville with a load of lumber. He halted on the road to feed his horses, and made himself comfortable by lighting a fire in a stump. He fell asleep, and in his dreams, it is supposed, removed his purse from his pocket and placed it near enough to the fire to be consumed. At least he found purse and twenty dollars in bills missing, and the loose silver lying near the stump.

—Application has been made to the Dominion Government for the incorporation of the Gilles Bros. & Co., who propose to acquire as a going concern in all its branches the business of lumbering and manufacturing of lumber now carried on by James Gillies, William Gillies, John Gillies and David Gillies, under the name, style and firm of "Gillies Bros.," and to carry on throughout the Dominion of Canada, the United States of America and elsewhere, the business of lumberers, timber merchants and manufacturers of timber and lumber in all its branches, and also of pulpwood, pulp and other products from wood materials, and may for all or any of the purposes purchase, lease or otherwise acquire any licenses to cut timber, timber limits, lands, buildings, works, goods, wares or merchandise and other property, real and personal, movable and immovable, and improve, manage, develop, lease, mortgage, exchange, sell, dispose of, turn to account or otherwise deal in the same.

Berry Bros' shingle factory and planing mill, Providence Bay, has commenced running for the season. A new Butterfield shingle machine has been put in, which turns out excellent work. The firm has orders for 300,000 shingles.

QUEBEC.

—John Dougall has bought an outfit for a planing mill which he is establishing at Carberry.

—Messrs. Goddard & Scott, Knowlton, are putting in machinery for the manufacture of cheese boxes.

—The dam at Ham's sawmill, Massawippi, was swept away a week ago, causing a heavy loss of logs to Mr. Ham.

—Hurdman's new mill in Hull will be ready to saw logs about 10th inst.; capacity, when in full working order, 1,200 logs a day.

—A. Neilson & Co., doing a lumber business in Valcartier and Stoneham, have assigned. The liabilities are about \$15,000, the assets consisting of timber lands, lumbering implements, and a mill in course of construction.

NEW BRUNSWICK AND NOVA SCOTIA.

—E. D. Jewett & Co., lumber, St. John, N.B.; estate sold en bloc.

—N. N. Bentley, lumber, Five Islands, N.S.; bill of sale \$1,401.

—There will be about 10,000,000 feet of deals to ship out of the river Herbert, N.B., this season, which will employ about ten schooners to carry them away. Mr. McKean, of St. John, has purchased 3,000,000 feet of deals in Shulee.

—Davis & Grey, of Leicester, N.S., have taken out 200,000 superficial feet of timber; B. B. Barnhill, of Two Rivers, 2,500,000 feet of logs; Shulee Lumber Co., 3,000,000 feet of lumber; B. B. Powers, of Salt Springs, 3,500 spruce logs. Philip Casey has re-purchased an interest in Davis & Grey's mills.

—The Herald, Chatham, N.B., says: Never in the history of lumbering has the season for stream driving followed logging so closely. Quite a number of the lumbermen have, instead of breaking up their camps for a few weeks and sending the men out, put them to work on the streams. They will bring the logs with them.

—The Bridgetown, Monitor, N.S., chronicles the following with respect to ship-building in Kings county: C. R. Burgess intends to launch his 600-ton barquentine early in May, and will then go to work on a large vessel. Captain Porter has a three-masted schooner on the stocks at Canning, which he will launch next summer. At Spencer's Island Capt. W. H. Baxter has a three-masted schooner of about 300 and 400 tons, which he will launch in the autumn, and has laid the frame for another in Canning.

—A report from Edmundston, N.B., says there is a boom in the shingle trade just now. The fine quality of our cedar is commanding high prices on the American market, and several mills are being erected on the many waterpowers for which this section of the country is noted. Besides the large mill recently built at Fort Kent, Robert Connors will have six shingle machines sawing this summer near his place. He has purchased the Brown mill at Grand Falls, and intends removing it to St. Francis. Duncan Sinclair is putting in a steam power, whilst Mr. Wheelock is busy rebuilding on the site of his former mill, lately destroyed by fire.

BRITISH COLUMBIA.

—Shipping intelligence of the month tells of an encouraging measure of activity in lumbering circles. The British ship Mount Carmel, 1,596 tons, Captain Livingston, has left Vancouver to load lumber at Port Blakely for Valparaiso. The British ship Burmah, 1,647 tons, Captain Pitt, sailed from San Francisco for Vancouver on April 5. She is under charter to load lumber at Moodyville for Valparaiso at 36s., by Welch & Co. The Norwegian bark Emblem, 1,152 tons, will probably load at Burrard Inlet for the United Kingdom, as may the British ship Crown of Denmark for Melbourne, but these charters are not definitely settled. There are now four vessels loading at the Hastings mill.

MANITOBA AND THE NORTHWEST.

—The Wishart furniture business, Winnipeg, is being closed out, and Wishart is moving to Toronto.

—Mr. Storey, who has recently returned from England, will take his old position as chief engineer in J. A. Christie's mill, Brandon, Man.

—The Western Lumber Company have appointed John Arbuthnot manager of their Winnipeg branch, in place of Mr. Van Etten, who is now representing the company as travelling salesman.

The following are the new officers of the Western Lumbermen's Association of retail dealers, Winnipeg: President, A. Black, Winnipeg; vice-president, Mr. Barclay, Brandon; secretary-treasurer, G. B. Housser, Portage la Prairie.

TRADE REVIEW.

Office of CANADA LUMBERMAN, } April 30, 1892. }

THE GENERAL SURVEY.

NATURE is doing her part in helping on trade. Despite a lack of the proverbial showers during the month of showers, and an overflow of March winds into April, spring weather has come in upon us in nice shape.

When Gall, Anderson & Co., wholesale lumber merchants, of the city, were first forced to call their creditors together many hoped they would get through with a compromise, and avoid the necessity of an assignment.

In the several provinces we have little to add to what is chronicled under the classified headings. In Quebec and New Brunswick the trade rests to sufficient extent on British conditions that we must hope for a revival across the Atlantic before the volume of business will materially increase here.

In the United States lumber is active, which cannot be said of Great Britain nor foreign fields generally.

NEW BRUNSWICK AND NOVA SCOTIA.

The Sackville Post says of the winter's cut in Cumberland, N.S., that when the total is footed up there will be a decrease of fully twenty millions of logs between the figures for this and last year.

QUEBEC.

Business is largely in a waiting condition. English markets have not shaped as well as we had hoped, and until a favorable turn takes place there we cannot expect a boom on this side of the water.

MANITOBA.

Orders for stocking up of the yards at the chief centres of the

province are coming forward in a fashion that augurs well for a good spring and summer trade. Another hopeful omen is the stiffening of prices at the mills in sympathy with increased prices at neighbouring points in the States.

BRITISH COLUMBIA.

Spring trade has as yet developed in only a moderate degree. Export shipments are slow, but with a slightly improved outlook. Australian freight rates have declined; freight to Puget Sound steady.

GREAT BRITAIN.

Reports from Great Britain do not give much hope for a large summer trade. Denny, Mott & Dickson, of London, in their report of April, say: "The first quarter of the year has been most unsatisfactory in respect to the volume of trade, which has been of a very meagre and hand-to-mouth character.

UNITED STATES.

The natural impetus that comes from the spring season is being felt, less or more, at all lumber centres. New York is, perhaps, least favorably affected by this condition, as it is once more experiencing the hurtful influences of a possible strike.

TORONTO, ONT.

TORONTO, April 30, 1892.

Table listing lumber prices in Toronto, Ontario, including items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

Table titled 'YARD QUOTATIONS.' listing various lumber products and their prices, including Mill cull boards, Shipping cull boards, Scantling and joist, etc.

MONTREAL, QUE.

Montreal, April 30, 1892.

Table listing lumber prices in Montreal, Quebec, including Pine, 1st qual., per M, Oak, Walnut, etc.

ST. JOHN, N.B.

St. John, April 30, 1892.

Table listing lumber prices in St. John, New Brunswick, including Spruce deals, Pine, Deal ends, Scantling, etc.

OTTAWA, ONT.

Ottawa, April 30, 1892.

Table listing lumber prices in Ottawa, Ontario, including Pine, 1st qual., per M, Pine 2nd, Pine shipping culls, etc.

QUEBEC, QUE.

Quebec, April 30, 1892.

Table listing lumber prices in Quebec, Quebec, including White Pine in the raft, Elm, Ash, Birch, Tamarac, Staves, Deals, etc.

BOSTON, MASS.

Boston, Mass., April 30.—The spirit of depression that for so many months has hung over lumber operations at the Hub is being fast supplanted, as spring opens out, with one of cheerfulness and confidence.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing prices for Eastern Pine cargo or car load, including Nos. 1 and 2, 4 ft. sap extra, etc.

WESTERN PINE—BY CAR LOAD.

Table listing lumber prices for Western Pine by car load, including items like Uppers, Selects, and Moulding boards.

SPRUCE—BY CARGO.

Table listing lumber prices for Spruce by cargo, including items like Scantling and plank, Yard orders, and Clear floor boards.

LATH.

Table listing prices for Lath, including Spruce by cargo.

SHINGLES.

Table listing prices for Shingles, including Cedar, Pine, and Cypress.

OSWEGO, N. Y.

OSWEGO, N. Y., April 30.—Trade is experiencing an impulse from the opening of navigation at this point.

WHITE PINE.

Table listing prices for White Pine, including Uppers, Pickings, and No. 1 cutting up.

SIDING.

Table listing prices for Siding, including 1 1/2 in. selected, 1 1/2 in. dressing, and 1 1/2 in. No. 1 culls.

IX12 INCH.

Table listing prices for IX12 inch lumber, including 12 and 16 feet, mill run, and 12 and 16 feet, dressing and better.

IX10 INCH.

Table listing prices for IX10 inch lumber, including 12 and 13 feet, mill run, and 12 and 13 feet, dressing and better.

IX4 INCH.

Table listing prices for IX4 inch lumber, including 6, 7 or 8, mill run, and 6, 7 or 8, drsg and better.

SHINGLES.

Table listing prices for Shingles, including XXX, 18 in. pine, and Clear huts, pine, 18 in.

LATH.

Table listing prices for Lath, including No. 1, 1 1/2, and No. 1, 1 in.

BUFFALO AND TONAWANDA, N. Y.

TONAWANDA, N. Y., April 30.—One can hardly say, even with navigation open, that business has started off with the rush that was expected.

WHITE PINE.

Table listing prices for White Pine, including Uppers, Selects, and Fine common, 1 in.

BOX.

Table listing prices for Box, including 1x10 and 12 in. (No. 3 out) and 1x6 and 8 in. (No. 3 out).

SHINGLES.

Table listing prices for Shingles, including 18 in. XXX, clear and 18 in. XX, 6 in. clear.

LATH.

Table listing prices for Lath, including No. 1.

ALBANY, N. Y.

ALBANY, N. Y., April 30.—The lumber section of the city has once more assumed its old-time bustle and stir.

between now and the opening of the canal. New lumber is likely by that time to be available. Hardwoods are active.

PINE.

Table listing prices for Pine, including 2 1/2 in. and up, good, Fourths, and Selects.

SHINGLES.

Table listing prices for Shingles, including Sawed Pine, ex. XXXX, Clear butts, and Smooth, 6x18.

LATH.

Table listing prices for Lath, including Pine and Spruce.

SAGINAW, MICH.

SAGINAW, MICH., April 30.—Contrasted with conditions a year ago it can be said that the market to-day shows an encouraging improvement.

FINISHING LUMBER—ROUGH.

Table listing prices for Finishing Lumber—Rough, including Uppers, 1, 1 1/2 and 2 in., and Selects, 1 in.

SIDING.

Table listing prices for Siding, including Clear, 1/2 in., and Select, 1/2 in.

TIMBER, JOIST AND SCANTLING.

Table listing prices for Timber, Joist and Scantling, including 2x4 to 10x10, 12, 14 and 16 ft.

For each additional 2 ft. add 1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.

SHINGLES.

Table listing prices for Shingles, including XXX 18 in. Climax, XXX Saginaw, and XX Climax.

LATH.

Table listing prices for Lath, including Lath, No. 1, white pine, and Lath, No. 2, W. pine, Norway.

NEW YORK CITY.

NEW YORK, April 30.—Trade is far from opening out auspiciously this season. Labor troubles are in the air and the threatenings of the walking delegate are proving a serious deterrent to manufacturers and contractors.

WHITE PINE—WESTERN GRADES.

Table listing prices for White Pine—Western Grades, including Uppers, Selects, and Fine common, 1 in.

TO STOP THE LOTTERIES.

QUEBEC, April 12.—A deputation of the St. Jean Baptiste Society, consisting of Messrs. L. O. David, Jacques Grenier, J. D. Rolland and L. E. Beauchamp, waited upon the Government this morning and were received by Hons. Messrs. De Boucherville, Casgrain, Nantel, Flynn, Beaubien and Pelletier.



There is but one really sensible thing to do for an overloaded engine—replace it with a larger one. Various makeshifts may be resorted to, but can not give the satisfaction desired.

A maker of wood-planing machines in England has done a very sensible thing in putting a kind of box rack over the table of a chain-fed surfacing machine, so a pile of pieces can be laid in the rack, and the lower one fed into the machine until the whole pile is gone.

Will iron rust cause fire? A good authority says it will, and that when the oxide of iron comes in contact with wood away from the atmosphere the oxygen that was in the iron leaves it and what remains crumbles into small particles of metal with such an affinity for oxygen that as soon as exposed to the atmosphere it becomes red hot, capable of igniting wood very readily.

So long as it was considered that there was some mysterious cause for the explosion of boilers there might have been an excuse for the continued running of a boiler which was in bad order, but it is now very clearly understood that mechanical and chemical action is capable of producing rapid deterioration of boiler plates, and unless these causes are found and removed, an accident will certainly follow.

If those having boilers which have never had any compound used in them, will go to such boilers and knock off the heavy scale, they will in nearly every case, find the plates badly corroded. This was caused by the scale itself. Now, if that scale had been removed by a boiler purger, and the plate had been found corroded, immediately it would have been charged to the purger.

If you will stop to consider a moment, says a writer to Power, you will find that the outside of the belt has the most strain on it, on account of the fact that all the stretching takes place on this side of the belt every time it goes around the pulley; and it ought, therefore, to be the strongest part of the leather. The grain side is the strongest side, as, by splitting the hide close to the grain you get good lace leather, while the flesh side makes very poor leather for any use.

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
"	"	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
"	"	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
"	"	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	
Parry Sound, Ont.	Uttersen	Conger Lumber Co.	Lumber, Wholesale and Retail	
"	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetang	Muskoka Mill and Lumber Co.	2 Saw, Sh. and Lath Mls., W. Pine, Ced., Whol.	Wat., Cir., Gang and Band, 110m
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar	Steam, Circular, 15m
			Oak, Oak Railway Ties, Paving Blocks	
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	
Barrie, Ont.	Uttersen	Burton Bros	Lumber, Wholesale and Retail	
Byng Inlet, Ont.		Georgian Bay Consol. Lumber Co.	Sawmill, Pine, Hemlock, Birch	Steam, Circular, 20m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Anslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
			Lum., Tim. Pine, Hem., Hwds., Whol. and Ret.	
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Water, Band and Circular, 100m
		Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Charlton, J. & T.	Sawmill, Pine, Ash, Birch, Oak, Wholesale	Steam, Circular, 25m
		Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
		Howry, J. W. & Sons	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Lumber, Ash, Elm, Maple	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Midland, Ont.	Midland	Peters & Cain	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 15m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	
Norman, Ont.	Norman	CAMERON & KENNEDY	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 4m
		Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
"	"	Ontario Lumber Co.	Lumber, Wholesale	
"	"	Shannon Shingle Manufacturing Co.	Shingle Mill, Pine, Cedar	Steam, 8m
"	"	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakay, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Steam, Circular and Band, 50m
		Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin. Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
		SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin. Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	"	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

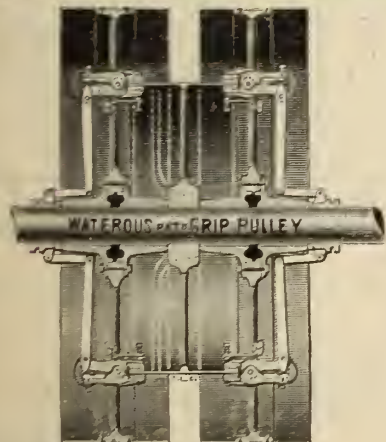
We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

CORRESPONDENCE SOLICITED

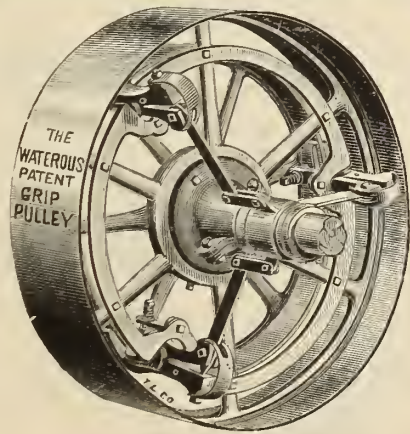
OAK TANNED BELTING

TORONTO
20 FRONT ST EAST
TELEPHONE 475

THE J.C. McLAREN BELTING CO MONTREAL



SECTIONAL VIEW (2 pulleys on 1 grip ring).



A 3-GRIP PULLEY.

MADE WITH 2, 4, 6 or eight grips, transmitting any power.

W. B. & S. ANGLIN, sawmill, Kingston, write 24th Feb., 1892: "The grip pulley still continues to give good satisfaction and is a good convenience, as we do not have to stop the rest of the mill or throw off belt when filing saw."

HALL & PRICE, sawmills, Quebec, write Feb. 24th, 1892: "We have been using your grip pulleys for some time, and they give every satisfaction. They are not liable to get out of order and do not require much attention or adjustment."

Our Motto.

Grips always motionless when out of clutch.

WATEROUS
BRANTFORD
CANADA

ROBIN & SADLER
MANUFACTURERS OF
Leather Belting
SPECIALTIES
DYNAMO BELTS
WATERPROOF BELTING
MONTREAL TORONTO
2518 & 2520 NOTRE DAME ST, 129 BAY ST.

Send for sample of our new SAWMILL BELT

The Rathbun Company

DESERONTO, ONT.

MANUFACTURERS OF

Doors, Sash, Blinds, Stairs

And all kinds of House-Finishing Materials

CEDAR OIL for Purging Boilers

CORRESPONDENCE SOLICITED

J. MUCKLESTON & CO.

KINGSTON, ONT.

MANUFACTURERS OF :: :: ::

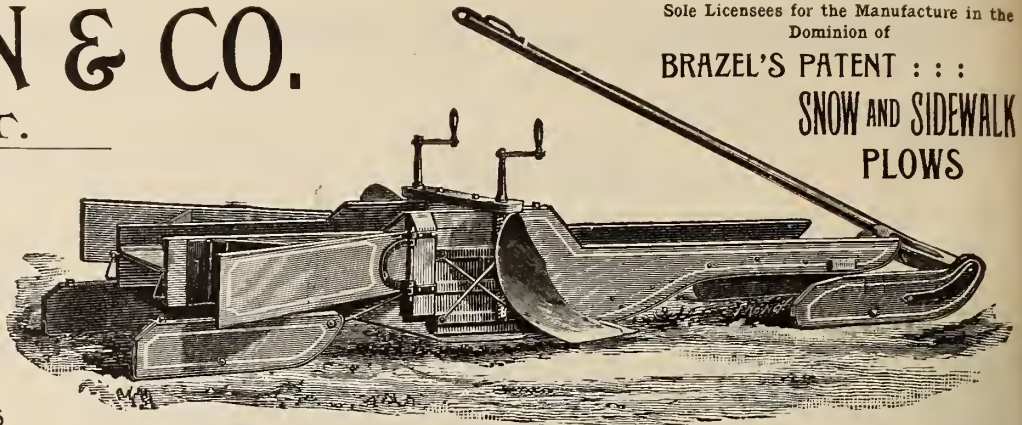
"RED TOP LINE"



Lumbermen's Tools

Gant Dogs
Peavies

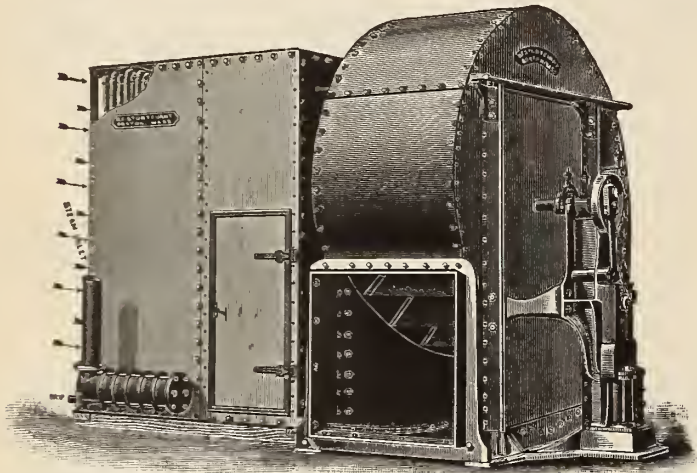
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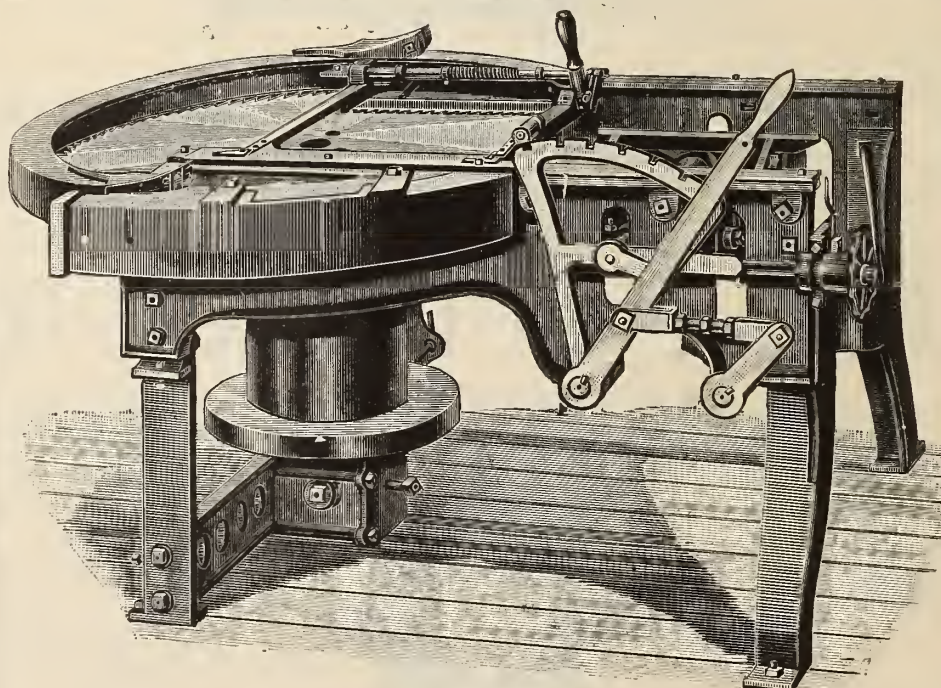
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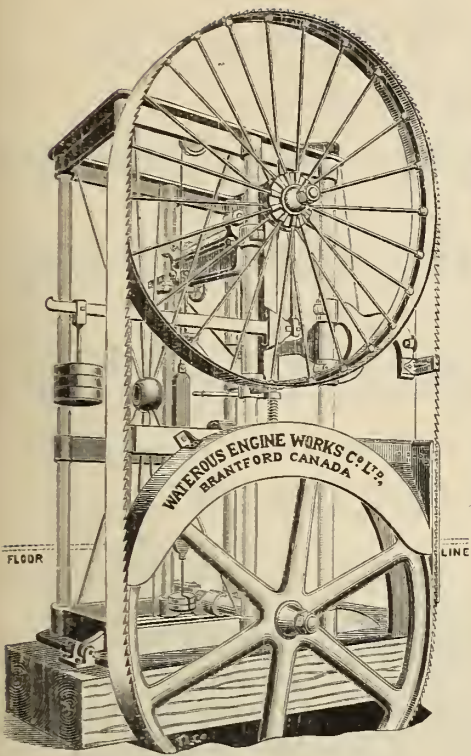
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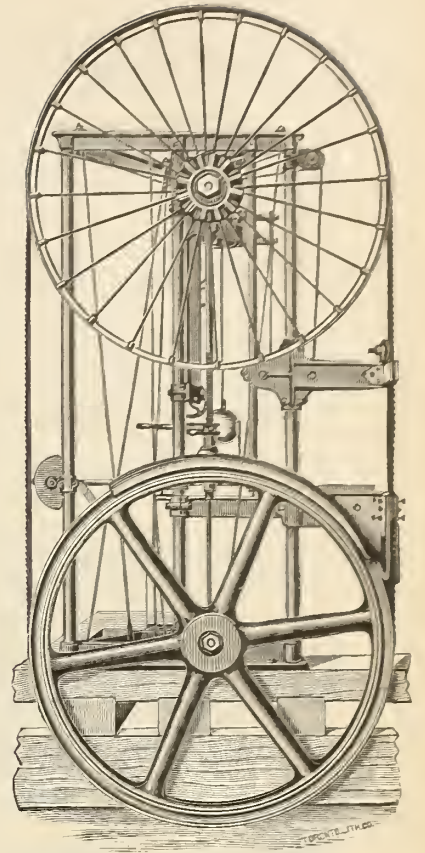
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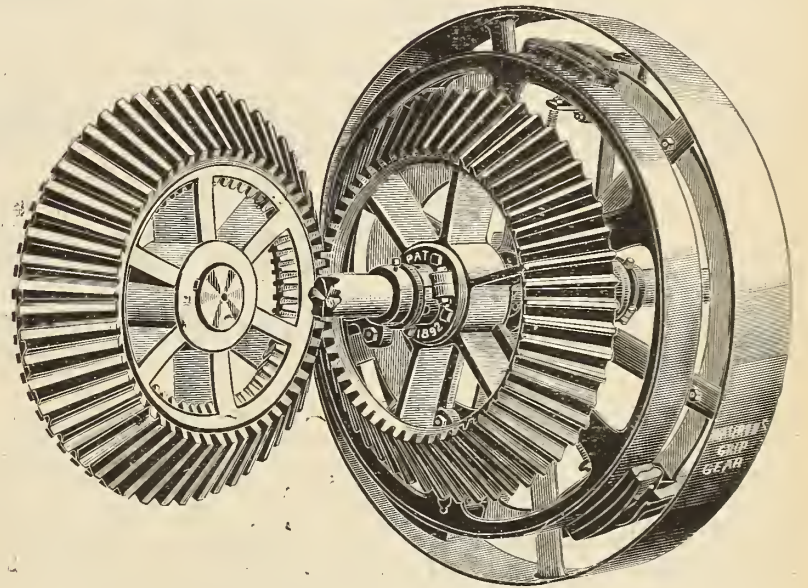
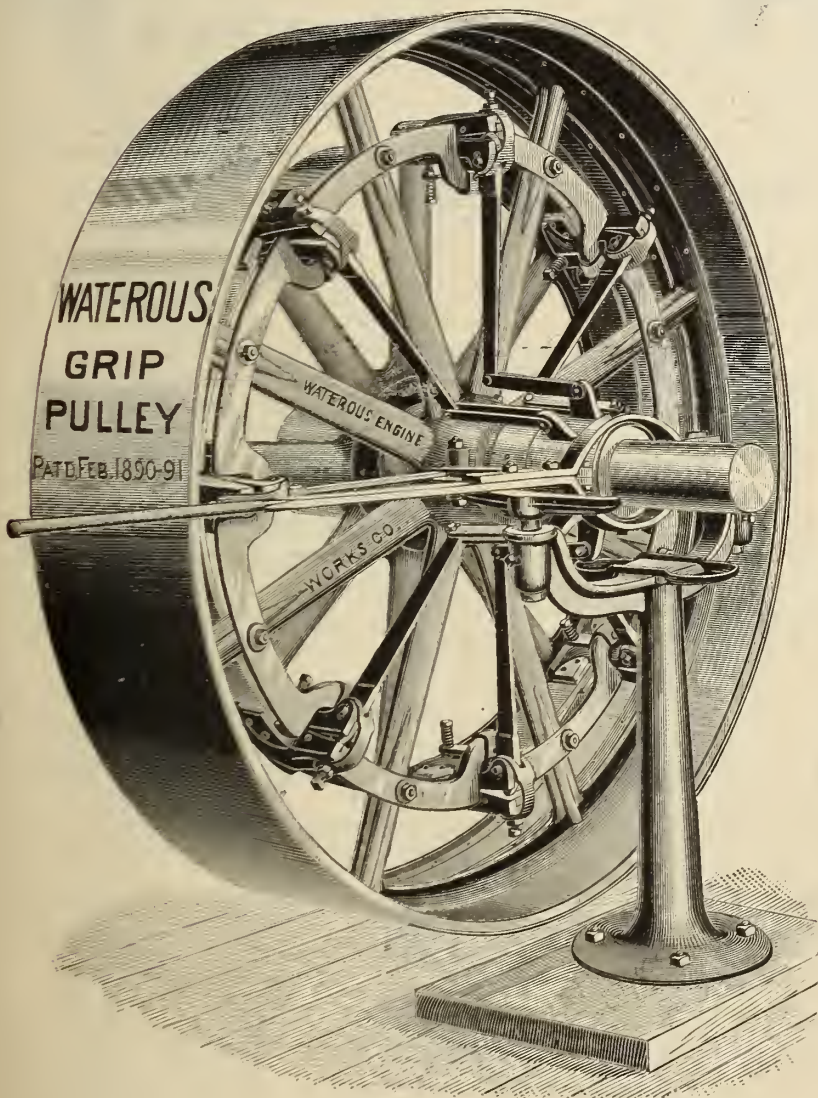
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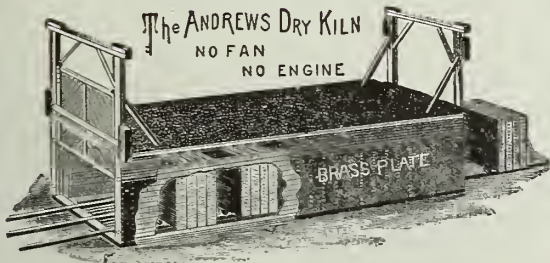
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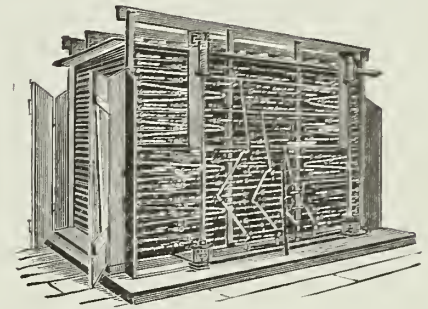
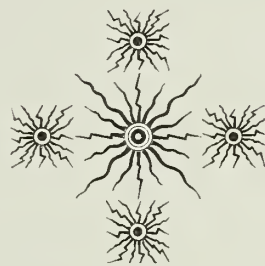
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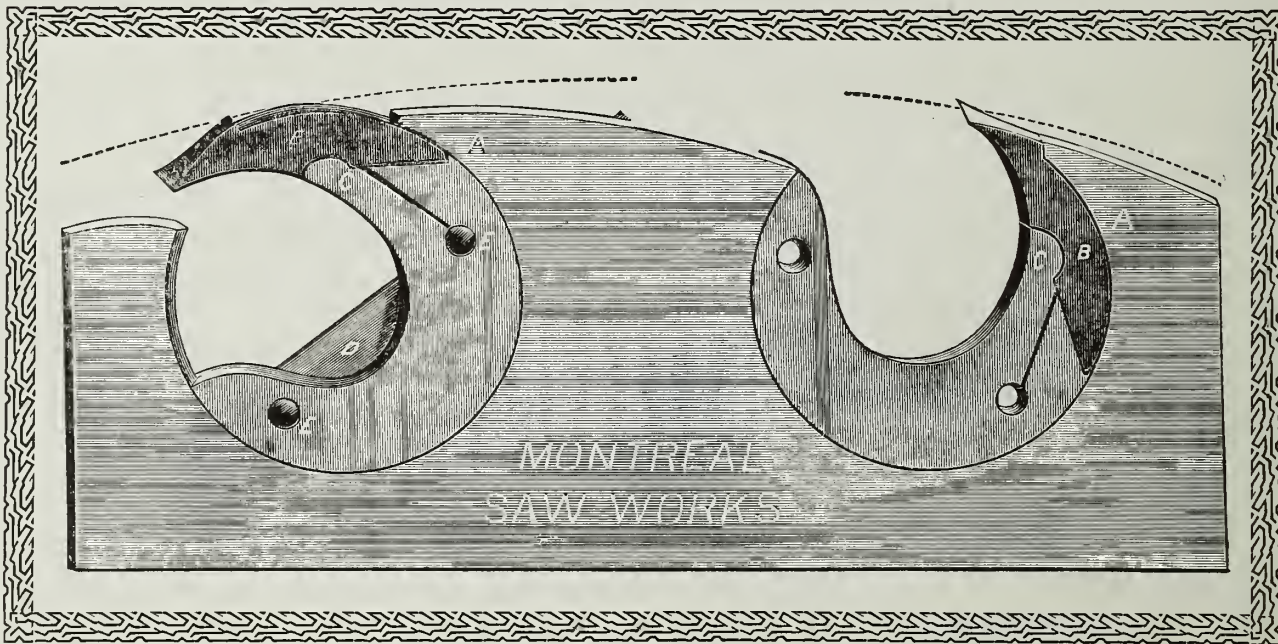
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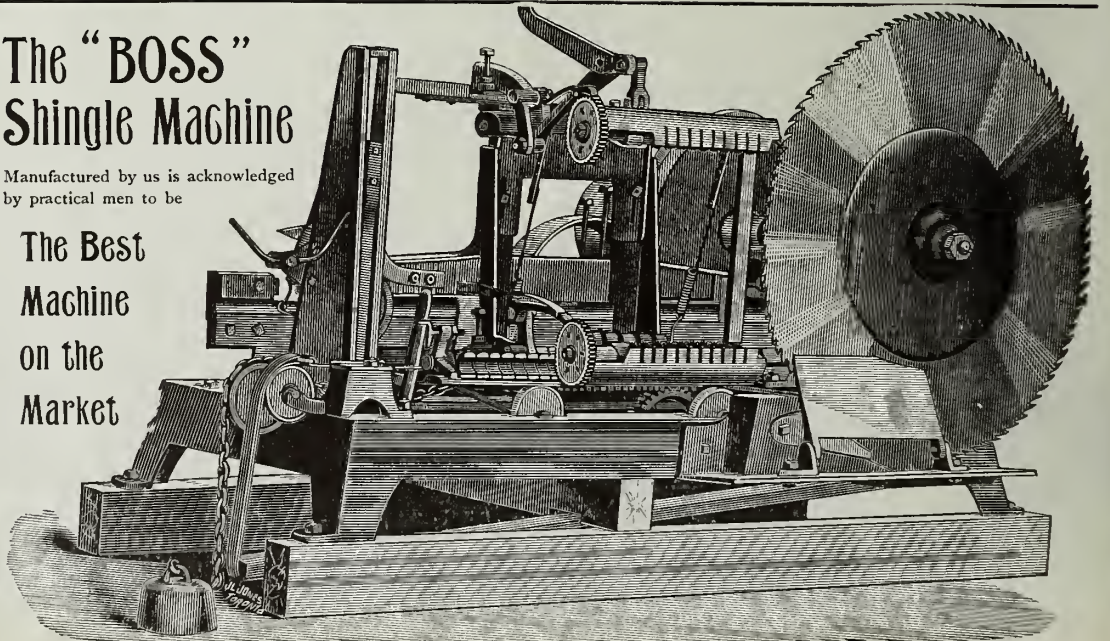
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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIII.
NUMBER 6.

TORONTO, ONT., JUNE, 1892

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Yours truly, H. G. TORREY.

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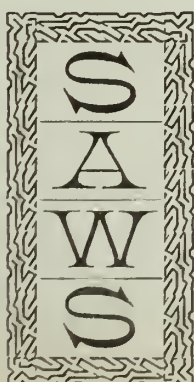
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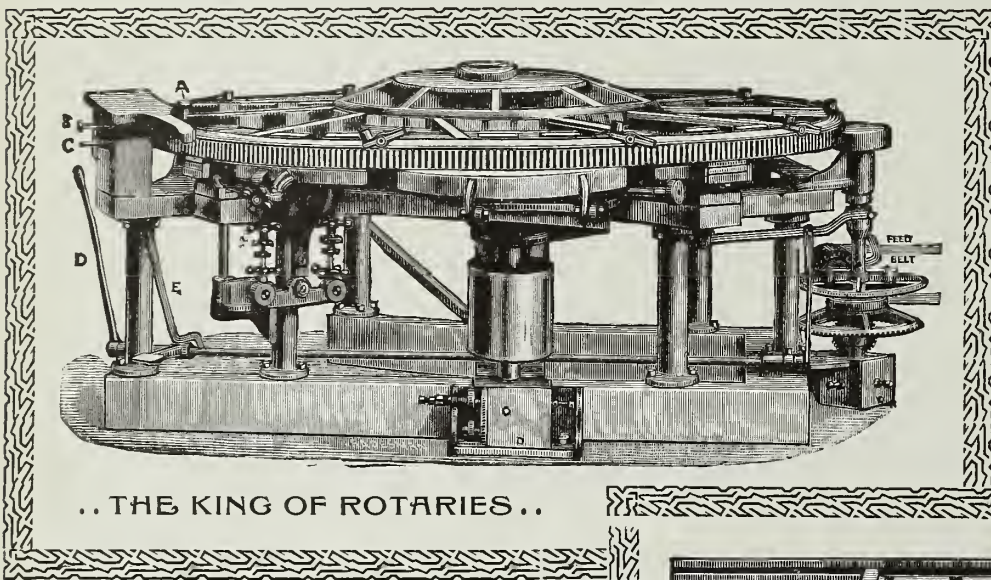


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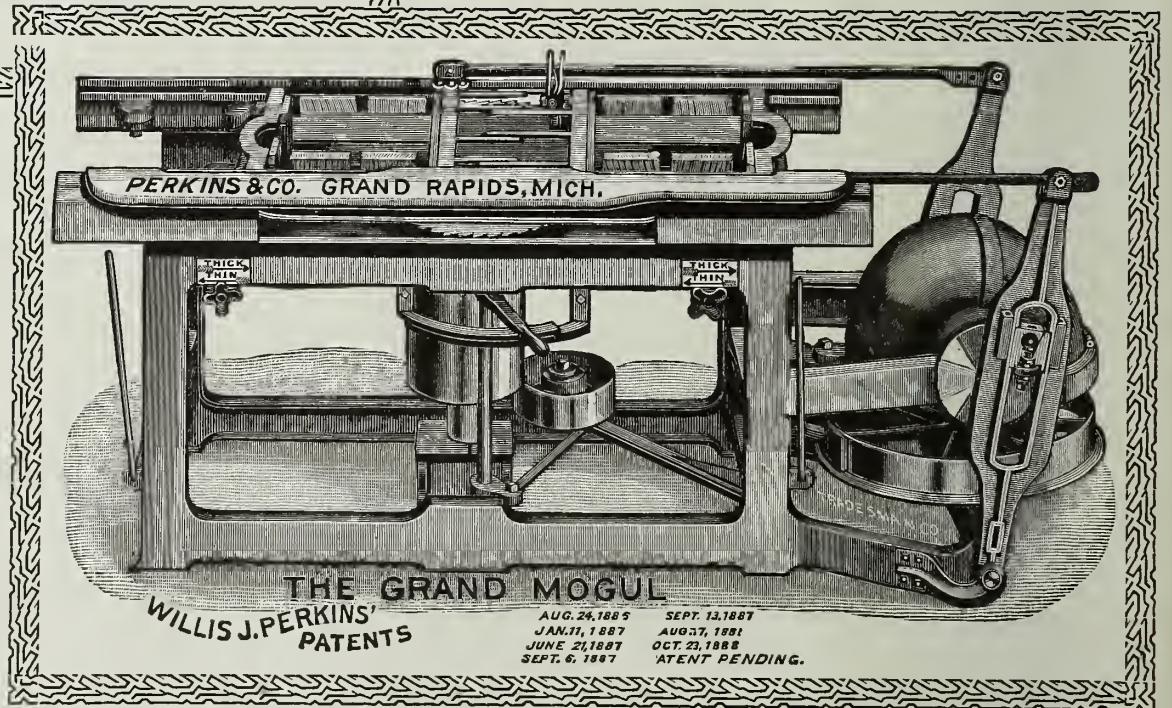


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THE CANADA LUMBERMAN

VOLUME XIII. }
NUMBER 6. }

TORONTO, ONT., JUNE, 1892

TERMS, \$1.00 PER YEAR
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CHARACTER SKETCH.

MR. J. B. MILLER.

"Every person has two educations, one which he receives from others and one which he gives himself."—Gibbon.

IN the LUMBERMAN character sketch of a month ago we told the life-story of one of the pioneer lumbermen of this country, Hon. J. K. Ward, of Montreal. We shall talk this month of one of the younger men of the trade. Mr. Ward is seventy-two years of age. Mr. J. B. Miller, of whom we now write, has yet to celebrate his thirtieth birthday. Between these two leading representatives of the Canadian lumber trade there can be drawn not a few parallels, as well as contrasts. Mr. Ward's activity in business, at an age when men usually seek retirement and ease, is an illustration of the vigor and continued effort that may accompany years of active work. In Mr. Miller, who is president of the Parry Sound Lumber Co., one of the largest concerns in this province, operating several mills and extensive timber limits, we find a type of the young men of the present day, who are to be found everywhere, controlling many of our largest commercial concerns.

Mr. Ward represents the lumber trade of Quebec with its own individual conditions and indigenous characteristics. Spruce more than pine is the product of that province. Mr. Ward has shown his loyalty to his convictions in the valiant battle he has waged for a readjustment of the spruce duties on lines more conducive to the growth and prosperity of this important wealth-producing element of Quebec. In Ontario, where Mr. Miller's interests are placed, white pine is king, and from his point of view we can understand that the president of the Parry Sound Lumber Co. has no serious quarrel with the duties on lumber as they rule at present, whilst he would be satisfied, doubtless, were it so decreed that we should have entire free trade in lumber.

It was a saying of Napoleon that "he never blundered into victory; he won his battles in his head before he won them in the field." Mr. Ward could never have attained the success that crowns his seventy-two years busy life, nor would it have been possible for Mr. Miller to have grasped the details and volume of business that were given over to him before he had reached his majority, owing to the declining health of his father, who was principal of the Parry Sound Co., and handled these with magnificent success ever since, without each first fighting out their respective battles in their head. "With what do you mix your colors?" was the innocent enquiry put to a celebrated artist by one who had been dazed with the beauty of the work he was viewing. "With brains," was the laconic but forceful reply of this master on canvas. This is the element that Mr. Miller for twelve years past has thrown into the management of his varied and extensive undertakings.

Mr. J. B. Miller was born in the County of Leeds in July, 1862, consequently he is a month away from his thirtieth birthday. His father was J. C. Miller, M.P.P., a lumberman of extensive operations, who died in 1884. The younger Miller was educated in Toronto, primarily at the model school, following up the years at that institution with a course in Upper Canada College. His father's health declining he abandoned his academic studies in 1880 to assume the responsibilities of the extensive business conducted by the senior Miller. How completely he fitted into the large niche which the continued illness of the father, followed later by his death, made necessary, has been intimated in what is already written of this sketch, and finds ample illustration in the growth, extent and present position of the Parry Sound Lumber Company with its manifold connections and operations.

The principal mill of this company is that on the

Seguin river, having a capacity of 15,000,000 feet annually. Every facility has been given to manufacturing in the first-class equipment of the different mills of the company, and in shipping conveniences in the erection of splendid docks from which an immense barge, the largest lumber barge in the upper lakes, and costing \$100,000, plies, connecting with several ports of the Georgian Bay and Lake Huron. Over 400 square miles of pine lands, heavily timbered, are held by Mr. Miller.

Mr. Miller is interested in a number of commercial undertakings in Toronto; prominent among these is the extensive works of the Polson Iron Co.

In 1883 he married Miss Hunter, daughter of Robert Hunter, now deceased, and formerly of the firm of Hunter, Rose & Co., Toronto.

Mr. Miller is a resident of Toronto. During the summer months, with his family, he finds no inconsiderable enjoyment voyaging around and exploring the many beauties of nature that have their place in the picturesque region of Muskoka and Parry Sound.

Standing an onlooker at Eton one day, observing the students at their games, Wellington remarked: "It was



MR. J. B. MILLER.

there the battle of Waterloo was won." "All work and no play makes Jack a dull boy." Taking an occasional respite from the laborious duties imposed by a business of the size of Mr. Miller's, he but acts on the lines so wisely suggested by the remark of the Iron Duke. He takes a lively interest in military affairs and is a lieutenant in the Queen's Own. Just how genial and sociable Mr. Miller is at all times ask those whose privilege it is to join him in one of his yachting expeditions, or in other ways meet him in social intercourse.

LABOR-SAVING DEVICES.

NEW machines can not be prevented, nor should they be, since they enrich the world, and have made the workingman's progress to be what it is already. He never had a fraction of his present comfort till steam machinery began to do his work for him. House, clothing, good food, education, clubs, newspapers, all his advances are the result of modern machinery. It is the Atlas which carries the world's welfare on its shoulders; every bit of work it does is so much lifted from the strain and drudgery of the laborers as well as of the rest of us. By cheapening production it increases consumption,

which calls for more labor, which new labor is easier than before the machine went to work. Think of the toil of the old fashioned farmers in the harvest, compared with that of him who now sits on his reaper and binder in comparative ease all day! The workman who learns to understand new machinery rapidly and helps to work it, is the man of his time, and this should be the model and ambition of all. The times reward the nimble and quick-witted—which all should make haste to become. And the duty to do so is laid upon them by nature, not by society. Society can not prevent men from thinking out improvements which nature puts into their heads. And, therefore, the workman must keep himself right with nature, as, indeed, he is learning to do.

The readjustment of laborers consequent upon the perpetual invention of improved machines is a source of perpetual disturbance everywhere, and always has been in civilized societies. So are changes of fashion, as when shoe buckles went out, a large body of buckle makers were brought to destitution. Both, however, are only a part of the general social movement, which is incessant and endless. The only way the individual can keep his place is by enlarging his range of industry. The workman must be quick to learn new things. He must cease to think of stopping the flood of novelties, and learn to swim in it. Business men of all kinds are troubled by the same instability of affairs. He who will not change is submerged; he who changes with the times gains by the times' changes.

POLISHING WOOD WITH CHARCOAL.

A METHOD of polishing wood with charcoal, now much employed by French cabinet-makers, is described in a Parisian technical journal. In this cosmopolitan city may be seen many articles of furniture of a beautiful dead-black color, with sharp, clean-cut edges and smooth surfaces, the wood of which appears to have the density of ebony. As against furniture rendered black by paint or varnish, the difference is so sensible that the great margin of price value between the two kinds of work explains itself. The operations are much longer and more minute in the case of charcoal polishing, which respects every detail of carving, while paint and varnish would clog up the holes and widen the ridges. In the first process only carefully selected woods are employed, of a close and compact grain; they are covered with a coat of camphor dissolved in water, and afterwards with another, composed chiefly of sulphate of iron and nutgall. These two compositions, in blending, penetrate the wood, giving it an indelible tinge, and at the same time rendering it impervious to the attack of insects. When sufficiently dry, the surface of the wood is rubbed at first with a hard brush of couch grass and then with charcoal of substances as light and pliable as possible. Any hard grains remaining in the charcoal scratches the surface instead of rendering it perfectly smooth. The flat parts are then rubbed with natural stick charcoal, and the indented portions and crevices with charcoal powder. Alternately with the charcoal, the workman also rubs the furniture with flannel soaked in linseed oil and essence of turpentine. Repeated pouncings cause the charcoal powder and oil to penetrate into the wood, giving the furniture a beautiful color and also a perfect polish without any of the flaws of ordinary varnish.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

VIEWS AND INTERVIEWS.

A Logging
Wrinkle.

Somebody thinks themselves clever. We let our readers have the benefit, be it much or little, of the following wrinkle in logging which is somewhat freely going the rounds of the Canadian press. This is what our friend says: "As a rule it takes two men to pull a 6 or 7 ft. saw, but this way one man and a small pole will do the work. Cut a small pole the size of a fishing rod about 8 ft. long. Then tie a strong cord 3 ft. long, having a small hook to fasten in the eye of the saw, to the small end. Force the larger end of the pole in the ground on the opposite side of the tree you wish to saw and pull. The spring in the pole will pull the saw back every time."

Wooden Shoes
In Europe.

We had something to say some months since of the extent to which wooden shoes are worn in the western states, but it is in Europe that the wooden shoe is more in vogue. Recent estimates place the number in Europe who wear wooden shoes at 70,000,000 people, one jobbing house in Paris disposing of 1,000,000 pairs each year. The ordinary every-day sabots are made of basswood, but there are finer shoes made of other woods. Basswood is light and does not split. In Europe poplar and willow are used, but poplar is inferior to basswood, and willow is the best of all. Beech makes a good shoe, as do walnut and birch. The harder, finer woods are used for Sunday shoes in the old world, but in this country, where sabots are worn for rough tramping only, the cheaper woods answer the purpose. Basswood is bought in stove lengths at \$2 a cord. A cord of wood will make 60 to 80 pairs, so it can be seen that the material does not cut much of a figure as to cost of production. The wholesale price for wooden shoes in this country is \$3 a dozen for adult sizes, \$2.40 for medium, and \$1.80 for children's sizes.

Slipshod
Employers.

The employer does not hesitate, and rightly, to condemn the indifferent workman. The man who does not throw heart into his work, whether it be ruling a kingdom or sweeping a street, is a useless workman. But, who makes the careless workman, in part, at least? Slipshod methods, as the system of the shop, have no little to account for. To use the illustration of one writer on the subject: "Hurry up, it's good enough," has spoiled many a good man, and if an employer habitually crowds his men with more work than they can properly accomplish, denies them the right, as it were, to honestly perform their allotted tasks, he has only himself to blame if eventually they become as careless as he is. Where such shiftlessness involves a loss to the customer it becomes culpable dishonesty, and the employer who permits this has only himself to blame if he becomes eventually the victim of his workman's lack of rectitude. We are weary of reading dolorous complaints and criticisms where the power to remedy the evils complained of rests with the complainer. There would be an immediate and permanent decrease in the number of lazy and negligent workmen if every employer kept up to the mark himself and had those he paid do the same thing." It is the old story: like priest like people, like master like servant.

Squaring the
Wage Question.

It does not seem unlikely that the eight-hour-day agitation at the forthcoming general elections in Great Britain may overshadow even the Home Rule question, which is being kept in the front of the Liberal platform. Whether in the older world or this newer country the wage question never downs. We seem not to touch bottom; it looks sometimes as though we did not try to reach bottom. We deal with systems, not men; and imagine we can square all men with the same measuring rule. Centuries of experience have proven the futility of the effort, though we still go on in the same perverse lines. Why not try dealing with men for a change? The Lumber World asks the question: "Can the salary question be perfectly squared? That is, can an employer, who pays so much a day, do anything to encourage an active, industrious, intelligent and skilled workman, and to draw out his best qualities? Or can he do anything to spur up the indolent, loafing, ignorant

and clumsy man alongside? Evidently not, so long as the work is paid for by the hour rather than by the product. I am convinced, from long observation of men in shops, that the best way to grade men's wages is to grade by the output. In other words, wherever piece-work is possible, the employer and employee alike will be better served by counting pieces and paying by the piece. That method puts a premium upon the good work of the skilled worker, and it puts a discount upon the bad work of the bad worker. It is no encouragement to a particularly good worker to have his superior work bunched with the inferior work of his elbow neighbor, and to be paid just the same as the man whose fingers are all thumbs and who would rather loaf than work. It simply encourages the inferior worker to go on and remain inferior." Does not this sound like common sense? Where the method has been adopted its common sense practicability has been shown. What is required is a more general application of the rule.

Masts
100 Feet High.

What would lumbermen say in this day of ship-building to masts 100 feet high? But we write of the past not the present. A writer on the subject of ship-building among the ancients says: "Large ships were not unknown to the ancients, and some of the most roomy attained dimensions equal to ships of modern times. Nevertheless they were unmanageable monstrosities, almost at the mercy of wind and wave, and utterly unfit to cope with the fury of a hurricane. Doubtless we are indebted to travelers' tales for the detailed descriptions that survive the lapse of ages. Constantius conveyed from Heliopolis to Rome an obelisk weighing 1,500 tons, and, in addition to this long-coveted monolith, the ship carried about 1,200 tons of pulse stowed about the small end of the obelisk in order to bring the ship on an even keel. In 268 B.C., Archimedes devised a marvelous ship for Hero of Syracuse. Her three lofty masts had been taken from Britain. Luxuriously fitted sleeping apartments abounded, and one of her banqueting halls was paved with agate and costly Sicilian stone. Other floors were cunningly inlaid with scenes from the "Iliad". Stables for many horses, ponds stocked with live fish, gardens watered by artificial rivulets and hot baths were provided for use or amusement. Ptolemy Philopator possessed a nuptial yacht, the "Thalamegon," 312 feet long and 46 feet deep. A graceful gallery, supported by curiously carved columns, ran round the vessel, and within were temples of Venus and Bacchus. Her masts were 100 feet high, her sails and cordage of royal purple hue."

Tongues
In Trees.

"Sermons in stones, texts in trees, books in the running brooks, and good in everything," as Shakespeare so broadly expressed it, was perhaps the thought in the mind of a writer in the St. Louis Lumberman when he descanted as follows on the language of trees. He has said: "The lumberman is never out of school when in the woods. All he wants is a pair of good optics and an ounce or two of reflective brain. With these in operation he need never be blank in his mind or without a free library. The study of an acorn, a cedar cone or a pine seed will steady the observer's faith in the value of little things, the necessity of time for growth and maturity, and what, when united, the products can do, even of trees, supposably created to furnish warmth for cold fingers, or be transformed into shingles, fence posts or barn doors. A grove of oaks may shelter a spring that can irrigate a county; a cluster of cedars may stay an avalanche, and a clump of pines turn the course of a mountain torrent. If the observer is disposed to envy the higher status of his neighbor or friend—the willow that clings to the swamps or the stream; the fir tree to the crag; and the cedar to the solitary morass, and each in its place maturing in size and serving its purpose, is a lesson of content by no means thrown away in this age of unsatisfied ambition and untiring energy. Again, if the woodsman is disposed to be critical with his circumstances, to look on the dark side of life, and in his struggle with adverse conditions he weakens in backbone and grit, he can see in the old oak that has been rocked in the storms of a hundred years that it is what it is by its brave contest with tempest and gale. It is sturdy

and vital, when others of its kind, sheltered in ravines and protected in forests, have long ago succumbed to the tap of the woodpecker and the tooth of time. It is in this way and only by this process of struggle and courage that the sturdier qualities of character are in any case developed. A study of this kind is good for any man in the dumps. The fact that no tree is useless, however cheap in the market or outside of demand, is a practical lesson to the man who is apt to demur at his lot or his talents. The cedar cannot say to the pine tree: "You are of no use," or the walnut to the willow: "You are a waste of space and leaves." If one is put into furniture and the other into barn floors, and one is utilized in a palace and the other in a laundry, each has its place and specific value. There was no spoil timber in the plan of creation, and from a witch hazel to a redwood tree, the uses of each, as the wheels and springs in a watch, are practically indispensable to the interests of all. It is so in human life; no man worthy of his mother's milk is without value in the economy of nature."

THE ORIGIN OF SAWMILLS.

IT cannot be denied that our forefathers executed their work well, but in many respects they were peculiarly wasteful in both time and material to attain this end. This can be particularly noticed in the latter case in the history of sawmills. Owing perhaps to their prejudices or the superiority of splitting timber over sawing timber in the simple early mills, sawmills were not encouraged to any extent until the seventeenth century, although their invention dates much farther back. Even this sounds a crude age for this ingenious tool to be used, but we must not forget that the invention of the saw by the Greeks dates far back into the misty ages of time. When we compare this age and the time which elapsed before its universal adoption, we see how great our forefathers' prejudices against new inventions were. Indeed so great was the quantity of timber wasted by splitting in Russia in the sixteenth century that Peter the Great forbid it to be transported on the Neva. But in spite of this, split timber is still used for many purposes because of its superior strength and toughness. Germany in ages back is well known to have been a great inventive country, and we find that the Germans had the honor of erecting the first sawmill on the banks of the little river Rœur, in the fourth century. The early mills were all either driven by wind or water, and this early mill was driven by water. True, this mill is stated to have been for sawing stone, but there is no doubt that those for sawing wood were erected contemporaneously. This mill appears to have been the only one erected for hundreds of years, for they were not universally used, and many later writers speak of sawmills in their time as new inventions. The next instance we find of a sawmill is in the records of the City of Augsburg, which states that three were erected on the banks of the Hanvey brook in that city in 1332, owned by the Hospital of the Holy Ghost. Again when the Infant Henry of Germany sent settlers to the new found island of Madeira, in the fifteenth century, he ordered them to erect sawmills, in order to convert some of the beautiful timbers found there into deals. The city of Breslau had a sawmill in 1427, which produced a yearly rent of three marks. In 1490 a sawmill was erected in the forest of Erfurt. Norway, that timber-covered country, owned its first sawmill in 1530, for we read in 1543 of a deal title being instituted by Christian III. All these early mills had only one blade in a reciprocating frame, and those having several blades in one frame were not used until 1575, when several of that kind were erected on the banks of the Danube. Holland, which at one time owned more sawmills than any other country, erected its first in 1596, at Saardam. In England sawmills had the same fate as the crane at Strasburg. They were violently opposed by the hand sawyers, and the first one erected, that near London, in 1663, had to be abandoned, and the one at Limehouse in 1767 so excited the rage of the populace that they pulled it down. Circular saws and driving sawmills by steam power were probably contemporary, and they were first erected just about a century ago. Sweden owned the largest sawmill in the world at that time one driven by a watermill 12ft. in breadth, which drove seventy-two frame saws. What would they say to our circular saws now?

BAND SAWS FOR LOG SAWING.

IT is not alone in this country, but abroad, that the band saw is engaging the attention of practical machinists. We illustrate on this page a special band saw for log sawing, manufactured by A. Ransome & Co., of Stanley Works, Chelsea, London, S.W., Eng., a concern that has a world-wide reputation for high-class sawmill and wood-working machinery. The merits of the particular machine in question have been brought to public notice very recently through the inspection made of one of these machines, that was about to leave the workshops for Tasmania, by a company of scientific and practical men connected with the trade.

The claim is made by the Messrs. Ransome & Co. that while their machines possess the best features of the machines made on this side of the ocean, for ensuring rapid work and facility of manipulation, they have been still more designed to meet the requirements of a market like Canada, where economy of timber and the production of smooth and true boards, with a moderate expenditure of power, are likewise indispensable.

The log sawing machines now in use may be classified under the three following heads: (1) vertical timber or log frames; (2) rack circular saw benches; (3) horizontal single blade saw frames; and it may be useful to place on record in a summarized form the advantages which the makers of these special band saw machines claim for them as the results of practical working.

As compared with a vertical timber frame—(1) The band saw, taking only one cut at a time, enables the sawyer to see what internal defects there may be in the log, or how the figure of the wood is developing, and so to convert it to the best advantage. (2) The band saw cuts very much faster than the vertical frame, the effective speed on the cutting edge of the saw being 7,000 feet a minute, as against about 200 feet a minute, which is the effective speed of the cutting edge of each saw in the vertical frame. (3) The time lost in changing saws on the band saw is about half an hour a day as against two to five hours a day lost in changing and shifting saws in the vertical frame.

As compared with the rack circular saw bench—(1) The band saw will do as much work as the rack circular saw bench with much less power. (2) The band saw saves about 70 per cent. of the wood which is wasted by being cut into sawdust with the large circular saws used in the rack bench. The band saw when cutting oak or elm logs wastes a full sixteenth at each cut. The rack bench doing the same work with a 62 inch saw wastes fully five-sixteenths at each cut. Thus, when sawing a log 24 inches square into boards one inch thick, the band saw would produce four more one inch boards than could be obtained from the same log if converted at the rack bench. (3) The band saw makes much smoother work than is obtainable from a circular saw, and the surface of the wood is not marked by the back of the saw.

As compared with the horizontal single blade saw frame—(1) The band saw will cut vastly more than any horizontal single blade saw frame in the market. (2) The band saw takes up considerably less space in the mill than the horizontal frame. Assuming a log twenty-four inches square by twenty feet long required to be cut into boards one inch thick, the band saw would saw the log completely up into twenty-two boards in the same time as it would take the horizontal frame to cut off the first two boards, the waste of wood being the same in each case.

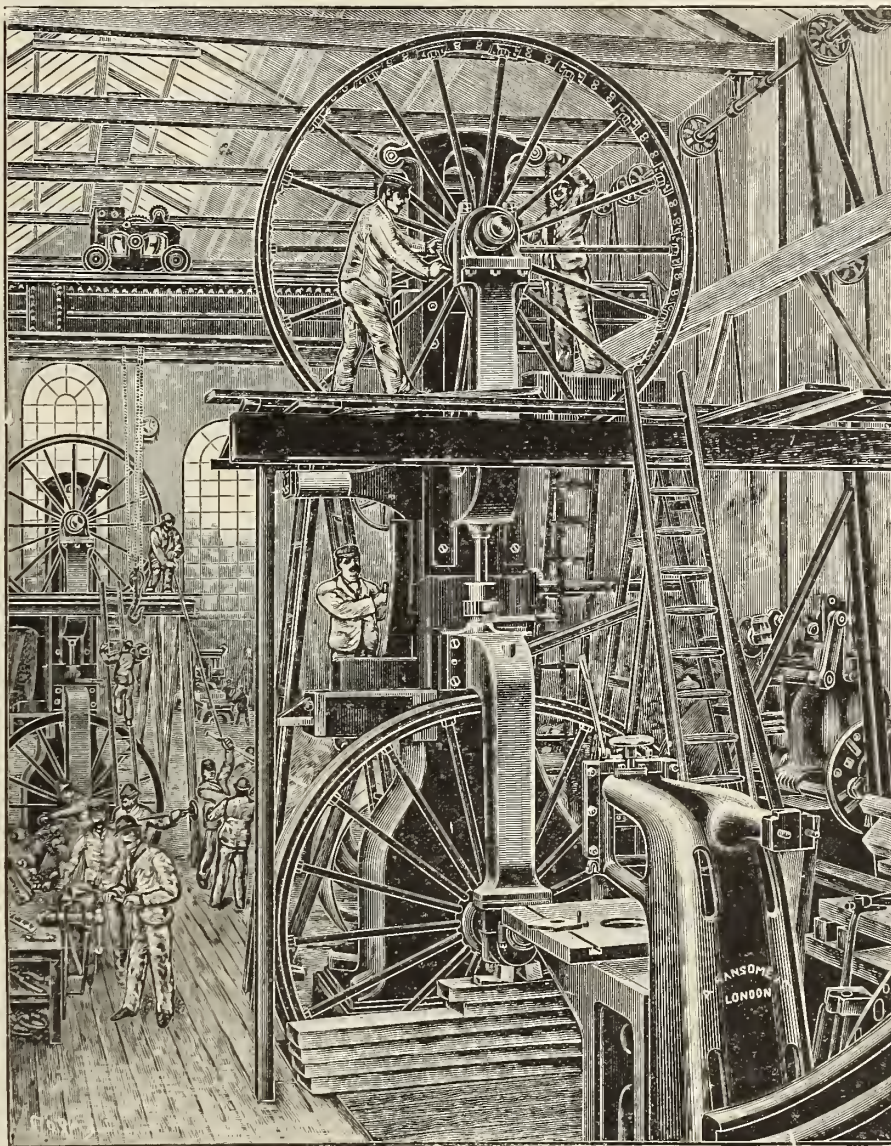
The particular machine shown in our illustration stands twenty feet high from its base plate to the summit

of the upper saw pulley. Its saw pulleys are eight feet in diameter. The blades used on it are eight inches in width, and their lengths are nearly sixty feet. When cutting they travel at the rate of 7,250 feet per minute. The weight of the machine complete with its traveling carriage is twenty tons.

This machine will saw right through a maximum depth of seventy-five inches, and will square and convert logs up to seven feet in diameter. The wooden section (dogged on the traveling carriage) showed a log of the maximum diameter which the machine can convert. It girths about twenty-two feet. A lot of blue gum wood of this average section, and fifty feet long, would weigh nearly fifty tons.

The rate of travel of the log, while the saw is cutting it, is variable up to fifty feet per minute. Where smaller logs are to be cut a still higher rate of speed is obtainable.

Messrs. Ransome & Co. will cheerfully furnish to readers of the CANADA LUMBERMAN any particulars



RANSOME'S SPECIAL BAND SAW FOR LOG SAWING.

of the band saw not included in the description here given. Woodworkers are likely to be interested in a number of machines constructed by this concern, and which are fully described and illustrated in catalogues and circulars. They also manufacture several machines and appliances for keeping large band saws in order, a patent automatic saw-sharpening machine being one of the most useful. This machine will sharpen in about 20 minutes what would take 4 hours to sharpen by hand.

SHAFTING.

BE sure that the shafting has a firm foundation, that the hangers are strong enough and not spaced too far apart, that they are lined up in good shape and well provided with means of lubrication. It may pay to reduce the size of shafting as you go further from the engine, for everything that helps to take friction from the engine load is beneficial; this requires careful calculating, however, and should not be done by guess work; it does not pay.

LINING UP AN ENGINE.

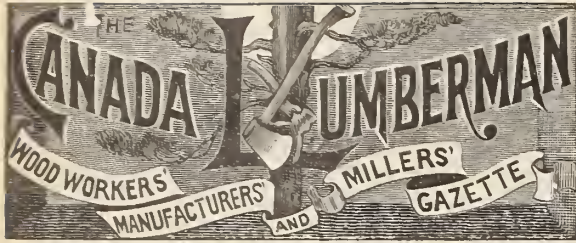
THE easiest way to determine whether an engine shaft is out of line depends considerably on the style of the engine, as with some engines it can be done quite easily and by simple means, while in others more inconvenience and greater difficulties are experienced in lining, says the Stationary Engineer. As a stationary engine is attached solidly to the foundation, it may be leveled and squared. With the frame of the engine level, a level placed across the guides should show these to be level also, then a plumb line dropped in the path of the crank, so that the line will come at the centre of the length of crank pin when the pin is above the shaft, and again when it is moved to the lower part of its travel, will show that the shaft is level. This point might also be determined by the use of a level, if enough of the shaft is exposed to accommodate the length of the level. To determine whether the shaft is in line on a horizontal plane, run a line parallel with the guides and determine whether the crank pin strikes the line at the same point when near both the outward and the inner points. If the leveling and establishing of the line are carefully done, the engine can be placed exactly in line, or a trial in this way will show how much it is out of line.

To thoroughly line up an engine and get all parts in their proper position, the piston, crosshead and connecting rod must be removed and a line drawn through the cylinder and projected beyond the outer point reached by the crank pin in its travel. This line must be centered accurately in the cylinder, measurements being made at both ends and the work carefully done, so that the line is at equal distance from the sides. A very trifling variation in the distance of the line from the sides at either end of the cylinder will be multiplied at the crank end. The line can be fastened in any convenient manner at the crank end, but at sufficient distance beyond, so as not to interfere with the movement of the crank. With the line in position, the guides should be carefully adjusted and the adjustment made accurate, as must all other adjustments and measurements when lining up the engine, or best results cannot be obtained.

A good and careful workman can show his qualities to good advantage in this kind of work, for here a variation of half a hundredth of an inch may be "good enough" to suit some, but the line should be drawn closer than this. With the cylinder and crosshead in line, the next thing is to line the shaft. This can be done by removing the shaft from the bearings, replacing the caps of the journal boxes and running a line through them, and then testing with a square and plumb line or level, adjust the bearings, so that the shaft will come in line. If the shaft bearings are badly worn we should prefer to line the shaft while in position. This can be done by blocking the shaft so it is level with the center line of the engine, and placing it also at an angle of 90°, as shown by the square, to the center line of the engine. The height of the shaft can be obtained by leveling from the center line to center of the shaft. If it is necessary to re-babbitt the bearings, the old babbitt should be removed from the boxes before the shaft is placed in position; then, when accurately in line, re-babbitt the boxes in the usual way.

THE MYSTERY.

A WRITER in an engineer's paper properly says that when old grate bars, scrap iron and similar weights are hung on the safety-valve lever (to prevent the valve working at the proper time), there is always a deep mystery connected with it—and that mystery is, what prevents an explosion?



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—BY—

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J. S. ROBERTSON, - - - EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

PROBLEMS OF THE TRADE.

THE recent failure of Gall, Anderson & Co., of this city, has served to make bare some of the weaknesses, that have honeycombed the lumber trade of the country for a number of years. A list of direct liabilities aggregating \$59,000 carries with it several obvious inferences; and when to this amount is added a bank indebtedness of \$93,000, to secure which the best assets of the estate had been pledged as collateral, perhaps it is not surprising that the dividend paid to the direct creditors does not exceed nineteen and a-half per cent. The assets of the estate have been sold to Mrs. Gall for \$11,552, she arranging the bank claim and paying the preferred claims and liens.

Some of the creditors are disposed to dispute the claim of the bank, but it is not known of any legal steps being taken in that direction. Banks usually look out for themselves, and make sure of the methods they adopt in dealing with a customer. The position of the ordinary creditor is not likely to be helped by the safeguards that the bank lays hold of to make itself solid, but in this respect it is only another case of "the devil take the hindmost."

Where the creditor is more frequently misled is in the false impression he obtains of the assets of the debtor. He steps into a customer's shop and he sees around him a vast quantity of valuable machinery and stock in various conditions of manufacture. He looks into the yard and there sees piled up thousands of feet of lumber. He comes to the off-hand conclusion that the assets are abundant and he cannot run much risk in making a sale of \$2,000 or \$3,000. As a matter of fact the whole concern may be hypothecated to the bank.

The liabilities of Gall, Anderson & Co. are represented in fifty-nine amounts. These are divided as follows: Eight under \$100; eleven from \$100 to \$300; seven, \$300 to \$500; twelve \$500 to \$1,000; eleven \$1,000 to \$2,000; four \$2,000 to \$3,000; four \$4,000 to \$5,000. Nearly all the leading lumber firms both of city and

country rank on the estate. The insolvent firm was of course in business on a considerable scale; but does not an analysis of the liabilities, in the light of the information that is now in creditors hands, indicate that credit was given with a prodigality that is outside the bounds of safe trading? We suppose the reason for this is not hard to seek. The size of the list of creditors is evidence that the opportunities for buying were not few and far between. They could only have served as a feeder to overtrading because of the easy road they furnished to secure credit. All were anxious for trade and, as a prominent lumberman remarked when discussing this case, which the LUMBERMAN has taken simply for the purpose of illustrating its remarks: "There is no lumberman but what has some lines of stock he is solicitous of selling; if he does not make the sale, competition is so keen, someone else will, and risks are taken against one's own better judgment."

In a word, too many men are engaged in the lumber business, and yet probably there has been no time in the history of the trade, in Toronto at least, when so little capital was seeking investment in this direction. Writing in the terms of an interview on the ELI page, it can hardly be said that Toronto has a wholesale trade worthy the name and commensurate with the importance and magnitude of the lumber industry. A large business is necessarily done, as the metropolis of the province it could not well be avoided; but it is a broken trade, divided among what wholesalers there are, an army of commission men and the mills. Anyone, if he has the money, can go direct to the mills and buy a carload of lumber assorted to meet his particular requirements.

This matter of ignoring the middleman and buying direct from the producer is to some extent an evolution of present-day business methods in almost every line of trade. Whether the effect on business in general is beneficial is open to serious question. It takes away from the manufacturer the advantage gained in having his accounts in comparatively few hands, of whose financial standing he can more readily be advised and know. In its stead he multiplies his accounts and the expense and labor of looking after them; and if his eggs are not all in one basket, the many in which he has placed them are too often made of exceedingly flimsy material, and in too many cases will not carry safely what is in them. Relatively the same general principles apply to the lumber trade, whilst special and particular conditions govern its operations.

One result of banishing the yard trade at any market centre, is that there is no standard system of inspection. It must always be so where each mill makes up its own particular lot of lumber to suit the particular customer. A need of inspection is a need that ought not to exist in the lumber trade, and one that is not conducive to the best interests of the trade in its entirety.

Difficulty in regulating prices is likely to be experienced where the yard system is abolished and lumber is distributed from the mills. This has been the experience for some time in the yellow pine market of many of the Southern States, where there is no coherence among the trade; everyone buys from the mill, and each mill has its own price. It is claimed, owing to the very wide producing field in the south, and the want of converging points for shipping stocks, that these conditions cannot be avoided. The disastrous effect of this line of operations is nevertheless fittingly illustrated in these southern conditions.

Where there is no market centre for the carrying of the various products of the various mills, and distribution goes out from no place in particular, the interests of millmen are prejudiced to the extent that they do not succeed in placing before the trade generally the full producing strength of the mills. The consumer is necessarily at a disadvantage when without a centre to which he may go for the different varieties of lumber that his business may require.

How far these conditions have been a factor in the present disorganization of trade in Toronto and serve to explain the cause of the losses sustained by lumbermen here and elsewhere, is a point on which there is perhaps a division of opinion. We are likely to return to the question in a future issue and we shall be glad to have the lumbermen themselves "speak out" through these columns, which are open to all.

FORESTRY IN QUEBEC.

A CORRESPONDENT, writing to a local journal, pleads for greater forestry preservation in the province of Quebec. He notes with approval the steps taken by the Ontario Government in appointing a commission to enquire into the methods and expense of maintaining a forestry reserve in this province and hopes that the new Commissioner in Quebec "will address himself to the problem of forest conservation." An attempt, it appears, was made under a former administration to inaugurate a system of forest reserves, but it never took any active shape. "There were under license," we are told, "in 1890 in the upper Ottawa agency, in round numbers, 21,000 square miles; lower Ottawa, 6,000; St. Maurice, 11,000; Saguenay and other eastern agencies, 19,000; in all, 57,000 square miles. About 3,000 square miles of the above have been abandoned, and there are 16,000 square miles upon which no operations have been made during the last five years." All told, there is 38,000 square miles of territory under license in the province of Quebec, upon which more or less lumbering is constantly carried on. Not more than one-half of this is pine-producing, and the remainder is largely spruce. "The comparative value of the Upper Ottawa, and the River Rouge in Argenteuil, both about equal in area, can be judged," says this correspondent, "by the fact that only 305 miles have been relinquished in the Upper Ottawa agency, while 3,674 miles have been relinquished in the agencies east of the river Rouge. If any active effort will be made towards preserving our white pine it should be directed towards the Upper and Lower Ottawa agencies of 27,000 square miles; but it is fair to assume that scarcely half of this area is pine-bearing, or what lumbermen call a pine country."

On this data it may not be possible to calculate very closely just the time when the forests of Quebec will be shorn of their present timber wealth, but each year undoubtedly brings that time nearer. It is a hopeful sign, under these circumstances, to find those interested in the lumber affairs of Quebec giving thought to the question of forestry preservation, and we may wish that the Provincial Government, which has need to conserve all the wealth possible to itself, will give practical effort to the suggestion to look with vigilance after this important source of wealth within its own borders. This province will watch with interest its movements.

Forestry to-day, as we have pointed out in these columns before, is a question of practical importance to every lumberman, besides having a distinct national bearing, and that Government which aims to move wisely along these lines, will be moving for the future gain of its people. It is pleasing to observe that the able paper by Hon. J. K. Ward, published in the May LUMBERMAN, is having no small influence in creating thought among our eastern lumbermen concerning this matter.

A LUMBER SUIT.

THE case of Simpson Rennie against Brown and the Utterson Lumber Co., which has been in litigation for a considerable time, has at last been settled by the Supreme Court, judgment being in favor of the plaintiff. The Utterson Lumber Co. is composed of J. W. Lang, ex-Ald. W. W. Park, James Todhunter, Wm. Mitchell, of Toronto, and Mr. Steele, of Brampton. The property of the company consists of a large sawmill on Mary's Lake, Muskoka. Years ago the owner was Robert Brown, to whom Simpson Rennie, a Scarborough farmer, loaned \$2,500, and took a mortgage on the mill and adjoining eighty acres as security. Long afterwards it was found that the mortgage had accidentally omitted mention of the mill, and as the land was worth little, Rennie would lose his money unless he could make the mortgage apply to the mill. The omission occurred by reason of the fact that the mill stands on posts in the lake and does not touch the land. Before the Toronto men bought the property Rennie says he gave them notice of his claim, but the mill was part of a bankrupt estate about 1888, and they bought it from the assignee, R. H. Gray, of Toronto. Rennie was successful in his action to hold the mill on the mortgage before Justice Falconbridge, again in the Court of Appeal and again in the Supreme Court. The costs, it is said, now amount to \$3,000, or more than the mortgage.



“As usual,” writes P. O. Byram, of Madawaska, N.B., “our bluenose lumbermen generally lose about one week of the best brook driving in spring by being so narrow and contracted in intellect, that to save one cent and lose one dollar, they fail to have their men on hand before the water rises, and pick the ice out of small streams, instead of waiting for the sun to thaw them out. Providence has smiled on them for the last few years, but by all appearance this year, to their sorrow, Providence will not indulge in too much procrastination, and will leave their lumber in the streams as a warning to take time by the forelock and be always ready. I hope I may be a false prophet, for lumbermen have made money this year, but I fear they will be like a good cow giving milk, kick it over in the drain.”

* * * *

“Rain,” said Mr. Andrew McCormick, the well-known lumberman, “is still wanted up the Upper Ottawa and until it comes heavy and soon the lumber industry suffers. On some of the streams in the upper country there is no more water now than there was last fall. All the spring water has run away, and as for the north water, it is of no use for the drive. On some of the drives the lumbermen are talking of discharging their men and leaving the logs where they are for the present year. The streams on the north side of the Ottawa river are much more in need of water than on the south side. I have been over thirty years in the lumber business, but in all that time I never saw such a want of water. What we want is a whole week’s rain to swell the rivers and unless that comes before the 10th of June things will get into a bad shape, for the timber and logs will be ‘hung up.’ The mills will not be seriously affected this year, for there are logs enough in the several booms on the Ottawa river to keep them going, but next spring and summer there might be a scarcity of logs to saw until they are drawn out of the small streams and swept down the Ottawa.”

* * * *

“So much uncertainty is associated with the sale of lumber in the city,” remarked Mr. John Donogh, of Donogh & Oliver, “that not only are we not pushing sales, but in some cases we prefer to be without business. Even with firms that are supposed to be in good standing, we are learning by sad experience that they have no more bottom frequently than the man who makes no pretense to be held up with abundance of capital. The curse of business all through is the loose credit system. Gall, Anderson & Co.’s failure is a case in point. Everyone supposed the firm to be in a good position. They were selling lots of lumber, but when the crash came we found they were doing trade as recklessly as many who had gone before them. One can easily understand the temptations to this kind of business. Obligations had to be met, and the man in a corner is ready to sell his lumber to almost anyone, if he can only get paper that the banks will accept. Protected themselves, the banks in too many cases accept this indifferent paper to relieve other paper of no better quality, and only when trouble comes does the trusty lumberman find out the real condition of his customer’s estate.” The general outlook of the lumber trade, Mr. Donogh considered, was encouraging.

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“I can hardly give you any reason why there is no Canadian lumberman’s association,” said Mr. James Tennant, “not but what there is need for an organization of the kind.” We all know why the old cow crossed the road. “Because she crossed the road.” And there’s no lumberman’s association because there’s no lumberman’s association. I have not been able to discover any better reason in my talks with lumbermen either this month, or at any other time in my call upon them. “Everyone just now,” continued Mr.

Tennant, “is talking about this failure and the other that is occurring in the lumber trade. I need only refer to the assignee’s list of liabilities of the most notable failure of the month, Gall, Anderson & Co., to show how widely are the ramifications of this business. Lumbermen, almost from Dan to Beer-Sheba, are to be found represented in that list of \$58,000. It is not to be supposed that a union of lumbermen, no matter how solidly they hold together, is going to banish insolvency. Like the poor, the unfortunate in business will always be with us. But a little more cohesion among members of the trade, a greater amount of confidence, one in the other, would enable us very often to give to one another pointers and suggestions of the conditions of those to whom we are selling stocks that if acted upon would keep our ledgers free of many a bad account.”

* * * *

“A union of local lumbermen,” said Mr. Eyer, of Reid & Eyer, Toronto, “is no doubt an end much to be desired. We are working at cross purposes to-day, where, if pulling together and meeting in council occasionally, we could arrive at conclusions that would be generally helpful to the whole trade. But so far as arriving at a uniform price basis, I do not see how that is possible the way trade is broken up in this city. What is needed to get trade into healthy channels is the yard system, where stocks of standard and wantable lumber will be kept. Then there could be an intelligent system of inspection and prices fixed on that inspection. To accomplish this end it is necessary that men with capital embark in the lumber business. They don’t do so now and the result is we are almost without a wholesale trade in this city. We have no lack of lumbermen. All a man has to do to-day to get into the lumber business in Toronto is to secure desk room in an office, print some letter heads and envelopes, and announce himself a lumber merchant. He can solicit orders and he can secure from the mills whatever lumber he wants in mixed carloads. When lumber is sold in this way, it is a case of every man for himself, and a basis of inspection is out of the question. I am not going to say that the mills should refuse to sell lumber in this manner. They can hardly do otherwise in the present shape of trade. I do not know of a single mill that pretends to sell its supplies to one concern only; but when trade gets round to that point where the millman will sell only to the wholesaler, leaving him to do the jobbing, the lumber business in this city and the country generally will be in much better form. ‘All things come to those who wait,’ and we will get where we ought to be—some day. ‘The sweet bye and bye’ will yet be the lumberman’s goal.”

* * * *

Mr. Edward Jack tells in the N. Y. Lumber Trade Journal of the manufacture of lasts in the province of New Brunswick. On the banks of the St. John river and its tributaries large bodies of beech and maple of excellent quality are found and are utilized in the manufacture of last blocks. The chief operator is Mr. Ora Gilpatrick, of Danforth, Maine. His operations are carried on upon the Keswick river, about 30 miles from the city of Fredericton. The valley of this river is traversed by the Canadian Pacific railway (New Brunswick division), which gives a ready means of transportation to the cities of the United States. Mr. Gilpatrick employs about 75 hands. His camps are distant on an average from the Canadian Pacific railway about five miles. The plan of operations is as follows: After the camps are built and clears in the woods and roads made to the maple ridges, the trees on which have been previously examined, the choppers proceed to cut down such trees as they judge suitable for their purposes. No logs less than 10 inches at the top end are made use of. After the tree has been cut down the log is hauled to a large vacant space in the forest which had been cleared in the autumn, and which is known as the “yard.” Here they are piled in rows or tiers. At each yard there is a portable engine of about 12-horsepower, which drives a drag saw for the purpose of cutting the logs into lengths of from 10 to 15 inches. As these lengths are sawn they are removed by the marker, who has a pattern for the shape of the block. This he marks on the end of the section, which is then passed on to the “chippers,” whose duty it is to split the section and roughly chip the

blocks according to the pattern above referred to. When this is done they pass into the hands of the “sorter,” who places each block into its proper division, that is to say, as misses’, women’s, men’s and boys’ lasts. After having been thus assorted they are hauled on sleds to the drying sheds on the line of the railway. These are nearly open sheds, roofed over so as to keep off any rain which may fall. In the drying shed each kind of block is placed by itself. Blocks for rubber work are forwarded “green.” They are kiln-dried before use. Those to be made use of for the manufacture of leather boots or shoes are allowed to remain in the drying sheds until the month of September. Eastern maple is much better for last purposes than that growing in the western states, the wood of which is of a much softer character.

* * * *

The lumber firm of J. & T. Charlton are well known both in our own country and the United States. They are Canadians, and the senior member, Mr. John Charlton, has for years been a representative for Norfolk in the House of Commons, and one of the ablest members of the Liberal party. The firm are large operators at Little Current, and interested in timber limits in the northern section of the province. They also carry on a business at Tonawanda, N.Y., as sawmill owners and lumbermen. A week ago I had a chat with Mr. T. Charlton, who is the resident member of the firm at Tonawanda. “Southern pine,” said Mr. Charlton, “is coming into competition with Canadian pine on the American side of the border. A considerable quantity is finding its way to New York. In some respects Southern pine is better than Canadian pine. I think the advantage is with the former for flooring and outside sheeting. The pick qualities are better than anything we can get in Canada; some of it is as hard as oak. Southern pine affects Norway. We have not bought any Norway for years. I am inclined to think that it was the intention of the author of the McKinley Bill to have included Norway under the one dollar duty; but not being a practical lumberman he was not aware that Norway and white pine were two different woods. The South is rich in timber and prices will keep down for years.” Replying to an interruption from the interviewer, Mr. Charlton said “that any additional cost in freight, because of distance, was offset by the price. The genuine lumberman in the South has a rather hard road to travel; with the poor workmen, who have only their earnings to depend upon, the position is aggravatingly tough. It is a common matter for a man to get hold of a sawmill for a season. He engages his workmen and starts cutting, paying them just as little on account of wages as it is possible, putting them off with one excuse and another until he gets near the end of the season. In the meantime he has been shipping out his lumber. The men are informed that this is in the hands of New York dealers, who have not yet paid for it, and he presumably starts off to look after his account. In the words of a popular ballad: “But he never came back again;” and the men are done out of their season’s wages. Next year a new proprietor comes to occupy the mill, and, as a new man, he is taken to be an honest man, the workmen learning when too late to help themselves, that they have once more been deceived. You can understand how difficult it is for the honest, reputable lumberman of the South to meet the class of competition that is part and parcel of these methods. The unprincipled adventurer, paying little or almost nothing for his labor, cuts under the other every time, so that to-day legitimate lumbering is not profitable in the South.” Touching the tariff question Mr. Charlton said he would certainly like to see free lumber, but he doubted very much if it was coming. “Just now there is more election talk than real business going. I certainly think that the considerable influx of Canadian lumber into the United States during the past year has affected the price of American lumber. It has been an additional element of competition.”

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A strong delegation of lumbermen waited on the Quebec Government and urged a modification of the practice imposed by the late Government of granting special permits to third parties in territory already licensed. The Government promises the matter serious attention.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

YOUR readers will be interested in various figures concerning American purchases of Canadian timber, that are passing current in different parts of the State. I give them as they come to me from a variety of sources without entering into a discussion of their import, if any special import or significance is to be attached to them, nor do I stand sponsor for the entire exactness of every statement made.

The Bay City correspondent of a Chicago lumber journal, controverting the oft-repeated story that Michigan mills would soon come to a standstill for want of logs to saw, has told us quite recently that "within the past year arrangements have been perfected whereby a vast quantity of timber, not tributary to the Saginaw River, is to be brought here to be manufactured," and that this includes deals that will "transfer 3,000,000,000 feet of Canadian timber to this river to be manufactured, a supply equal to a cut of 500,000,000 feet annually for six years." McKeon & Glover, a Bay City firm, and who rank among the largest loggers in the country, say that they banked 33,000,000 feet of logs in Georgian Bay waters last winter, and 25,000,000 feet of these will come to Saginaw. Their estimate is that 130,000,000 feet of Canada logs will come to the Saginaw River this season. Isaac Beringer, of Sibley & Beringer, another Michigan concern, says that his firm owns \$200,000 worth of logs in the Georgian Bay region. Other interests are represented by Wm. Peters, who owns a mill at Bay City, and is believed last year to have purchased over 300,000,000 feet of Canada pine; C. K. Eddy & Son own 400,000,000 feet there; the Spanish River Lumber Co., of which E. T. Carrington, of Bay City, is president, owns over 200,000,000 feet; J. W. Howry & Son have been operating in your territories for some years; the Saginaw Lumber & Salt Co. and the Emery Lumber Co. are extensive operators; the Messrs. Bliss, McClure and others individually and collectively are said to control not less than 1,500,000,000 feet of Canadian timber. These cases are outside of the two important transfers of the Dodge estate and Pattee & Perley to United States capitalists and mentioned in the LUMBERMAN last month, and which represented investments, respectively, of \$750,000 and \$800,000.

PIECE STUFF.

F. M. White, of Saginaw, who for some time represented D. L. White & Co., of Albany, N.Y., is going into the export of hardwood logs and timber in New Orleans.

Merrill & Co. have rebuilt the two dams that recently went out on the Molasses, hanging up 7,000,000 feet of logs, but even with the aid of the dams the prospects for getting the logs down is unfavorable. Fully 100,000,000 feet of logs know of the low condition of the water in this section. Unless aid comes the expense of handling them will be increased.

The Butler and Peter Salt and Lumber Co.'s mills at Butterville were burned on the 10th inst. The loss is estimated at \$250,000 with about half insurance. Four hundred men are thrown out of employment.

SAGINAW, Mich., May 25, 1892.

PICA.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

ON the morning of Monday, 9th inst., the news was carried throughout our streets that there was a strike at the Chaudiere, about fifty employees of Buell, Orr, Hurdman & Co. having refused to go to work. On the Saturday previous they had been asked to commence work at six o'clock instead of seven o'clock. This the men refused to do unless they received an increase of wages. When seven o'clock Monday morning arrived the men took off their coats ready to begin work, but were notified by the foreman that in working ten hours a day their wages would be reduced from \$7.50 a week to \$6.50. Happily the trouble was speedily gotten over. The millowners held a meeting and decided to pay one dollar a week more than they had been paying last year for eleven hours a day. This was satisfactory to the men; as one of them said: "We don't want a strike. We want work. Eleven hours is a pretty long day but we don't mind that so much as long as we get the increase of pay. We all owe money and can't afford to be idle. There are hundreds of men in the mills who would positively refuse to quit work if ordered." The mills are now pretty well started on the season's work and, with the labor difficulty at an end, a prosperous trade is expected.

Recent rains have removed, in part at least, the uneasiness among mill-owners consequent upon the low condition of the water in the tributaries to the Ottawa River. About 45,000 logs for the Hawkesbury Lumber Co. have already been passed down this year. It is stated some 630,000 logs were cut up the Gatineau this winter by Messrs. Gilmour, MacLaren, Rathbun, Edwards and Boyle & McCracken. The MacLaren firm, it is said, have made about 100,000 feet of square timber. Boyle & MacCracken are bringing down 160,000 feet of dimen-

sion timber for the Lachine market. E. B. Eddy will, it is stated, receive 1,000 cords of pulpwood from the Gatineau district.

INDIFFERENT LENGTHS.

Ex-Ald. Thackeray has the sympathy of his fellow-citizens in the loss sustained by the burning of his planing and sash mill on the 10th inst. The fire broke out in the engine room, and immediately a line of hose belonging to the mill was laid, but when the water was turned on burst at a defective coupling. The fire brigade responded quickly to the alarm, and soon streams were playing on the flames, but the mill was doomed, and in less than an hour \$30,000 worth of damage was done. The machinery destroyed was valued at \$31,000, whilst manufactured lumber amounting to \$25,000 was destroyed. There is only \$10,000 insurance, of which \$5,000 is in the Aetna. The mill was destroyed about three years ago, and handsomely rebuilt. In this connection Mr. E. B. Eddy has done a generous act, as is ever his wont, having notified the Thackeray firm that owing to the disastrous conflagration which swept away their handsome mills, that he placed his mill and machinery at their disposal. At present Mr. Thackeray has a very heavy list of orders and contracts on hand, the non-fulfilment of which would prove a serious disappointment and inconvenience to their customers, the more so at this busy season of the year. Mr. Eddy says he will either finish their orders himself for them or allow them the use of his machinery to do so themselves.

McLaren & Co.'s culler, Wm. Stirling, has returned from up the Gatineau and states that some 300,000 logs are now on their way down for that firm.

It was hoped that the persons who proposed to form a company to work the Casselman lumber mills would have proven successful in their plans, but it seems not, and the liquidator will proceed to dispose of the estate.

Buell, Orr, Hurdman & Co. are having a new office building erected which will give increased office accommodation and additional platform room for tracts and lumber.

Mr. Alex. Lumsden, of New Edinboro', is bringing down a raft of 175 cribs of square timber from the Kippewa and Temiscamingue tributaries on the upper Ottawa.

Dry mill wood is becoming very scarce. The dealers' stocks are about run out.

Saturday afternoon about four o'clock a boy named Andrew Kelly, of the Chaudiere, met with a severe accident by falling from the top of a wood cart which was heavily loaded with blocks. His left shoulder was dislocated and a cut two inches long was inflicted on his head, it having come in contact with the hub of the wheel.

OTTAWA, Ont., May 23, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

QUITE a history belongs to the engines used to drive the machines of the large sawmill of the Moodyville Sawmill Co., at Burrard Inlet. They were originally built by Humphrey and Tennant, an English firm of engineers of world-wide reputation, many of whose engines are to be found in the older vessels of the British navy to-day. The particular engines in question were first placed in the man-of-war Sparrowhawk, which was used as a despatch boat during the Crimean War, and did good service against the Russians in the Black Sea. The vessel was finally condemned in Victoria in 1872, on account of the boilers giving out, and was sold for what she would fetch. She was bought by Messrs. Moody, Deitz and Nelson (the former the founder of Moodyville, and the latter the present esteemed Lieutenant-Governor), who were at that time projecting a larger mill than the small one that they had then, and which was run by water-power with an auxiliary engine. The cylinders are forty-two by thirty-six inches, and the engines were changed from compound vertical to horizontal high pressure. They make sixty revolutions, carrying forty pounds of steam, and develop about 260 horse-power, sufficient to run the mill with the aid of a water-wheel with thirty-two feet head, which is so arranged that the lath mill and planers can be run without getting up steam, should the mill be shut down.

During the past six months important improvements have been made in the Moodyville mill, conducted under the superintendance of Mr. E. Cadwalader, the present millwright, who has held that position for twenty years. Ten years ago this mill was averaging only 40,000 feet per day; to-day it averages 100,000 feet every ten hours. The mill is owned and operated by the Moodyville Lands and Sawmill Co., Ltd., of which Mr. Johann Wulffsohn, of Messrs. Wulffsohn and Bewicke, Ltd., is managing director, with headquarters at Vancouver. Mr. J. H. Ramsdell is general manager; Mr. A. V. C. King, accountant; L. Card, foreman; J. S. McWhinnie, log foreman; G. Brown, storekeeper; E. Cadwalader, millwright, and J. S. Randall, machinist.

COAST CHIPS.

A small sawmill is being built by Mr. Yates on the Slocan River, East Kootenay.

G. O. Buchanan, of Revelstoke, has been granted timber leases to the extent of 1,760 acres at the head of Slocan Lake, estimated to contain about 9,000,000 feet of lumber. In all probability a sawmill with a capacity of 20,000 feet a day will be erected there in the immediate future.

A logging camp has been started on Burnaby Lake by Messrs. Smith, MacPherson and Rowling. The little steamer Butte has been placed on the lake to tow the logs to the entrance of the Brunette River, down which they will be floated to the Fraser. Two dams will be built at the head of the Brunette to assist in floating out the logs.

Galbraith and Sons, well-known local lumbermen, have lately added a shingle mill to their sash and door factory, on Tenth Street, the capacity of which is 35,000 shingles per day. Several large orders for shingles have already been booked.

The logging trade of the province is in a large measure controlled by J. McKinnon and Norman McDougall, who met a few days ago in solemn conclave and decided to raise the price of logs. Their contention is that there is nothing to be made at the business at present prices. McKinnon's camp is located at the head of Port Neville, and McDougall's at Seymour Narrows. This combine will operate somewhat against small loggers and mills which depend on loggers for their supplies.

NEW WESTMINSTER, May 21, 1892.

R.

CENTRAL AMERICA LETTER.

[Special correspondence CANADA LUMBERMAN.]

YOUR readers, whom I would judge are cosmopolitan in their tastes, doubtless have curiosity, if not interest, in learning something of lumbering in other parts of the world—possibly in Central America. I write of some of the peculiarities of lumbering here.

First comes the mill; it is a good one, made by the Waterous Engine Works Co., of Brantford, but ordered specially for the kind of work it has to do, and it does it to perfection. There is the big saw-edger, cut-off saw, tie-spotter and borer, and re-saw on the deck. The mill is 125 feet long by 25 wide, with lean-to for boiler, engine and filing room. The timber is so heavy that we have to use an overhead log turner on nearly every log, and rollers to end of mill for delivering lumber and timber. The timber is of a great many different kinds, some extremely hard, such as nispero, chanco chere and quisera-colpachi; others are softer, such as era cedar (Spanish) and mahogany. We have some oak, but very much harder than Canadian oak. Occasionally we cut an incense tree and scent up the whole neighbourhood while doing it. Another tree called soap bark makes banks of foam for miles down the small stream that carries away the surplus saw dust. I have seen the foam three feet deep and completely covering the stream at a little cataract on the route. Nispero logs are very hard on saws and require a newly-sharpened saw for every log. Sometimes they are very large and then we have to sharpen twice for one log. There seems to be a

SANDY SUBSTANCE IN THE TREE

that just wears the edges of the teeth away in no time. It takes forty yoke of oxen to keep the mill going beside what is brought in by train. We brought out cross-cut saws and chains for logging, but the natives will not use them. They cut every log with an axe that has a straight handle six feet long, and looks something like a grubbing hoe. The logs are all pointed and a hole bored through the point and a pole made fast to it with raw-hide ropes and the other end of the pole tied to the yoke with the same material. The yokes are fastened to the oxen's horns with long leather straps passed around the horns and crossed over the forehead, so the oxen draw by the horns and forehead altogether. I have seen eight yoke of oxen drawing one log, and it sounds just a little odd to hear the drivers coming up to the mill in a long string with their, "Ak ye carajo. Diabolo sin verguensa Demonio conbenow," which translated would be, "Go on, confound you; devils without shame and condemned." Demons though they be, they get in a lot of logs, and not overly expensive. Cutting and hauling (less than a mile at present) costs eight dollars per 1,000; the lumber averages \$60 per 1,000 at the mill when cut; so you see there is a little margin for profit. Lumber does not sell by the 1,000 but by the piece, and I give you a list: boards 12 inches wide and 11 feet 4 inches long, 70 cents each; 2 x 4 inches, 55 cents; 3 x 4 inches, 75 cents; 2 x 3 inches, 45 cents; 4 x 4 inches, 95 cents; cedar board 8 cents per inch in width, 1 1/4 x 6 inches, 65 cents; 1 x 6 inches, 50 cents; 2 x 2 inches, 30 cents; 1 x 3 inches, 30 cents; 1 1/4 x 3 inches, 35 cents. This is all 11 feet 4 inches long, extra length double extra price. The price for sawing is from 25 cents to 40 cents per cut. One day we cut a log for a man that cost him \$11.25. This just took ten minutes so you see a

GOOD MILL PAYS

in this country even by the M. or cut either. The mill belongs

to Minor C. Keith, a very large railroad contractor. He also has thousands of acres of bananas growing, large sugar and coffee plantations and thousands of acres of portrero where he fattens cattle for the markets of this country. The mill is situated on the Naranjo (orange) estate which has 12,000 acres in it and is used for coffee, sugar and portrero. Mr. Keith is now rebuilding his sugar mill on this estate and will soon be able to turn out about ten tons of sugar daily. There are tramways to take the cane to the mill, and one will soon be finished to take the slabs from the sawmill to the sugar mill for fuel.

We have the most beautiful climate here imaginable, never too hot to work and certainly never cold. Most all workmen go bare-footed, and lots of children can be seen naked till they reach the age of twelve and fourteen. Monkeys are plentiful and make many a dainty dinner for the mill hands—Jamaica negroes. A family of baboons live in the trees just above the mill and their howls will not let any person oversleep themselves. Some of the hands have some queer pets. One has a tame watusa, others have monkeys, and one has a snake skin hanging up in his room that was too long to stretch on an 11ft. 4in. board. Workingmen's wages are very low, about \$1.35 and \$1.50 Costa Rican money, which at present is worth about one-half of American gold. The manager and sawyer get good salaries, and some foremen, but nothing to tempt one to leave Canada and put up with the living of this country. Mr. Keith is adding a planing, sash and door mill to his sawmill. The commonest kind of a door is worth \$25 here. He is thinking also of a wheel factory; a pair of cart wheels sell for \$120. There is a steam wood-splitter connected with the mill, and a planer, each of which has a separate engine to drive it.

JAMES INKSETTER.

LA GLORIA, C.A., May 2, 1892.

FIRES AND CASUALTIES. FIRES.

—Bentz and Pilatzkis sawmill at Eganville, Ont., burned to the ground.

—Cozens & Bell, sawmill, etc., Sault Ste. Marie, Ont., burned out.

—James Thompson's mill at Orkney, Ont., has suffered from fire. Loss, \$5,000.

—The furniture factory of Dowling and Leighton was destroyed by fire on the 15th ult.

—The pulp department of the Georgetown mills, Ont., was partially destroyed by fire on the 15th ult.

CASUALTIES.

—A man named Woods had his thumb cut off by the saw while edging in a mill at Oro Station, Ont.

—Alexander Milsap was instantly killed by the breaking of a balance wheel in a mill near Sundridge, Ont.

—E. Black, formerly of Belleville, Ont., but now of Williamsville, lost a finger by a planer in a sawmill.

—Joseph Ledue, an Ottawa riverman, was dangerously hurt while chopping wood in a Lower Town hotel yard.

—Two boys lost their lives at Sutton, Ont., while playing on a raft. They fell off together and were drowned.

—Herbert McMillan, while measuring logs at Holmes Landing, N.B., was carried off by the logs and had his arm broken.

—Edward Farron, of Elora, Ont., had his right leg broken while drawing logs from the river flats at his farm in Pilkington.

—Four boilers of the Midland Salt and Lumber Co.'s plant at Midland, Mich., exploded, killing four men and seriously injuring four more.

—Robert Charters is thought to have been fatally injured by a blow from a swinging hand-spike; he was employed in John Irvine's mill, Dundalk, Ont.

—A sad accident happened on John Bell's drive on the Coldwater River, Ont., where Mr. Young, of Eady, was so badly injured that his recovery is doubtful.

—Benjamin Brooks, employed in Brooks' sawmill, Golden Valley, Ont., was severely scalded on hands and legs, by the explosion of the boiler. The mill was burned to the ground.

—William Baylis, a workman in the lumber camps near Vancouver, B.C., committed suicide on the 10th ult. by shooting himself through the head. He is supposed to have come from near Toronto.

—Conrad Ruhl, a machinist, was instantly killed in the sawmill at Elmwood, Bruce Co., by the breaking of the large driving belt. Deceased was about fifty years of age, and leaves a wife and six children.

—Mr. Hopkins VanValkenburg met with a very painful accident in the sawmill at Norwick, Ont., probably losing the sight of at least one of his eyes, if not injuring both. A large wheel on one of the wheels broke and struck him in the face with great force, felling him to the ground. He will be confined to his home for some time to come.

THE NEWS.

ONTARIO.

- A new sawmill is being erected at Elora.
- There is talk of a pulp factory at Bracebridge.
- Martin Bros., lumber, St. Marys, have dissolved.
- S. D. Grout, lumber, Vankleek Hill, has assigned.
- Thos. Reaburn is operating a portable sawmill at Lisle.
- Low water is causing anxiety to lumbermen at many different points.
- Smith Bros. & Gibson, planing mill and sash and door factory, Brussels, have assigned.
- Business is reported lively at Novar, sawmills are going and houses are in course of erection.
- The Whaley Lumber Co.'s mills, at Huntsville, are cutting large quantities of lumber and shingles.
- Mickle, Dymont & Son's mill, at Severn Bridge, has been put in first-class shape for the season's work.
- The new shingle mill of the Georgian Bay Lumber Co., being built at Waubaushene, is nearly completed.
- Part of Gilmour's big mill, Trenton, has commenced work, and it is thought the whole mill will be in operation in a few weeks.

—J. D. Lebel, lumber, London and Sarnia, Ont., is offering fifty cents on the dollar, and shows liabilities of \$17,000, and assets of \$13,000.

—The big lumber mills at Rat Portage and Norman are in full swing, and the expectation is that they will run night and day throughout the season.

—A heavy downpour of rain in Luther township is welcomed by the local lumbermen, who have a considerable quantity of logs to get down the streams.

—The Lindsay Post says: M. M. Boyd & Co., of Bobcaygeon, have about 100,000 logs, cut during the past three seasons, awaiting a chance to float them down.

—H. J. McMillan, of Meaford, has shipped 25 car loads of square timber to England. The timber was principally elm and ash, measuring from 20 to 60 feet in length.

—The local press proclaim the new tug now being built at Collingwood for the Emery Lumber Co., to be "a regular clinker, and will be by far the best on the Georgian Bay."

—Lumbering is dull in Washago, only one mill running. Not less than thirty men have signified their intention to go to the Northwest and grow up with the country.

—Kendall Kennedy, of Hobart, whose mill was recently burned down, is rebuilding it, and will soon have it in running order. Mr. Kennedy has a large stock of lumber and shingles to cut.

—W. H. Petrie, a constant advertiser in the LUMBERMAN, has received a large order from the Buffalo Drop Forge Co., Buffalo, N.Y., for iron tools. He anticipates further business from the same source.

—While loading timber on the train at Holland Centre, Robert Stewart met with a sad accident, which will disable him for some time, in getting his leg jammed between two skids, which broke it in two places.

—Mr. J. F. Beck, Secretary for the C. Beck Manufacturing Co., says that both of their big sawmills at Penetang will be kept busy all the summer and that one of them will have to run night and day, to get their stock out.

—It is now a good many years since timber or logs were last taken down Hurd's Creek from Lake Clear. This year the Messrs. Moran, of Renfrew, have a drive of logs to come down it. A good many of the old rivermen doubt if they will get out.

—J. Dovey & Son intend towing their logs from Fenelon Falls to the mill at Lindsay by means of a hermaphrodite craft. It is a large shanty punt fitted with paddle wheels and small engine and boiler, and is christened "The Flying Dutchman."

—While a teamster, of Tilbury East, was driving home from Tilbury Centre late one night recently, he was held up by a gang of three men. The three men took from the teamster's wagon a large quantity of goods. It was supposed that they were men employed in McMackon's mill, Romney, as three men suddenly left there early next morning.

—A raft of square timber, the first of the season, reached Pembroke in tow of the Alex. Fraser, a fortnight ago, and, after being fitted out with cabins and provisions, left for Quebec. The raft was got out by Messrs. Barnett & Mackie, and was sold to Dobell & Co., of Quebec, who supply the British Government with timber. It contains 2,700 pieces in 108 cribs, and is said by competent judges to be one of the finest rafts of square timber ever on the Ottawa.

—W. P. Warner has sued the Minnesota & Ontario Lumber Company, of Norman, in the St. Paul courts to recover a bal-

ance of \$2,600 for legal services rendered to him, H. L. Stevens, Harris Richardson, C. H. Fairbairn and C. C. Lawrence. The accounts of the other attorney were assigned to the plaintiff. The services sued for were rendered to W. J. Macaulay and Dennis Ryan, who formed the defendants corporation and assumed the liabilities of the firm of Macaulay & Ryan.

—Mossom Martin Boyd, the well-known lumberman of Bobcaygeon, Ont., for the provisional directors, has made application to Parliament to revive and amend the act to incorporate the Lindsay, Bobcaygeon and Pontypool Railway Co. and to extend the time for commencing and completing the same, also to reduce the capital stock; and also for power to extend the proposed line of railway from the village of Bobcaygeon through the Township of Galway to a junction with the Irondale, Bancroft and Ottawa Railway at or near Irondale, in the provisional county of Haliburton, and for other purposes.

QUEBEC.

—Eli Audet, contractor and lumber, Ascot Tp, has assigned.

F. McCaffrey, sawmill and lumber, Nicolet, has assigned. Liabilities are given at \$50,000.

—Elic Lachance, sawmill, general store, etc., St. Proxede: curator advertises stock, etc., for sale by tender.

—The timber that was taken out near Ramsay by Booth and Hale during the past winter, is now being shipped by C.P.R. to Papineauville.

—S. Dalpe, for twenty-five years a manufacturer of carpenters' planes at Boxtou Pond, wants to turn his business into a joint stock company.

NEW BRUNSWICK AND NOVA SCOTIA.

—This season's lumber cut of the Upper St. John River and its tributaries in New Brunswick is expected to reach over 125,000,000 feet. This estimate does not, however, include a large amount of lumber cut on the Meduxnakik.

—The mill property formerly owned by R. E. Fitz Randolph, of Dalhousie, N.S., and by him sold to the firm of Spinney & Mack, of this place, and recently sold by the assignee, has been purchased by Messrs. Charles, John and Edward Piggott, the latter being a son of Mr. John Piggott. They have also bought the lands, some 1,400 acres, which belonged to the property, and will carry on a general milling business, commencing this spring. The machinery connected with the mill, which is valued at some \$4,000, is nearly new and in excellent condition, while over 1,500 logs are now in the pond, and every effort will be made to increase the number while the weather permits. The present owners are energetic men.

BRITISH COLUMBIA.

—Alfred B. Dixon, sawmill owner, Mission City, has assigned to Hugh Youdall, of New Westminster.

—George O. Buchanan, sawmill, on Kootenay Lake, will remove and rebuild at Kaslo City during the summer.

—The Brunette Sawmill Co. have shipped per barque Ursus Minor, three-quarters of a million feet of lumber for Sidney, N.S.W.

—The Michigan Lumber Co., of Vancouver City, have decided to discharge the Chinese now employed by them, to the number of thirty-five; they having concluded that white labor is preferable and cheaper in the long run.

—The Kendall band saw, manufactured by the British Columbia Iron Works, for Messrs. George Cassady & Co., of False Creek, is giving great satisfaction. The saw will cut 10,000 feet of inch lumber per hour. This machine enjoys the reputation of being the smallest and most powerful of its kind in the world to-day. The saw-carrying wheel is only five feet in diameter, the whole machine being driven by an eight inch belt. There is also a great saving in lumber on account of the cut made by the band saw.

MANITOBA AND THE NORTHWEST.

—F. J. Defehr has started in the lumber trade at Rosenfeld.

—Murray and McDiarmid, builders, Winnipeg, have dissolved partnership.

—H. B. Mitchell, of Millwood, has taken out over 2,000,000 feet of logs this winter.

—John Law, of Neepawa, Man., has disposed of his lumber business to Thomas Harrison, Sr.

—Mr. Inglis, of Deseronto, is to be manager of the new Winnipeg branch of the Rathbun Lumber Co.

—Mr. Thomas McNea, from Markdale, Ont., has entered into partnership with Mr. J. Hanbury, of Brandon, owner of the Brandon Planing mills. A large business is done.

—Mann and Durham, of Brandon, have assigned. They started business about four years ago with a capital of \$1,500. To-day the Keewatin Lumber Co. has a judgment against them of \$10,000, and A. B. Law & Co., private bankers, one for \$22,000.

TRADE REVIEW.

Office of CANADA LUMBERMAN, } May 31, 1892. }

THE GENERAL SURVEY.

SO far as the lumber trade of Toronto is concerned, it is dull, unsettled and unsatisfactory. Recent failures, prominent among which is that of Gall, Anderson & Co., have accentuated these conditions and it is hardly likely that the end is even yet.

A month ago millmen were seriously alarmed because of the continued dry weather. It looked as if the large majority of logs cut during the past winter were to be hung up for a more convenient season.

Stocks of lumber on hand are exceedingly light. Better grades, in fact, are not to be had for the brightest gold dollars.

Country trade in Ontario is slow; a hand-to-mouth trade only is being done.

Recent communications from Winnipeg state that the immigration going into Manitoba and the Northwest this spring is the largest since 1882, the boom year.

Our correspondent at the Coast writes us that all the mills in or adjacent to New Westminster and Vancouver and on Vancouver Island have renewed their promises to maintain prices as per price list.

BRITISH COLUMBIA.

More particularly in sections where excessive rains and floods have been prevalent during the month the lumber trade has experienced a depressing effect.

FOREIGN.

South American trade is looking up a little, hut only a little. British Columbia is sending out some shipments to this point.

TORONTO, ONT.

TORONTO, May 31, 1892.

Table with columns for CAR OR CARGO LOTS, TORONTO, May 31, 1892, and various lumber items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table with columns for F. M., 1x1-2 in. flooring, dres'd, 1x1-4 in. flooring, undressed, etc.

MONTREAL, QUE.

MONTREAL, May 31, 1892.

Table with columns for Pine, 1st qual., per M \$35 00, Oak, Walnut, Cherry, etc.

OTTAWA, ONT.

OTTAWA, May 31, 1892.

Table with columns for Pine, 1st qual., per M \$35 00, Pine, 4th qual., deals, etc.

BOSTON, MASS.

EASTERN PINE—CARGO OR CAR LOAD.

Table with columns for Nos. 1 and 2, 3, 4, 5, Ship's bds and coarse, etc.

WESTERN PINE—BY CAR LOAD.

Table with columns for Uppers, 1 in., 1 1/2 and 2 in., 3 and 4 in., etc.

SPRUCE—BY CARGO.

Table with columns for Scantling and plank, random cargoes, Yard orders, etc.

LATH.

Table with columns for Spruce by cargo, 2 10@2 20

SHINGLES.

Table with columns for Spruce, Pine, 18 in., extra, Pine, No. 1, Cedar, sawed, extra, etc.

OSWEGO, N. Y.

WHITE PINE.

Table with columns for Three uppers, 1 1/4, 1 1/2 and 2 inch, Pickings, etc.

SIDING.

Table with columns for 1 in siding, cutting up, picks and uppers, etc.

1X12 INCH.

Table with columns for 12 and 16 feet, mill run, 12 and 16 feet, No. 1 and 2, barn boards, etc.

1X10 INCH.

Table with columns for 12 and 13 feet, mill run, mill culls out, 12 and 13 feet, dressing and better, etc.

1 1/4 X 10 INCHES.

Table with columns for Mill run, mill culls out, Dressing and better, etc.

1X4 INCHES.

Table with columns for 6, 7 or 8, mill run, mill culls out, etc.

1X5 INCHES.

Table with columns for 6, 7 or 8, No. 1 culls, 6, 7 or 8, No. 2 culls, etc.

SHINGLES.

Table with columns for XXX, 18 in. pine, Clear butts, pine, 18 in., etc.

LATH.

Table with columns for No. 1, 1 1/4, No. 2, 1 1/2

BUFFALO AND TONAWANDA, N. Y.

WHITE PINE.

Table with columns for Up'rs, 1, 1 1/4, 1 1/2 and 2 in., Shelving, No. 1, 13 in, etc.

BOX.

Table with columns for 1x10 and 12 in. (No 3 out), 1x6 and 8 in. (No. 3 out), etc.

SHINGLES.

Table with columns for 18 in. XXX, clear, 18 in. XX, 6 in. clear, etc.

LATH.

Table with columns for No. 1, 1 1/4

ALBANY, N. Y.

PINE.

Table with columns for 2 1/2 in. and up, good, Fourths, Selects, etc.

SHINGLES.

Table with columns for Sawed Pine, ex. XXXX, Clear butts, etc.

LATH.

Table with columns for Pine, \$2 25 | Spruce

SAGINAW, MICH.

FINISHING LUMBER—ROUGH.

Table with columns for Uppers, 1, 1 1/4 and 1 1/2, Selects, 1 in., etc.

SIDING.

Table with columns for Clear, 1/2 in., 3/4 in., Select, 1/2 in., etc.

TIMBER, JOIST AND SCANTLING.

Table with columns for 2x4 to 10x10, 12, 14 and 16 ft., 18 ft., etc.

SHINGLES.

Table with columns for XXX 18 in. Climax, XXX Saginaw, etc.

LATH.

Table with columns for Lath, No 1, white pine, Lath, No. 2, W. pine, Norway

THE ANDREWS LUMBER DRIER.

THERE may be persons who do not appreciate the advantages of the artificial drying of lumber. But the shrewd men, in the manufacture of furniture and other woodwork where reputation would be sacrificed by a lack of proper material for good gluing and finishing, recognize a good system of drying as an important element of their success. High scientific authorities and thoroughly practical men are now agreed that the hot-blast and rapid-current systems are wasteful, and that steam heat is the only safe means for artificial drying. The mode of applying steam heat most efficiently and economically is therefore now the essential point.

The Andrews lumber drier, illustrated herewith, has a double inner wall, reaching nearly to the ceiling and nearly to the floor, and extending toward the middle of the drier; also a tight outer wall of rolled hard brass. The space between these two walls forms a down flue, communicating at its foot with an extension flue at the bottom of the kiln. Above these bottom flues are the steam coils which furnish the heat.

In the car drier the lumber is placed upon cars outside the kiln and is rolled in on tracks. The cars stand directly above the coils and close enough to get the advantage of the radiant heat. The air from the heaters passes up slowly through the lumber, taking up moisture from it, and then goes over the inner wall down the side flues to the bottom. On its way down, as it comes in contact with the sheet-brass outer wall, its moisture condenses on the cool metal and trickles down. By means of small gutters on the inside of the metal walls near their foot, the water is conveyed out of the kiln. The air, having thus parted with much of its moisture, passes through the bottom flue to the coils to be heated again, its partial dryness now making it more effective than common air for this purpose; yet this air is still so tempered with moisture that no absolutely dry air comes in contact with the lumber except at the dry end of the kiln. This circulation goes on continuously until the seasoning is complete.

By this process the lumber is dried in a moist air at a high temperature, and this has been found to give wonderful results. The humidity of the air is so gradually, effectually, and, at last, so rapidly lessened that warping and checking are reduced to a minimum.

This continued use of the same body of air, without access of cold currents, saves a large part of the heat, and hence, in this respect, is more economical than any system yet devised.

This kiln does its work perfectly either in summer or winter. Summer drying by the Andrews process and drier is usually done in a few hours less than winter drying. The temperature within the kiln is so much higher than that outside that the metal walls are very efficient as condensers—the inside temperature is seldom less than 150°, especially toward the finish, while the outside air in summer ranges from 90° down to 50°. Thus the metal walls of the drier, which are very nearly of the temperature of the outer air, are from 60° to 100° colder than the drying room, their efficiency increasing as the inside temperature rises. This difference between outside and inside temperature is amply sufficient for condensing purposes.

The Andrews is a continuous process. In other systems, when the engine or fan is stopped, both the source of heat and the circulation cease. With a kiln full of green lumber in the process of drying, this stoppage is often the cause of losing the entire contents from mould and mildew. In this kiln, as long as steam is allowed to pass from boiler to kiln it will work even at a very low pressure. In the car drier as each car is loaded it is rolled into the drying room and pushed forward. This is repeated each day until the kiln is filled with cars. When the cars have passed through the kiln and reached the delivering end they are ready to take out and unload upon the rear platform; or they can be rolled upon transfer cars for unloading elsewhere. The lumber from this process is natural in color, bright, and lively.

In the construction of this kiln much labor and

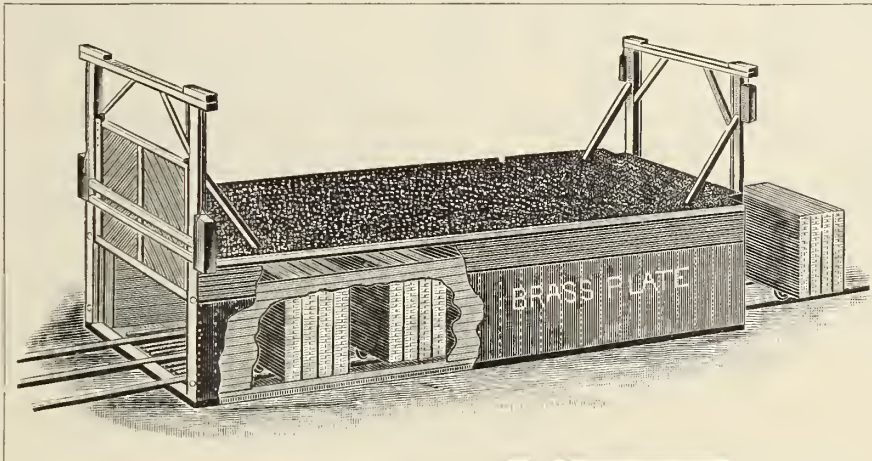
material are saved, as it is of the simplest form. No expensive foundation or separate house for engine, blower, and heater is needed. All kilns sold are furnished with automatic steam fire extinguishers, which do away with any suspicion of danger from fire, thereby lessening fire risk, a point that fire insurance companies have for a long time been trying to impress upon lumbermen and manufacturers of wood-work.

Further particulars regarding this drier will be cheerfully furnished by addressing the Dominion Dry Kiln Co., Canada Life Building, Toronto.

TRADE NOTES.

The Dodge Wood Split Pulley Co., of Toronto, advise us of a very brisk spring business. The larger class of sawmill men are becoming better acquainted with the wood split pulley and we learn are now patronizing the Dodge Co. quite liberally. They argue that when such firms as Hurdman's, of Ottawa, Gillies, of Braeside, Rathbun, of Deseronto, etc., can find it profitable to adopt the Dodge patent pulleys, that it is fairly reasonable to say it would pay every sawmill man in Canada to look into the matter and see if they do not require Dodge Wood Split Pulleys.

A man by the name of C. B. Dudley, who claims to have some reputation as a chemist, has recently made some analysis of anti-friction metals among which is the Magnolia Metal. There are gross errors in the analysis of Magnolia Metal, and those of other anti-friction metals are incorrect. H. G. Torrey, U.S. Assayer in U.S. mint service, New York, has written the following so far as Magnolia is concerned: "In the analysis of Magnolia Metal, Dr. Dudley has overstated one constituent part, and has omitted tin (which it always contains) and other materials. On the same page is given an analysis of antimonial



THE ANDREWS LUMBER DRIER.

lead, which may be correct, but not an ounce of this is ever used in Magnolia Metal."

Nothing in connection with machinery is of so much importance as good metal for its frictional parts. Trying to be economical in this respect can only be accomplished by using the best metal you can get; and we say every man to his trade. Not every man can make Babbitt. The trouble with Babbitt is it cannot be made twice alike. You would not take your watch to a blacksmith for repairs, though a good man in his way. Mr. Alonzo W. Spooner, of Port Hope, makes a reliable metal for all such purposes. People may advertise and say all they like against his metal (copperine) but we know it is doing the best and hardest work in Canada, and that it is gaining in favor every year. We admire his saying that it is Canadian made and stumps the world. There is no bark on his talk.

A POOR GIRL WINS \$15,000.

The Province of Quebec lottery continues to pursue the even tenor of its way in no manner molested by the officers of the law, who are fast cleaning out the People's and other lotteries that endeavored to secure a foothold in Quebec. The Provincial Government makes an exception in the case of this particular lottery and extends to it the protection of special legislation. On May 4 a drawing took place when the capital prize of \$15,000 was won by Miss Mary Donovan, 113 Dufresne Street, Montreal, Quebec. In this case Dame Fortune was not blind. Miss Donovan belongs to a poor but highly respectable family. The father, now dead, was one of the good parishioners of Reverend J. J. Salmon, parish priest of St. Mary's Church, Craig Street, who takes pleasure in recalling the merits of this good man. The mother, left a widow, depended mostly for a living on her daughter's daily labor.

THE MAIL BAG.

NEWS BUDGET FROM BRITISH COLUMBIA.—Mr. J. B. Kennedy, president of the Brunette Sawmill Co., is in Manitoba and the Northwest on business. Morton Bros. Nicomekl Sawmill, B.C., have sold their old boiler and engine to make room for larger and stronger ones, to enable them to meet the demands of a growing trade. Mr. Ernest Buse has sold his interest in the sawmill near Hastings to the Buse Milling Co. Mr. George B. Shaw, a prominent lumberman of Wisconsin, is expected to visit British Columbia very shortly. The Mechanics Mill Co., of New Westminster, has assigned. Henry Drum and P. A. Paulson, of Tacoma, Wash., have secured an option on 40,000 acres of timber land in British Columbia, tributary to Victoria, and propose to organize a syndicate for the purchase of a mill and the working up of the timber.

NEW BRUNSWICK BUDGET.—A Madawaska, N.B., correspondent of the St. John Telegraph tells us Mr. A. Cushing, of St. John, 11th May, came to look after the Alagash drive of about 3,000,000, which is under the management of W. J. Noblis. It will reach the corporation limits shortly. Robert Conner's drive is about in the limits of the corporation. John A. Morrison's drives are all out in the Main River at St. John. His one on two mile brook has formed a jam, and in all probability he will be put to a lot of trouble to break it. Neil McLean has abandoned his drive on Nigger brook. W. H. Conliff's drive on the Alagash is coming along nicely. Stephens and Dickens drives are together; it comprises about 7,000,000; Robert Conners has it in charge. Burgess' drive is about in River St.

John; Tidley, Tirreck, Cranford and Burgess' drives on Grand River are nearly into and soon will be in Main River, St. John. Burgess' drive in Little River is partly out, Beaver brook and Ryan brook more or less left behind; what he has on Main stream will be down in a few days. Water falling fast. Never was a finer spring for driving the St. John River, the water low and keeps about the same pitch; those who have the corporation drives above and below Grand Falls must make a small fortune, unless through their own fault. The last few weeks the Main River has been running thick with logs, and will not leave St. John mills in fear of a supply to meet their demand.

SAULT STE. MARIE, MICH.—A deal has been closed here by which Frank

Perry, of this city, Lewis A. Hall, of Bay Mills, and J. L. Norton, of Lockport, Ill., composing the Perry Lumber Company, bought 192 square miles of the Canadian Indian reservation tributary to the Goulais and Batchawanna rivers, about forty miles above here. The bonus paid for the right to cut timber was \$50,000 after which came the timber royalties. The deal will reach into the millions, and will result in pine, spruce and cedar operations of immense proportions. The Soo Paper Company, of Niagara Falls, N.Y., will build two mills at the mouth of the Waiskay river, ten miles above here. One will cut lengths of spruce into pulp wood and the other will be a cedar mill. Docks will also be built. The company owns over 12,000 acres of spruce and cedar lands at the Waiskai. Mr. Perry has long been a heavy operator, and Mr. Hall is of the well known firm of Hall & Buell, a concern that has handled from 50,000,000 feet upwards in upper Michigan for years. He is also a member of the Hall & Munson Lumber Company, of Bay Mills. O. E. Elsemore, with James T. Hurst, has left for Canada for the purpose of looking over some timber limits on the Wahnapiatae river with the view of investment. John Boyle, of London, Ont. has purchased a quantity of timber on section 22, town 20-2 West, Gladwin county, this State, and is building camps to lumber this summer.

THE REDDAWAY BELTING.

The "Camel" brand of belting, advertised by F. Reddaway & Co., of Montreal, Que., in another column, has claims that make it worth the while of those interested to carefully examine. This firm supplies all kinds of linen belts, fire hose, etc.

THE LUMBER TRADE ABROAD.

—It is said that 30,000 wooden spoons are made in Russia from birch every year.

—The sawmill men at Lacrosse, Wis., who were out on strike, have been defeated.

—Forest fires are prevailing throughout Prussia and are causing an unusual amount of damage.

—Over 10,000 sawlogs passed down in a flood on the Kentucky River, from the neighborhood of Frankfort.

—Maine has lost one of its old lumbermen in the death of Mr. Justus Hathaway of Medford, at the age of eighty-four.

—The Postmaster-General of England is inviting tenders for the supply of South of England oak for telegraph arms.

—Lightning struck the Forestry Building at the World's Fair grounds May 2. It did little damage except splitting several timbers.

—The Hattburg veneering factory at Marshfield, Wis., has orders ahead for 150,000 barrel heads and all the cheese boxes they can make.

—A rich lumberman and a member of the Michigan Legislature has found out that his marriage with Brigham Young's nineteenth wife, Ann Eliza Young, who acquired celebrity as a lecturer, is a failure.

—Juniper is becoming known as a substitute for cedar and cypress for nearly all the uses for which the latter woods have hitherto been utilized. In Mississippi, juniper telegraph poles, piles and large timber are in great demand.

—The S. K. Martin Lumber Co. are by far the largest holders of dry shingles of all grades in Chicago to-day. Mr. Martin stated a few days since that he did not know a single concern manufacturing standard shingles at the present time; and that the great mistake most mills make is to allow the quality of their shingles to deteriorate after the wholesale dealer had gone to the trouble and expense of introducing their product to the trade.

—Labor troubles are reported from California. Isaac Miner, a lumberman operating two mills near Arcata, attempted during the past month to increase the working hours of his labourers from ten hours to eleven and a half, but the men refused to work. It is rumoured that a mill in Eel River Valley will also reduce wages, and it is presumed that some others may soon follow or stop operations altogether unless conditions change.

—William Anderson, of Eau Claire, Wis., a member of the logging firm of Anderson Brothers, disappeared a couple of weeks ago, and although nearly every point in the north-west has been asked for tidings by wire, no trace of him has been found. The missing man has a wife and three children at Eau Claire, and is well off financially. His brother believes he has been killed and robbed of \$500 he had with him, or has committed suicide.

STEEL RAILS, ETC.

SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways. 20 pair wheels and axles, all in good second-hand condition, very cheap.

JOHN J. GARTSHORE,
49 Front Street West,
Toronto.

The Georgian Bay Consolidated Lumber Co.

MANUFACTURERS OF

PINE LUMBER, BILL STUFF, SHINGLES AND LATH

Shipments by Vessel
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Address **WAUBAUSHENE, Ont.** or 24 King St. West. **TORONTO**

A. M. DODGE, President.
W. J. SHEPPARD, Superintendent.
JAS. SCOTT, Vice-President.
C. P. STOCKING, Treasurer.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

SAW MILL FOR SALE

IN PROSPEROUS TOWN ON GEORGIAN Bay, eighty h.p. engine, modern improvements, capacity 25000 per day, rail and water conveniences, siding to lumber piles. Easy terms. Whole or half interest. Plenty of stock can be bought. Write for particulars. Lock Box 7, Hepworth station, Ont.

THOROUGHLY EXPERIENCED LUMBER BUYER WANTED.

APPLICANT MUST BE FAMILIAR WITH Ash and elm lumber. None but men of undoubted ability need apply. State age, experience and references.
P.O. BOX 2144,
New York, U.S.

WANTED TO BUY

GOOD CANADIAN TIMBER LIMITS AND Georgian Bay saw logs. Address, BEN BIRD-SALL, Whitney Building, Detroit, Mich.

FOR SALE

AT KINGSTON FOUNDRY & MACHINERY Co. (Limited), two Sawmill Engines, cylinders 13 x 21, fly-wheel 9 ft. 6 in. drain, driving pulley 7 ft. x 18 in. face—new—at a bargain.

WORTHINGTON COMPOUND STEAM PUMP FOR SALE.

STEAM CYLINDER 12 AND 18 1/2 INCHES diameter; water cylinder, 10 1/4 inches; length of stroke, 10 inches; speed, 75 to 125; capacity, 530 to 890 gallons per minute; 2 1/2-inch steam; 3 1/2 exhaust; 8-inch suction; 7-inch discharge; capacity, 4 to 6 good fire streams. This pump supplied the city of Brantford for several years satisfactorily for fire and domestic supply when its population was over 10,000. It is in thorough order and will do equally as good service as when new. For prices and further particulars address **WATEROUS ENGINE WORKS CO.,** Brantford, Canada.

TO RENT.

LARGE PLANING MILL WITH EXCEPTIONAL FACILITIES. Railway switch into premises. Also Flat, with or without power, steam-heated, suitable for all kinds of woodworking. Apply **J. F. CANNIFF,** 36 Toronto St., Toronto.

WHITE BIRCH AND SOFT ELM WANTED.

LUMBERMEN HAVING 1-IN. RED BIRCH and 2-IN. Soft Elm, firsts and seconds, for sale, please communicate with **W. W. BROWN,** 202 Main Street, Buffalo, N.Y.

WANTED.

SAWERS AND FILERS

TO SEND ME THEIR ADDRESS, AND I will send free instructions on hammering saws that is certified to be worth from \$50 to \$100.
J. H. MINER, Bixi, Miss.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. **ROBERT THOMSON & CO.,** 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write **J. E. MURPHY,** lumberman, Hepworth station, Ont.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. **TUCKER DAVID,** lumber commission merchant, 202 Eleventh Ave., N.Y.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds, must be of uniform color; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Can also use Soft Elm Logs 20 in. and over in diameter for export; Red Birch Lumber I and II, all thickness; also Red Birch squares 5 x 5 and 6 x 6, 10 feet and over long, good squares.

Address all particulars as to dryness, quality, quantity on hand and price, to **P. O. Box 2144, New York, N.Y.**

NORTH SHORE NAVIGATION CO.

ROYAL MAIL LINE

To Sault Ste. Marie and Georgian Bay Ports

STRS. CITY OF MIDLAND, CITY OF LONDON, FAVORITE AND MANITOU

Running in connection with the G.T.R. and C.P.R., will sail as follows:—

The **CITY OF MIDLAND** and **CITY OF LONDON** will leave Collingwood every **Tuesday** and **Friday** on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same days at 10.30 p.m. after arrival of C.P.R. train from Toronto, connecting at Warton with night train from the south, and calling at intermediate ports to **Sault Ste. Marie.**

Steamer **FAVORITE** will leave Collingwood **Mondays and Thursdays** after arrival of morning trains for Parry Sound, Byng Inlet, French River and Killarney, connecting there with above line of steamers for the "Soo." Returning will make close connection at Midland on **Wednesdays and Saturdays** with trains for the south and steamer **MANITOU** for Parry Sound.

Steamer **MANITOU** will make regular trips from Penetanguishene, connecting with trains from the south, only at Midland on **Monday, Wednesday, Thursday and Saturday** for Parry Sound, connecting there with Steamer **FAVORITE** for Byng Inlet, French River and Killarney, where connection is made with above "Soo" line of steamers.

For tickets and further information apply to any agents G.T.R. or C.P.R., or to

C. E. STEPHENS, Collingwood | **W. J. SHEPPARD,** Manager, Waubausene
Sec. Treas., Collingwood

ENGINE AND PLANER FOR SALE

A 20 TO 25-H.P. LEONARD ENGINE AS GOOD as new, is at present running sawmill, cutting 5,000 to 8,000 per day of ten hours. Also a 24 inch planer and matcher in good order. Would exchange planer for a large engine.

ROBT. BELL, JR.,
Box 35, Hensall, Ont.

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Lumber and Commission Merchant

RECEIVER AND FORWARDER OF

LUMBER, LATH AND SHINGLES

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OWEN SOUND, ONT.

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BERTH NO. 35, CONTAINING 36 SQUARE Miles, situated on French River, within about twelve miles of Georgian Bay. There is a large creek and other smaller streams crossing the same which empty into the French, and containing large quantities of Pine Timber. Has never been lumbered on.

Apply to
EXECUTORS OF JOHN BROWN (deceased)
Room No. 8, Drake Building,
Easton, Pa.

SHINGLE MILL FOR SALE

SITUATION :

The Trethewey Falls Shingle Mill is new, built 1891, on the South Branch of the Muskoka River, 5 miles from Bracebridge, near South Falls switch N. & N.W. R.R. With the mill are 5 acres of land, large boarding house, team horses, wagon, sleighs, etc., etc., in fact complete equipment for mill and lumber camp.

MACHINERY :

Consists of Little Giant Leffel Wheel (60 horse power), Boss Shingle Machine, Jointer, Splitter, Drag, Butting and Knot Saws; Endless Chain Burner, Bull Wheel, etc., etc. Building is 30 x 40 heavy frame, with room and shafting placed for second shingle machine. Belting complete and everything in good running order. Circular saw could be added with small expense.

TIMBER :

Is abundant for 50 miles above the mill on the waters of the South Branch—many townships being yet owned by the government—besides thousands of acres of deeded pine, four or five thousand acres of which can be bought immediately. There is also about 400,000 feet of timber at mill which can be purchased with it, so that buyer can commence cutting at once.

The estate must be wound up, and will bear the closest examination. For further information, address

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Toronto, Ont.

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MANUFACTURER OF

Lumber, Lath & Shingles
BRACEBRIDGE, ONT.

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MT. PLEASANT, CLARE, REED CITY

BALDWIN, LUDINGTON, MANISTEE

AND

MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company's line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from

NEW YORK **MONTREAL**
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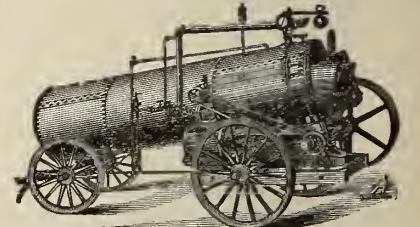
to **ST. PAUL, DULUTH** and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and a great deal of information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., W. F. POTTER,
General Manager. Gen'l. Sup't.
A. PATRIARCHE, Traffic Manager.

GENERAL OFFICES: - **SAGINAW, MICH.**

The MONARCH BOILER (Patented) and HERCULES ENGINE



Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.

The 70 horse power can be taken over the roughest roads, or into the forest, and set up as easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

Write for circulars.

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Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.
Every description of Lumbermen's Supplies and Waterproof Clothing.

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Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

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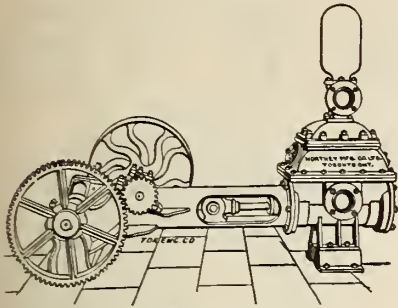
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TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
"	"	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
"	"	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	"
"	"	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	"
"	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 26 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	"
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 16m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Sun., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossong & Co.	Lumber, Wholesale and Retail	"
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	"
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	"
Byng Inlet, Ont.	"	Georgian Bay Consol. Lumber Co.	Sawmill, Pine, Hemlock, Birch	Steam, Circular, 20m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	"
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	"
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	"
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
"	"	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	"
Little Current, Ont.	Sudbury	Charlton, J. & T.	Sawmill, Pine, Ash, Birch, Oak, Wholesale	Steam, Circular, 25m
"	"	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
"	"	Howry, J. W. & Sons	Lumber, Wholesale and Retail	"
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	"
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Midland, Ont.	Midland	Peters & Cain	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 15m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	"
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 4m
Louise, Ont.	Elizah, G.T.R.	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	"
Toronto, Ont.	Toronto	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m.
"	"	Campbell, A. H. & Co.	Lumber, Wholesale	"
"	"	Ontario Lumber Co.	Lumber, Wholesale	"
"	"	Shannon Shingle Manufacturing Co.	Shingle Mill, Pine, Cedar	Steam, 8m
"	"	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakey, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Steam, Circular and Band, 50m
"	"	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fir, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
"	"	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fir, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

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The Montreal Car Wheel Co.

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Charcoal Iron Chilled RAILROAD WHEELS

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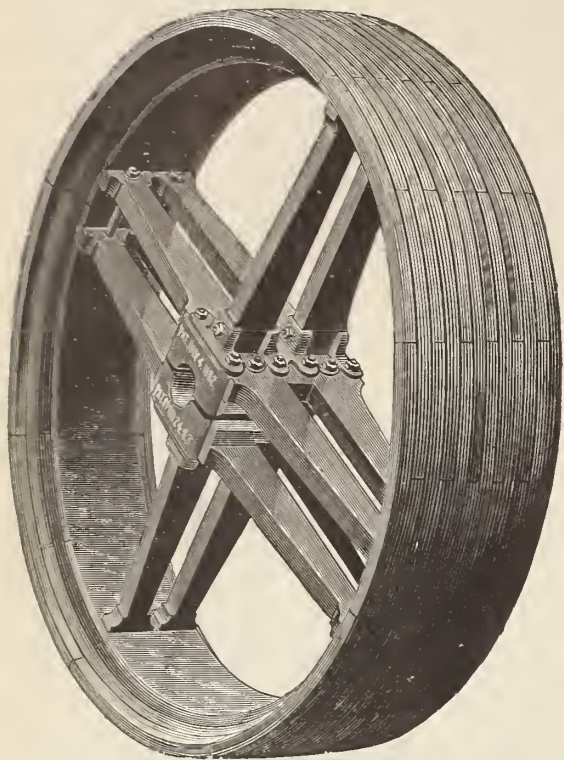
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ABSOLUTELY GUARANTEED STRONG ENOUGH FOR DOUBLE LEATHER BELTS, ANY WIDTH.

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- SECOND HAND MACHINERY FOR SALE by the Canada Machinery and Supply Co., Brantford, Ont., Dealers in New and Second Hand Machinery and Mill Supplies.
- 1 2 x 16 WATEROUS DOUBLE CUT-OFF ENGINE with Pickering governors.
 - 1 12 x 16 BECKETT SLIDE VALVE ENGINE with Judson governors.
 - 3 6 1/2 x 9 COPP BROS. & BARRY SLIDE VALVE Engine.
 - 1 5 1/2 x 9 SLIDE VALVE ENGINE.
 - 1 6 - H. P. UPRIGHT ENGINE WITH 8 - H. P. boiler connected and set up on cast iron base.
 - 1 2-H.P. UPRIGHT MARINE ENGINE WITH 4-h.p. upright boiler, complete with propeller shaft and screw.
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 - 1 25-H.P. BRICK-IN BOILER.
 - 1 6 H.P. UPRIGHT LEONARD BOILER.
 - 1 SMALL FIRE BOX BOILERS FOR CHEESE factory use.
 - 1 NORTHEY STEAM PUMP, 2 1/2 IN. SUCTION, 1 1/2 inch discharge.
 - 1 WATEROUS SELF-ACTING SHINGLE MILL and Jointer.
 - 1 UPRIGHT SWING SHINGLE MILL AND Jointer.
 - 1 WATEROUS LATH MACHINE, THREE saws.
 - 1 SET IRONS FOR TWO HEAD BLOCK SAW mill.

- 1 GOLDIE & McCULLOCH IRON TOP Shaper.
 - 2 CANT-GOURLAY 24-IN. PONY PLANERS.
 - 1 CANT-GOURLAY 10-IN. BUZZ PLANER.
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 - 52 FT. 6 IN. OF 18-INCH 6-PLY RUBBER drive belt in good order.
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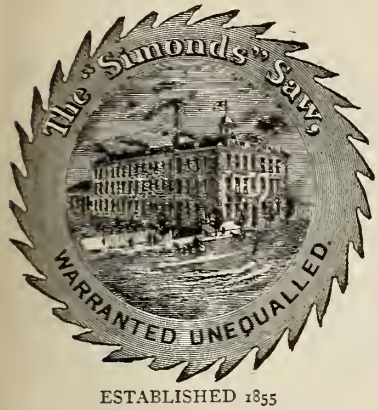
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BEST MACHINERY BOX-METAL EXTANT.
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QUALITIES TO DO ALL YOUR WORK.
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FOR ENGINEERS
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FOR SAW MILLS PLANING MILLS
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Myrtle Navy
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F. SCHOLES, MANAGING DIRECTOR


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Rubber Seamless
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Belting For the Dominion of Canada



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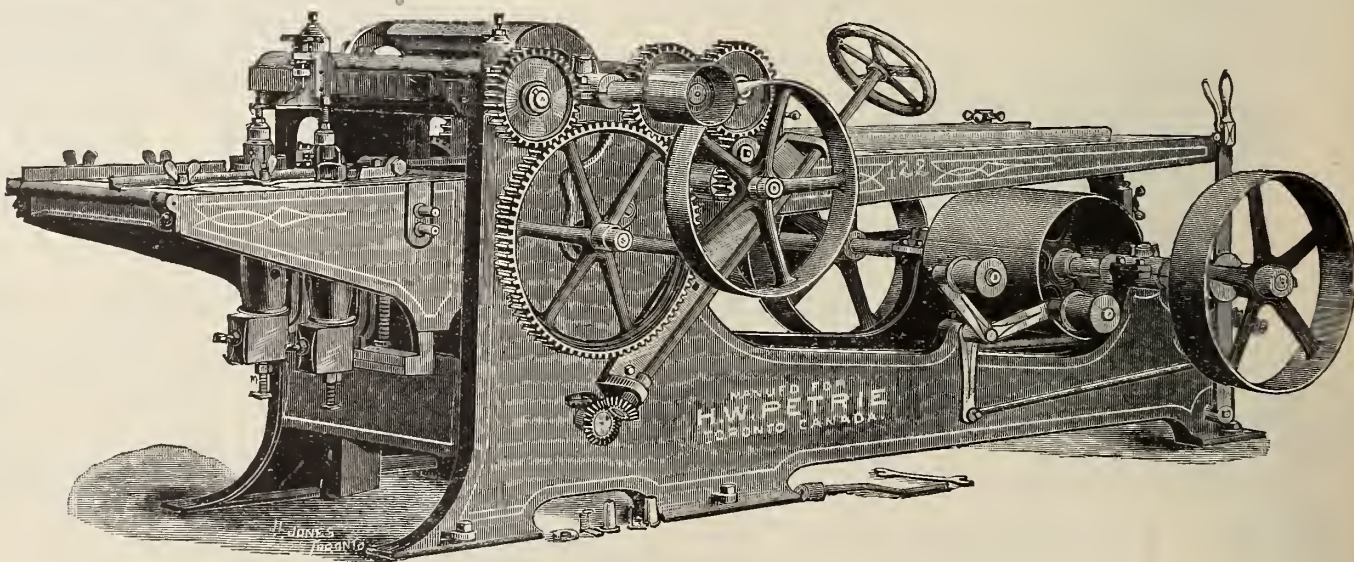
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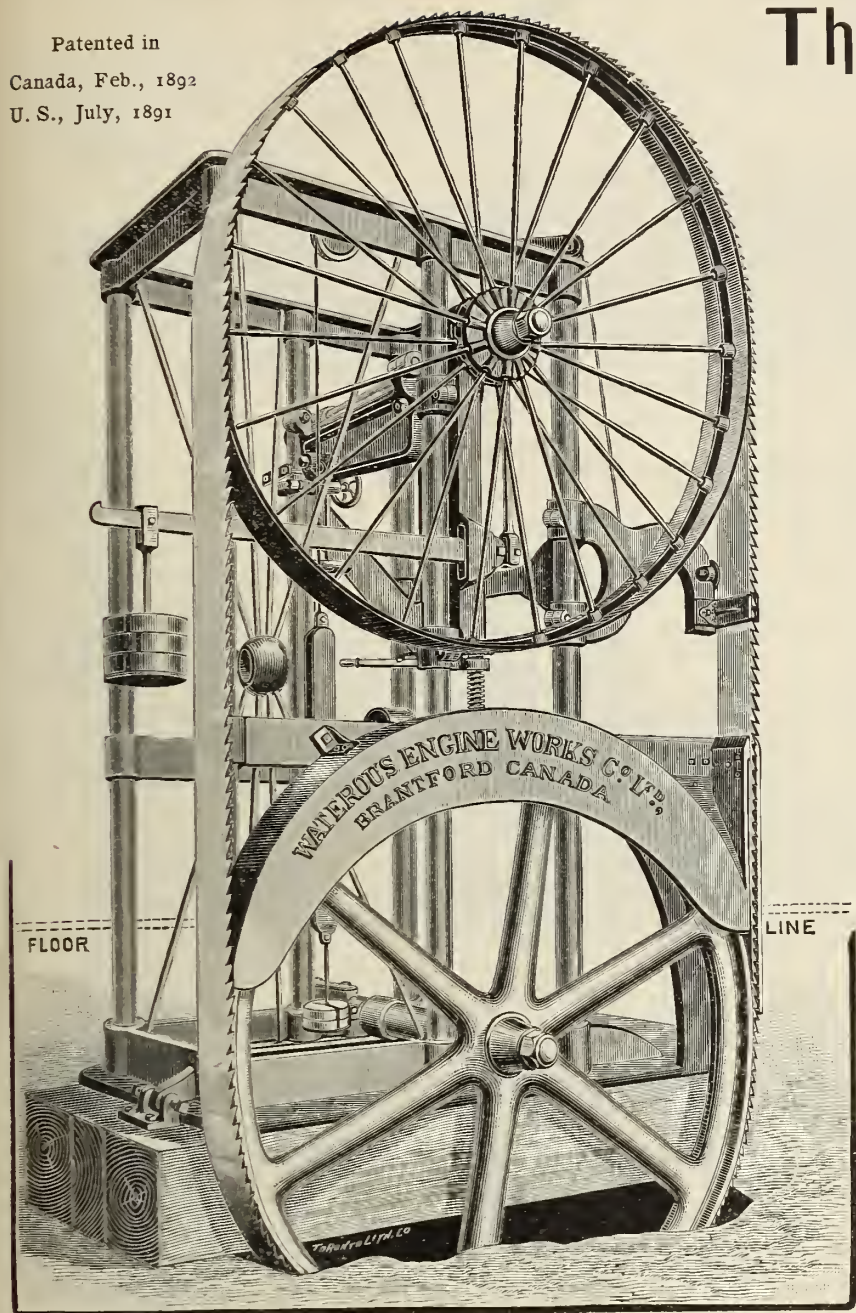
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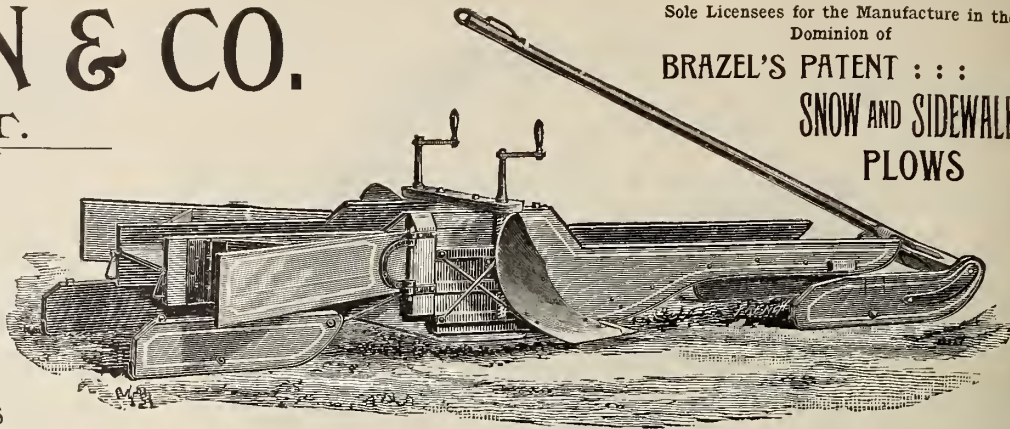
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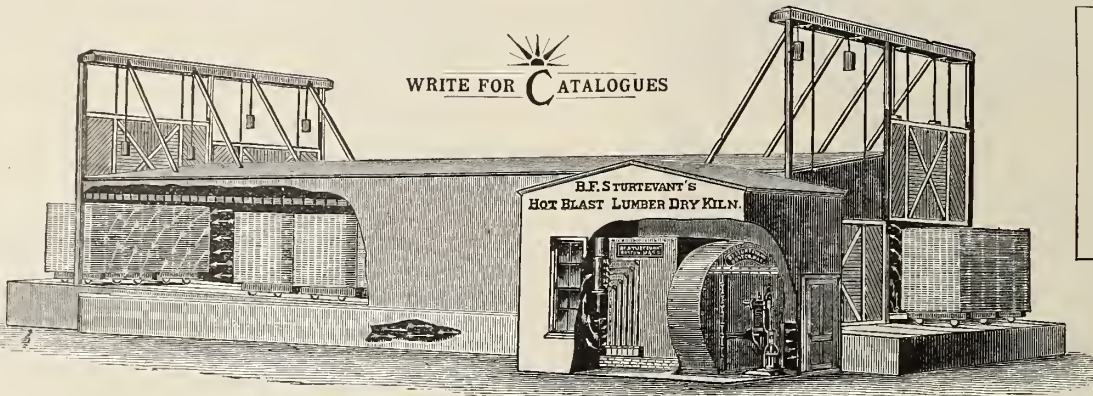
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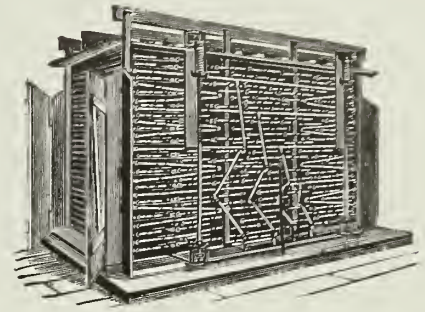
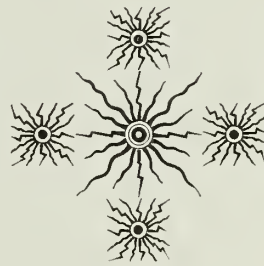
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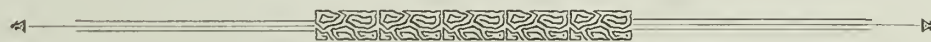
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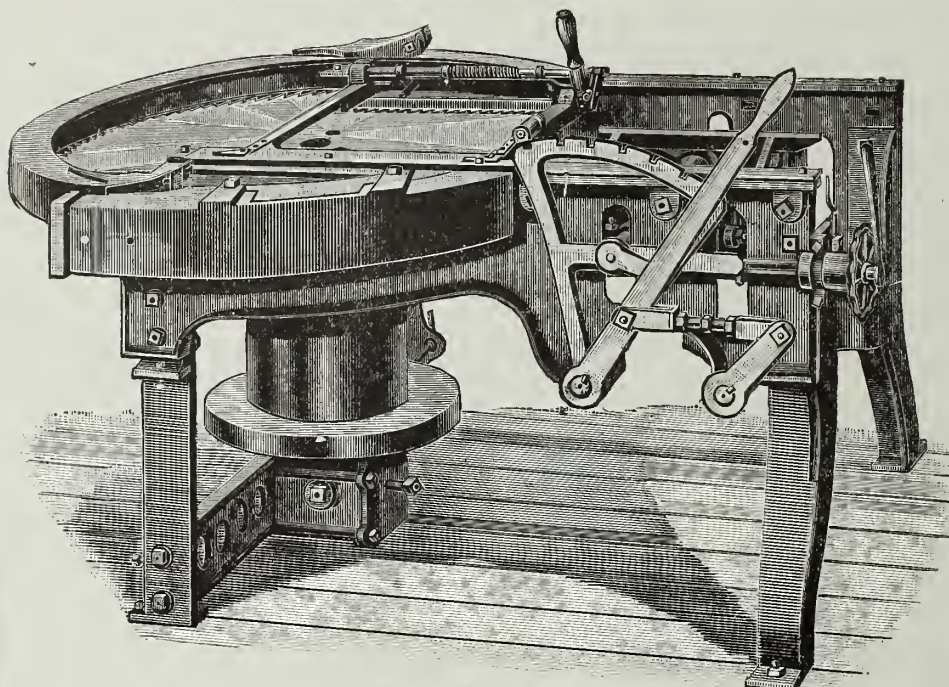
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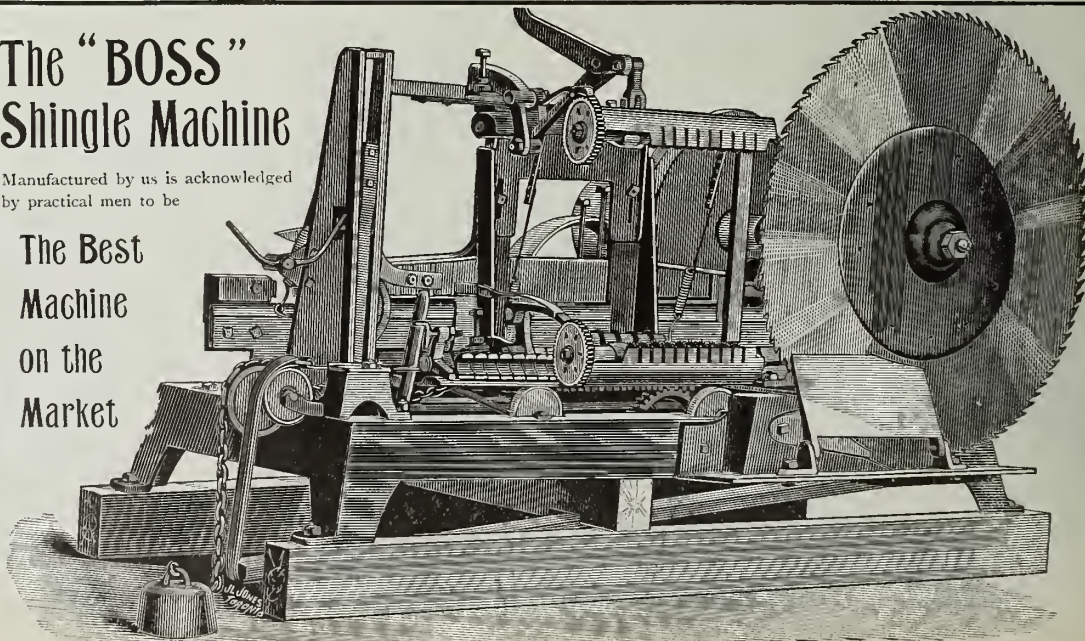
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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIII. }
NUMBER 7.

TORONTO, ONT., JULY, 1892

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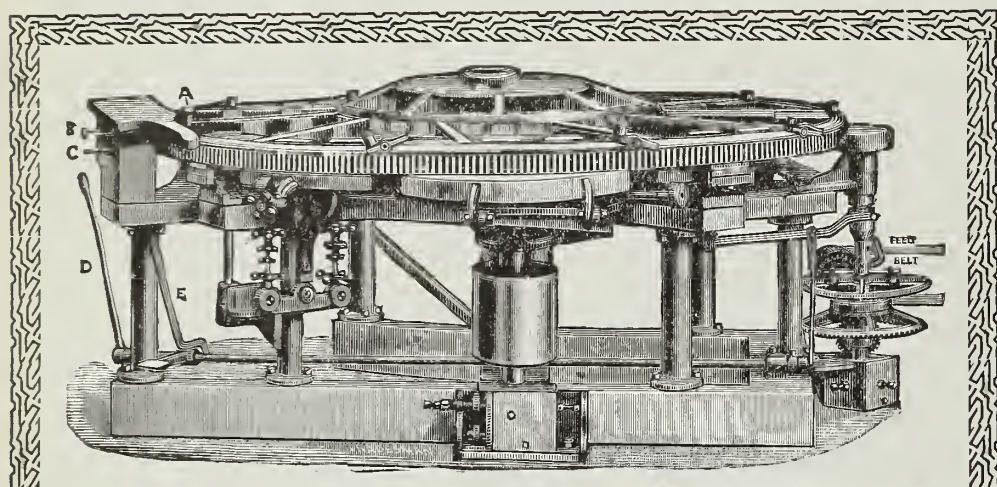


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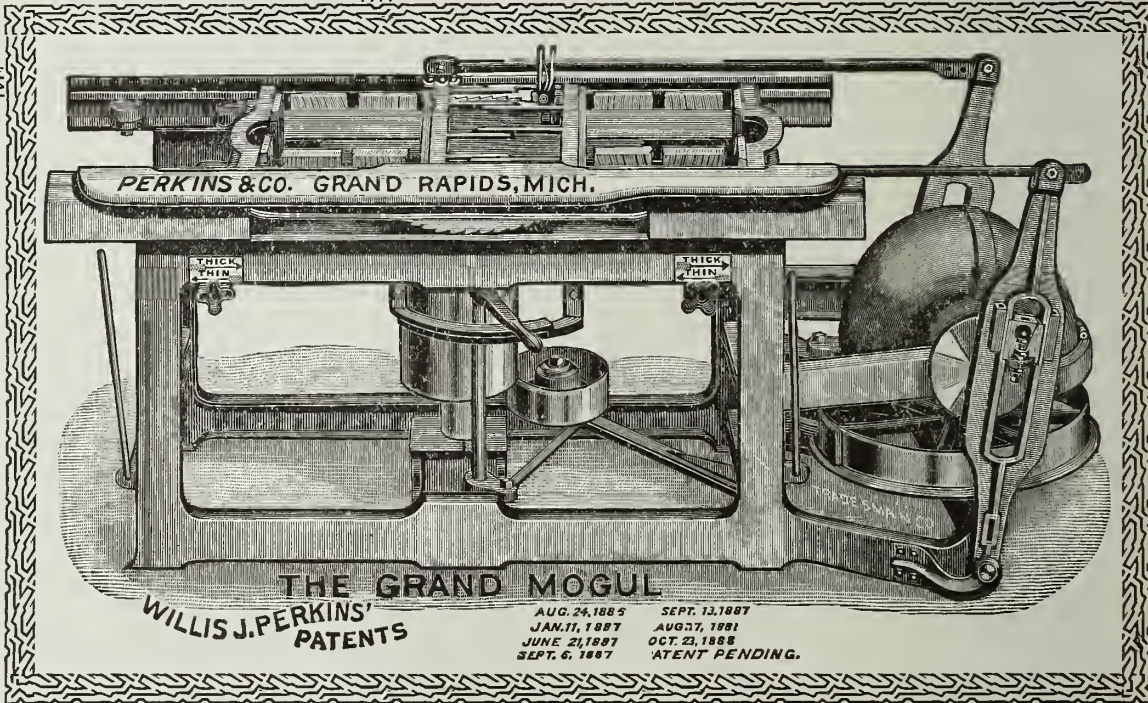


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THE CANADA LUMBERMAN

VOLUME XIII. }
NUMBER 7. }

TORONTO, ONT., JULY, 1892

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BY THE WAY.

A DESPATCH from Saginaw, Mich., to the Detroit Free Press says: "Logs are coming in from Canada, several rafts having arrived. It is estimated that about 170,000,000 feet will come across the lake to Tawas and the Saginaw River this season. The Emery Lumber Co. will bring over 40,000,000 and the Saginaw Lumber & Salt Co. 20,000,000; J. W. Howry & Sons 22,000,000, and Sibley & Bearinger 21,000,000 feet." We suppose that on the whole these figures come somewhat near what will show at the end of the season to be the actual facts. Mr. R. H. Roys, of the Saginaw Sash & Lumber Co., has said that his company and the Emery Lumber Co. together will raft 60,000,000 feet across, and this about agrees with one statement given above. In the Michigan letter of the LUMBERMAN last month McKean & Glover, of Bay City, who are interested in Canadian timber, placed the total at 130,000,000. Somewhere from 125,000,000 to 175,000,000 will likely turn out to be the correct export of Canadian logs for the year. It would help to a better understanding of the lumber situation if along with these export figures in logs there could also be furnished an estimate of the trade in sawn lumber between Canada and the States. Those without a knowledge of the whole situation must be expected to express regret that so large a quantity of the product of our forests is removed to a foreign country there to be manufactured by American workmen into lumber. They are not supposed to know possibly that the legislation, which permits of a trade deemed by some an injury to the country, at the same time creates an enlarged market for sawn lumber of a kind and quality hitherto a drug to the Canadian lumberman. The manufacture of the increased quantity of lumber needed to supply this demand has given an impetus to milling that would not otherwise exist. The rule is one that works two ways in this case.

The Ontario Government has recently brought out in pamphlet form, with illustrations, a comprehensive description of the soil, climate, products, agricultural capabilities and timber and mineral resources of the Rainy River district. The work embraces fifty-two pages, and is edited and compiled by Mr. Frank Yeigh, of the Crown Lands Department, who has done his work in creditable manner. The Rainy River territory abounds in valuable timber, embracing pine, poplar, birch, basswood, oak, elm and soft maple, balm of Gilead, spruce, cedar and tamarac. On the banks of the Seine and other rivers flowing into Rainy Lake there is a very large growth of red and white pine. Seven large sawmills are located at Rat Portage, Norman and Keewatin, having a united capacity of 100,000,000 feet board measure a year. Besides these there are four other sawmills on Rainy River and Rainy Lake. It is estimated that there are two million dollars invested in these eleven mills, their combined annual product reaching four million dollars, and employment is furnished during the season to over two thousand men.

The Quebec Legislature is moving on the lines of the Lumberman's Lien Act of the Ontario Government, passed two sessions ago. Mr. Panneton has introduced a bill which provides that: "Every person engaging himself either by agreement in writing or otherwise to cut and manufacture timber, or to draw it out of the forest, or to float, raft or bring it down rivers and streams, has, for securing his wages or salary, in preference to all other creditors, a first privilege upon all other timber belonging to the person for whom he worked, and if he worked for a contractor, sub-contractor or foreman, upon all the timber belonging to the person in whose service

such contractor, sub-contractor or foreman were." The introduction of the measure provoked a long and lively debate, taking the thoughts of our lower province lawmakers for a time from the troubles of the State to the worries and difficulties that beset some of the lowliest of their people. Similar objections to those urged against the Ontario Bill were raised against Mr. Panneton's proposals. Mr. Cooke contended that it would prove prejudicial to the lumber industry, one of the most important in the province. The rights of the workmen were championed by Mr. Fitzpatrick, who made the point that the lumbermen were the only class of workmen who were not now protected by the law by a lien on the product of their labor. Legislation which may disturb important commercial interests needs to be touched with care, but it cannot be said that the experience in this province has as yet shown any of the ill effects on trade that were anticipated. Quebec will likely adopt the measure.

One of the most extensive lumber and sawmill transfers that has taken place in Canada for many years was completed at Ottawa a week ago. The contracting parties were the executors of the late James Maclaren and the firm of W. C. Edwards & Co. The latter purchased all the property owned by the late James Maclaren, at New Edinburgh, including the sawmill site, the island, the several piling grounds, the right of water power of the Rideau Falls and everything else pertaining to that property, with immediate possession. In addition to this the firm of W. C. Edwards & Co. purchased the whole of the Maclaren timber limits on the Gatineau, Lievre, Du Moines and Temiscamingue, comprising nearly 300 square miles of timber limits. On both the vendors' and the purchaser's sides the price is retained as an inviolable secret. It is understood that Messrs. Edwards & Co. will rebuild and run the New Edinburgh mills, using for this purpose the timber from the newly-acquired limits. The success that had always attended the lumber operations of the late James Maclaren is familiar to every LUMBERMAN reader. W. C. Edwards & Co. are successful lumbermen of Rockland, Que., who will doubtless carry on to yet greater successes the newly-acquired property.

LUMBER IN THE NEWER PROVINCES.

THE annual report of the Department of the Interior, recently laid before parliament, contains much information of interest concerning the lumber industry in Manitoba, the Northwest and British Columbia. The total revenue from the Winnipeg office on account of timber, mineral and grazing lands amounted to \$34,855, being a decrease of \$3,200 as compared with the previous year. The price of lumber within the Winnipeg agency varies from \$9 to \$19 a thousand, board measure, according to the quality and kind of the lumber. There are twenty-two mills in operation within the agency cutting under government license. The revenue received from the British Columbia crown timber agency during the last year was \$45,994, an increase of \$509. Of the amount collected the sum of \$19,275 has been received for bonuses of berths put up to public competition. The total area acquired was about 205 square miles, averaging a bonus of \$94 a square mile. The total quantity of lumber manufactured for the year amounted to 30,597,439 feet, as compared with 13,546,943 feet for last year, and sold at the rate of \$9 to \$19 a thousand. There are fourteen mills within the agency cutting timber under license from the Dominion Government.

The total amount of dues collected with the Calgary agency during the year amounted to \$11,906, being an increase of \$3,693. The price of lumber at Calgary was from \$12 to \$18, at Cochrane, \$16, at Fort MacLeod,

\$17 to \$40, and at Cypress Hill, \$10. Ten sawmills were operating within this agency last year under government license, and several portable mills under permit. The total amount of dues collected within the Edmonton agency was \$6,567, being an increase of \$1,592, as compared with the previous year. The price of lumber at Edmonton during the year was \$10 to \$20 a thousand feet. The agent reports three sawmills in operation within his agency. The total amount of dues collected within the Prince Albert agency was \$6,124, being a decrease of \$1,237, as compared with the previous year. Lumber sold at Prince Albert from \$20 to \$42 a thousand. There is only one sawmill in this agency cutting timber under license, namely, the one at Prince Albert erected by Moore & MacDowall in 1876. There are, however, several sawmills at Prince Albert and Battlefield cutting timber under permit. Sawmill returns received at the head office give the following quantities of building material as having been manufactured and sold during the year within the five agencies:—

	Manufactured	Sold
Sawed lumber.....	52,530,530	50,749,240
Shingles.....	4,797,000	3,948,216
Lath.....	967,350	1,200,200

Ninety-two licenses to cut timber over a total area of 2,435,66 square miles were issued during this year. The area licensed in the province of Manitoba, the three provincial territorial districts, and on Dominion lands in the province of British Columbia are as follows:—Manitoba, 569 miles, Alberta, 1,435, Assiniboia, 59, Saskatchewan, 197, British Columbia, 172.

SUBSTITUTES FOR LUMBER.

THERE is not nearly so much talked and written now about the various substitutes—paper, straw, sawdust, bark, etc.—for lumber as there were a few years ago. An enthusiastic inventor of some paper or straw composition once could get the ear of a newspaper reporter, get his ideas dressed up in choice language and embellished by the reporter's active, but untrained, imagination, and the article would go the rounds of the press, sometimes being copied into the trade press, and be accepted by a great many as an invention that would supercede lumber. Only a few years ago the most extravagant claims were made in regard to straw lumber. It could be sawed, planed, or worked any way just as lumber is. As a matter of fact it was manufactured and put on the market and sold. A few floors were laid of it but they proved utterly worthless in a short while. Wetting caused unsightly blisters which soon developed into uneven places and holes. Another genius proposed to make buggies of paper that would be lighter, stronger, cheaper, and in every way superior to those made of wood. But the paper buggy has not materialized yet, and if it ever does it will soon go to join the straw floor.

Many of these wild ideas about paper as a substitute for wood, and even iron, grew out of the success of what is called a paper car wheel, ignoring the fact that there is very little paper used in a paper car wheel, and what there is, acts only in a supplementary manner to support the iron and steel parts and afford a slight degree of elasticity. The so-called paper roofing furnishes only the ground or body for other water-proof materials.

For the uses to which lumber is usually applied no substitute except iron is likely to come into use to an extent to perceptibly affect the lumber trade. Lumber will still be used in increasing quantities and will probably never be lower in price than at present.

Owing to pressure of other matter the usual "Character Sketch" and portrait is omitted from this month's LUMBERMAN.

A SERMON IN A SAWMILL.

BY REV. D. R. MILLER.

W AAL. Squire, I see yer runnin' of yer sawmill right along,
 Rippin' off yer slabs an' scantlin' to the same old pleasin' song;
 An the crick still keeps a rushin' on the noisy water-wheel,
 An goes dancin' down the tail-race to a new Virginny reel.
 Yer a-pilin' up yer lumber, an' yer sawdust, too, I see;
 But the buzzin' of the sawmill is the ruin of the tree,
 An' I'm goin' to preach a sermon while yer greasin' up the cogs,
 For ter keep the saw a-runnin' thro' yer old sawlogs.
 I have heerd yer say, frien' Will'am, that this cruel liquor trade
 Is a necessary business, an' it never can be stayed;
 But I'm here ter tell yer, Will'am, that no matter what yer think,
 The vile business cannot flourish 'ceptin' someone buys the drink,
 An' as sartin' as you've got ter have some logs to run yer mill,
 Jes' so sartin' must these liquor men have boys ter fill the till,
 An' we bring the human timber, an' they saw it up, yer see,
 Until by and by we're minus both the timber and the tree!
 O, ther' is a sort o' hummin' which I know yer loves to hear,
 When the slabs are fallin' that way an' the lath's a-pilin' here,
 When the lumber's movin' out'ard an' the cash's a-comin' in,
 An' when everythin's a-prosperin' an' times is good ag'in.
 Ah! but when the dives he hummin' an' the wheels of sin go round,
 There's a splendid lot of fellows that I know are being ground,
 You're a-slashin' down the forest, but they're slashin' down our joys,
 An' the rushin' of the business is the ruin of the boys.
 O, that buzzin' saw o' ruin keeps a thrummin' right along,
 It's a-tearin' thro' the helpless an' it's tearin' thro' the strong,
 An' the sawdust that is fallin' is the tears an' blood an' woe,
 Droppin', drippin' in the waters that's a-surgin' down below.
 But the mill-wheels still keep thrummin', an' the slabs are flyin' free,
 An' the dust of blood has fallen till it's sprinkled you an' me,
 An' our boys are droppin' deathward like yer forests on the hills,
 But we still keep up the timber for the runnin' o' the mills.
 You can saw yer logs, frien' Will'am, so that when the work is done
 They are worth far more in money than afore the work begun.
 But for every gash these liquor fellows make upon our boys,
 There's a blood-red gash o' ruin thro' our own domestic joys.
 An' we're all a-stan'in' back of 'em, an' helpin' 'em along,
 An' a-votin' liquor ballots to perpetuate the wrong.
 For I tell yer it's the voter that manipulates the saw,
 When he regulates the business with his tax or license law.
 Yes, the party wins by voters, an' the winners make the law,
 An' the law is the machinery that agitates the saw,
 An' this peerless Christian nation, with a heart as hard as steel,
 Takes the dealers' cash and turns the rushin' water on the wheel.
 Then all the mills go buzzin', and the tears begin ter flow,
 An' the homes begin ter crumble, an' the land is full of woe;
 But I tell yer all the sufferin' an' sorrow that we feel,
 Is because the Christian voter stands himself beside the wheel.

HOW TO BURN SAWDUST ON COMMON GRATES.

THERE are many sawmills that haul off their sawdust and haul back wood to steam their boilers with, thereby doubling the cost of their steam, when if they were to burn their sawdust for fuel they would save the expense of hauling it off and render the cost of their steam only that of putting the dust into their furnaces. Generally all this expense is incurred simply for the reason they have no sawdust grates. If these mills will daily put a small quantity of sand in their dust it will form a substance resembling pottery on their grates that will answer admirably for sawdust grates. This substance will be full of perforations, thus allowing the air to circulate through it, just as it does through grates, and when cold it is very brittle. Every morning it should be broken up, and a portion of it removed from the grates, leaving only enough on them to barely cover them over, and with heavy steaming it sometimes becomes so thick that it is necessary to remove a portion of it at noon. In burning sawdust mix no slabs or other large fuel with it. Burnt alone it is the best fuel that a pine lumber sawmill produces. To burn sawdust in small furnaces a blower in the smoke-stack is indispensable.

CORK FORESTS.

CORK-GROWING in Spain and Portugal is an extremely precarious business, and it demands considerable capital. Only the other day a man in New York City was seeking a partner with \$100,000 to put into a cork forest in Spain, with a lease of 150 years. The bark is cut only once in ten years, but as the forests are very large the grower manages to obtain an annual crop. Crude cork comes over to America in great bales weighing from 175 to 225 pounds each. The heat to which it is subjected in order to flatten out its curves also drives out most of the insects, such as one would naturally expect to find in bark. As cork is too light to form a cargo of itself, the cork-carrying vessels also bring oil, olives, wine and heavy merchandise of various sorts.

T. W. Kerr, Ladner's, B.C. :—Well pleased with LUMBERMAN. A very valuable and useful paper. ELI page is good.

BAND SAW PRACTICE.

BY J. H. MINER.

WHEN a saw fractures in the centre there may be something wrong besides the filer's work. If a saw is adjusted so that the edges will not crack, and is run too open in the centre, it will, in the course of time, crack from unusual vibration. The centre of the saw forms a convex from over the wheels to an extent that will produce a greater bend in the centre than on the edges. The general result of a saw too open is a fractured edge. Saws that are not kept true will crack in the centre by the friction of such parts against the metal lining of the guide. In nearly all cases of fracture in the centre it will be found that the surface is hardened, and often so hardened that a file will hardly take it. A saw seldom cracks from the side. The crack is most prominent on the outside. Saws that are watched closely and have the surface dressed or ground off with a piece of soft emery, can prevent this. A test with the file will reveal whether such spots are removed. The dressing can be done while the saw is in motion on the mill. To arrest a crack filers differ. Some use a chisel and mark the saw parallel on both sides. Whether or not this is reliable I do not know. I have found out from experience that a crack punched as per the accompanying cut will not extend, and I think this is what is wanted:—



If the crack has extended no deeper than in the illustration, it will wear out. I have run cracks one and one-half for months. Great care must be taken to punch the saw well on both sides. The advantage of this equalateral triangle punching is that the divergence is not confined to one point, but to an angle which prevents the crack extending. Saws often crack in the braze. This is from two causes, viz.: A bad braze or distorted tension. There are many intricate parts about a well stuck braze that causes it to mysteriously crack. The greatest trouble with the saw fracturing in the centre is from bad hammering, and getting a saw full of lumps, which undergo an undue strain over the wheels, similar to the accumulation of gum spots on the wheels. A true saw rightly tensioned runs without tremor in itself. The mill may cause a vibration which it ought not to have, but it does not affect the saw as lumps do. It is not understood that a saw is cracked when it seems lumpy. Often a saw is found perfectly straight and flat as far as the full spots can be divided, but the straight edge shows many full places which the filer does not consider, simply for the reason that he does not believe this work will always better the case.

STEAM FOR THE SAWMILL.

STEAM in most sawmill plants, whether they be large or small, is an important question. On account of the nature of the fuel, which is, and always will be, green sawdust, its generation is of no small matter. The question first to be considered is sufficient boiler capacity, which in the average mill cutting lumber, lath and shingles, can be figured as follows: With two flue boilers, twenty-two square feet of heating surface for every thousand feet of lumber cut in a day of eleven hours. With tubular boilers it requires more, or thirty-four feet for the same amount of work. These figures are based on using the ordinary slide valve engines with steam feed edgers, trimmers, shingle mill, etc. The smokestack area should be one-third greater than the total combined flue area of all the boilers, and ninety to one hundred feet high. Any higher than that is useless, for it will not increase the draft to any perceptible extent. Where there is sufficient amount of sawdust when fed with conveyors to supply all the boilers the grates should be five feet long and placed twenty inches from the bottom of the boiler. It is immaterial whether they are set level or inclining. Ten inches back of the grates start the bridge wall, build it up to within ten inches of the boiler inclining at an angle of

forty-five degrees. Do not leave a large combustion chamber back of the bridge wall. You are not burning coal but sawdust, so fill it up to twelve inches or so from the bottom of the boiler. Have the return large and free, with doors to remove the ashes as they accumulate, for steam can never be made where the return space is filled with ashes to within a few inches of the boiler, as is often seen obstructing the free passage of air.

Feed the sawdust a little forward of the centre of the grates, for the draft has a tendency to draw it back. See that the fires are regulated properly with the feed slides in the conveyor, so that the proper amount is fed through, as it burns away on the grates below. Never allow the fires to get too high or too low. Drill peek holes one inch in diameter through the front, and by looking through you can look in, if the fire shows a nice bright color it is properly supplied and the heat will be intense almost to the point of melting the iron. But if darkish smoking or throwing many sparks, you can be sure the foreman has been negligent in feeding too slow or too fast, which will depress the steam as nothing else will. In the smaller mills, where slabs entirely are used for fuel, the grates should not be over three feet long, with the bridge wall built up two feet back of the grates. This will give a large fire room, the air passing up through the grates at the front thence back through the fuel, giving as quick a combustion for slabs as it is possible to make.

Never use eight foot grates, for it is an utter impossibility to keep them covered with fuel and you will never have steam with cold air passing through the grates. The most successful as well as economical way, barring first cost, for complete plants having sawmill, planing mill, kilns, etc., is to have one main boiler house placed near the sawmill. For there they must get their largest supply of fuel. There conduct the steam through pipes to the planing mill, etc., which can be very cheaply done by conveying the pipe overhead on posts placed twenty or twenty-five feet apart as follows: Drive two piles eight or ten inches apart, flatten the insides to fit the post, which is placed between them and two strong bolts passed through. Nail a cross piece on the post where you want the pipe and properly brace.

The box is made by spiking together two by twelve breaking joints. When the pipe is laid, and raised two inches from the bottom of the box, fill up and pack well around the pipe a mixture made of slacked lime and sawdust (made into a mortar as you would for plastering), which is a good non-conductor free from the danger of fire and at a very low cost. A pipe thus treated condenses but very little steam.

Blow the shavings through metallic pipe from the planing mill to the shaving vault in front of the boilers. By having the boilers arranged in batteries having one battery of just sufficient capacity to run the planing mill at such times as the sawmill may not be running, the expense for steam will be at the minimum.

Use a cyclone dust extractor set on the roof directly over the sawdust conveyor and spout down into it, and make a connecting branch to the main shaving pipe. At the connection have a valve or switch connected with ropes running down to the fire room. Then the shavings can be at will either run into the shaving vaults to be used for raising steam running kilns nights, etc., or switched off through cyclone and mixed with the sawdust feeding to the boilers, as the condition of steam requires. And it will astonish you how quick the boilers will respond with more steam when a little shavings are mixed with the sawdust feeding in.

Arched ovens such as are used in tanneries for burning spent tan bark built on in front of the boilers are cleaner with less danger of fire, and will give better results than the usual way of feeding with spouts between the boilers. As the brickwork soon gets red hot instantly igniting the sawdust as it strikes the grates, combustion is consequently more positive and complete.

BALES OF SAWDUST.

A CURIOUS and profitable business has grown up in the Maine woods about the sawmills in the utilizing of the immense quantities of sawdust by compression. Thousands of tons of sawdust are pressed into compact blocks and bales, and in this form is finding a ready market for kindling and fuel in eastern cities.

VIEWS AND INTERVIEWS.

Spools and
Shoe Pegs.

Large quantities of birch timber are consumed annually in the manufacture of spools and shoe pegs. Both articles rank among the smallest of our small wares, but, like the common pin, they find a large consumption everywhere. The larger quantities of these articles are manufactured in Maine and to some extent in the province of New Brunswick, for it is in these parts that birch is principally found. The white birch logs are sawn into strips four feet long, and from one to two inches long and of the same thickness. These strips are sent to the spool factories where they are quickly worked into spools by most ingenious labor-saving machinery. The strips of white birch are fed into one machine, and they are not touched, in fact they are hardly seen again, until the spools, all finished for market except polishing, drop out by the bushel from another machine several rods away from where the strips started in. The spools get their gloss by being rapidly revolved in barrels by machinery, the polishing resulting from the contact of the spools in the barrel. Maple is used largely in the manufacture of shoe-pegs, although white birch is used at some factories. Shoe-pegs are sold by the bushel, and are worth all the way from three shillings to one dollar a bushel, according to quality. More than \$150,000 was received by Maine shoe-peg factories last year for goods.

Present-Day
Progress.

With the progress that is made in mechanical arts, and none the less so in every department of life, it is not surprising to find improvements in methods of transportation equally far forward. In fact, when we cast our memories back to the days of the stage coach in our own country, or travel in imagination to suffering Russia, where only the most primitive methods of locomotion are known—one actual cause of the present terrible distress—and then study the railway and canal systems of this continent to-day, we are inclined to think that nowhere else has progress been more advanced than in the one line of transportation. Coming to an item of detail affecting the lumbering industries, we are just now witnessing an important change of methods in this respect. Only a few years ago, within the memory of most lumbermen, the man who would suggest railroading logs from the pineries to the mills would have been looked upon as verging on insanity. To-day the business in Michigan is so enormous that the capacity of the Michigan Central railroad has been overtaxed to such an extent that the company has been obliged to hire locomotives from other roads to meet the demands made on it on the Mackinac division, and consequently an order for twenty locomotives given a short time since, has been changed to thirty. The man who haunts the corner grocery and out of the volubility of his own emptiness talks as if he knew everything, is apt to find himself sadly left as he gets out into the light. Verily, it doth not yet appear what we shall know.

Machines
Well Placed.

A machine may not be able to speak, but a writer in *The Tradesman* is of the opinion, evidently, that it has a choice of company, and knows the good from the bad. "Almost any machine," he says, "will behave better in a good place than if hidden in a slush-hole under piles of dirt and rubbish. The feed cones of a certain wood-working machine were located in a little 'dog-hole' underneath the engine-room floor, and a man to get at them had to walk in on his back, and crawl out on his belly. The cones gave all manner of trouble. When it seemed as if nothing else could possibly happen then the belt would let go or turn inside out against the guide forks, or the lacing would give out, or a cone get loose, just for variety. It kept the mechanic busy about all the time looking after these cones. Finally, new arrangements were made, and a little room built expressly for these cones. The room had a nice skylight and a bricked-up pit wherein the cones were in full view. A railing was built around the pit, a nice staircase led thereto, and these same old cones and same old belt ran six whole months without breaking or giving the least trouble. I might get up a moral that clutches and speed

cones work the best when they are placed in good wholesome locations, but the 'live' millwright has found that out long ago, and he doesn't build low, cramped-up wheel-rooms and mills any more—if he can prevail on the owner to let the millwright have his own way, the better way. He tries to make plenty of room for twice as much machinery as he ever expects to put into the mill, and thus he keeps all the friction clutches 'good natured' and the workmen ditto."

More
Strange "Finds."

We talk of the nine lives of a cat, and some wonderful stories are told of feline endurance. A few days ago the Toronto press told of a cat that had been discovered in the drain box of a sewer, where it had been embedded beneath several feet of earth for not less than three weeks without food or air. When set free, however, it did not take pussy long to recover her usual vivacity and playfulness. The following stories from London Tid-Bits tell of two specimens of the toad and frog species whose ability to exist on less than Dr. Tanner's diet leaves the family cat a long way behind in the race. What is printed by our English contemporary supplements nicely the stories printed in the LUMBERMAN at different times telling of the curiosities found inside of trees: "In some strangely shaped fossil trees accidentally dug out of a stone quarry were found treasured up the petrified-looking bodies of reptiles, birds, bats and such small deer—which had thus been honored by preservation in massive mausoleums. When cutting open the trunk of an elm a live toad was found lying concealed about three feet from the root. It skipped away very alertly, yet, we are told, no tree was more sound, nor could any aperture be discovered through which the little captive could have penetrated. It is supposed that the spawn from which it originated must have accidentally been treasured up in the tree from the first moment of its vegetation. In like manner, while some men were squaring the trunk of an oak they had just felled, they suddenly started back in astonishment on seeing a hideous frog, about the size of a large pullet's egg, encrusted in the tree four inches in from the bark and fifteen feet from the root. Though mangled by the axe, the creature still moved, but it appeared old, thin and decrepit. As in other cases, a careful examination revealed no entrance to its prison house."

The
Lumber Scalper.

Scalping and scamping are not unknown in different trades. We do not know but that it is a trick of all trades to scamp in work so that the loss in profits, that is often a result of present-day competition, may in a measure be leveled up. Perhaps the term "scamping" is more properly applicable to these methods than "scalping," though both transactions are none the less dishonest. They lack even the extenuating element that led to the suggestion in early English days to remove a penny's worth of silver from the current English shilling and still call it a shilling. The suggestion then was made in ignorance of the true principles of political economy, which requires that value be represented by value, and a more thorough knowledge of the science made the blunder clear. It will hardly be claimed, however, that the contractor who makes his profits out of spurious material and incompetent workmanship, when the opposite is called for in his specifications, does so out of the simplicity of his heart, believing all the time that logically and morally he is doing the correct thing. A lumber contemporary has taken the term "scalping" and applied it specifically to certain transactions in lumber. Appeal is made to the Century dictionary for an official interpretation of "scalping," and is given thus:—"Scalper, n.—One who scalps, or takes a scalp; one who sells at less than official or recognized rates; specifically, a dealer in railway and other tickets who shares his profits with his customer, or who purchases unused tickets and coupons at cheap rates, and sells them at a slight advance, but for less than the official price." The Timberman, the journal referred to, then goes on to say:—"There are some things in the Century definitions that are suggestive of the lumber scalper—he not infrequently takes the scalp of his consignor, and he has to sell at less than the recognized rate—but it is assumed that the scalper first buys, and

then sells at a slight advance. That is not the way with the lumber member of the genus. He never buys. If he would the objection to him would be largely removed, for the little dealer who has happened to buy cheap and is content to sell at a slight advance, even if under the market, is merely a nuisance to be endured with as much equanimity as possible. The lumber scalper first sells—something he hasn't got and often doesn't know where to get—and then tries to buy at a low enough price so there will be margin enough to pay his postage, boarding house and laundry bills—assuming that he ever pays them. He has no investment, no office, no money (and needs none), takes no risk (the seller does that), and is merely a demoralizing element in a reputable business without any decent profit to himself or to any one else, for the man he sells to usually is cheated on grades and measure, and the man he buys from can whistle for his pay if anything goes wrong—or the scalper goes wrong, which he does in numerous instances. Poverty is no crime, but it should not seek credit under the pretence of wealth. The lumber scalper is the clerk or inspector who tires of earning an honest living and turns confidence man. He may think he has honest intentions, but he is on the wrong basis. If the Timberman were to make a dictionary it would define "scalper," in the lumber sense, about as follows: Scalper, n.—One who sells to a sucker lumber he doesn't own, and then finds another sucker to trust him with the goods."

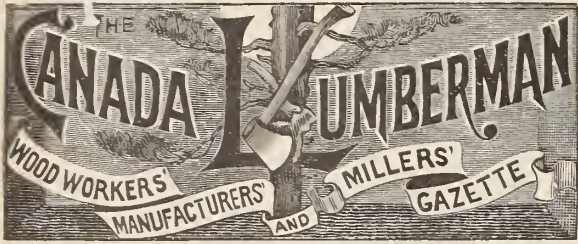
BITS OF EXPERIENCE.

HAVING occasion to grind a saw to-day, says a writer in the Sawmill Gazette, the thought came: "What a difference from the way I filed the first saw I ever tried to sharpen." I nearly wrote "put in order," but that would not fit, for it was in anything but order when I presented it for inspection. When the writer was fifteen years old he was employed by a carpenter to assist in rebuilding an old house, with the understanding that if he proved "docile," or in other words, showed any hopes of becoming a good workman, he should have steady work and be advanced as his ability would warrant. But for quite a while he evidently had a much greater capacity for finding iron in the old material being worked over than anything else, and it was a very poor day when the saw did not require filing at least twice, while the time put in over the grindstone crank, to have the hand-axe and chisels ground, makes his back ache to even think of.

The old gentleman, Mr. S., had not forgotten that he was once a boy himself, and was very patient. But one day he concluded that possibly it would lessen the number of nails found by the saw if the one using it had to keep it in order, more especially as it was but a few minutes after filing when the saw was brought up with the points all gone, having had a full stroke, and very likely with a "rider," across a ten-penny nail. So, going to his chest, he procured the saw-set, a flat file and a three-cornered file: but instead of proceeding to file the saw he gave them to me and said: "You are pretty good at dulling, now let's see how you are at sharpening." "I don't know how to file a saw." "Well, I guess you do not; but you will never be able to tell until you try, and you can't learn any younger than you are now," and turned to his own work, leaving me with the tools, which I concluded to use.

I set the saw first, and if the blade had been as hard in temper as many I have seen since, possibly I would have had to re-tooth it; as it was the teeth were reduced in thickness as well as turned pretty well out on the sides of the saw. After setting, the thought came that the flat file was to be used to joint, so it was used vigorously, though with no thought as to whether a saw would work best with a full or hollow front; my recollection is that one was rather on the hollow, if not "holler," which it certainly did when I got at it with the other file, which was pressed well down and pushed and pulled (when the handle did not come off) several times across each notch in the saw, the side filed first getting the most, so when the saw was turned but little was required to bring the teeth to a point.

Thomas Gibson, Wroxeter, Ont.:—We think a great deal of CANADA LUMBERMAN, and from a sawmill's standpoint see nothing to excel it.



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—BY—

ARTHUR G. MORTIMER

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THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

BANK OPINION.

It is doubtful if in any other way the financial situation throughout the country is more clearly and correctly focused than by means of the reports and addresses of our leading bankers, which usually come along about this time of the year.

Sir Donald A. Smith, president, and Mr. E. S. Clouston, general manager, of the Bank of Montreal, each delivered instructive addresses at the annual meeting of this bank, held on June 6. The occasion was the 74th annual meeting of the leading monetary institution of the Dominion. Illustrative not alone of the growth of the business of the bank, but also of the commerce of the country, for the two in this case go hand in hand, the president drew a contrast between the transactions of the bank in its early years, and those of to-day. In 1817 its capital was \$350,000, and as there was no other bank in the country at that time this represented the entire banking capital of Canada, where at present the capital of the banks doing business in Montreal alone is upwards of \$50,000,000. The capital of the Bank of Montreal is now \$12,000,000, with a rest of fifty per cent., or \$6,000,000.

The growth of the commerce of the Dominion during these years, and more particularly the past twenty-five years, is shown in a comparison of the imports and exports of this period, some interesting figures on this line being furnished by Sir Donald. In 1868 the total value of our foreign trade was \$131,027,532. It has not always maintained an easy level, fluctuating more or less at times. The trade returns, however, for the fiscal year, ending April 30, show an extraordinary development as contrasted with the preceding year, the figures of the export trade being, 1891, \$77,452,314, and 1892, \$88,435,793, and this notwithstanding the McKinley Bill. So with the shipping. The month of May just closed shows an inward tonnage in the port of Montreal of 174,000 tons, against 132,615 tons in '91 and 157,000 tons in '90, or 17,000 tons more than in May, '90, which

was the largest previous record. Throughout the entire address President Smith takes a hopeful view of the business situation, believing there are great things ahead for this Dominion.

Hardly running in parallel lines with this view is the opinion expressed by General Manager Clouston, but his remarks are none the less wholesome, even though in contrast with those of the president, decidedly pessimistic. Better times were expected when it was known beyond peradventure that the country had been favored with an exceptionally fine harvest, but Mr. Clouston says "we have experienced as dull, if not a duller, year than those preceding." The explanation of these hard times is attributed to the fact that farmers used what money was realized from the sale of grain for the payment of obligations due the loan associations, implement manufacturers and others. The residue of grain they have held in hopes of higher prices. "If, however," he says, "as it is supposed, there is still a considerable amount of grain in the farmers' hands, we are undoubtedly on a better and more assured basis, and with anything like a good harvest we may reasonably hope for some improvement in the future." Albeit, conditions would have been improved if the farmers had sold their grain earlier in the season instead of holding for higher prices, which have not been, or seem likely to be, realized, whilst the grain is suffering, in the opinion of those competent to judge, a depreciation of fully twenty per cent. from storage and attendant causes.

The deposits of the bank have increased largely during the year. In fact there has been, and is now, no lack of money in the country, but as Mr. Clouston remarks: "Cheap money is not an unmixed good, and is often a sign, as in the present case, of general distrust, and a widespread and far-reaching inactivity in business." The weak side of business in Canada to-day is the hesitancy exhibited, by those who have the money, to invest it in commercial undertakings. The general manager of the Bank of Toronto touched on the same matter in his annual address when he said: "The most conspicuous feature in the financial situation throughout the world has been the continual accumulation of unemployed money, which has been accompanied by a state of heaviness in general business, and an absence of new outlets for capital." And in this country, the Toronto manager goes on to say, this feature has "markedly characterized the business situation."

The one important article of confidence is what is most required to give healthfulness and tone to the commercial situation.

THE QUESTION OF MARKET CENTRES.

It is contended that if the yard system in lumber is made to supplement the commission man, or buying direct from the mills, that in a short time an undesirable monopoly would be created. Is this so? Doubtless it is a possibility, for concentration of trade in a few hands not unfrequently leads to a combination for the purpose of advancing prices. Almost every branch of trade has experienced the ill effects of these combinations. The grocer has a sugar combine to fight, and the dry goods man a monopoly in cottons or woollens.

The nature of the lumber trade is such that combines on parallel lines to those of other trades is rather problematical. A grocer sells teas, sugars, spices and a score or more of articles the output of distinct and different manufacturers. So with the dealer in dry-goods, and other merchants trading in general commodities. A combine in some particular and leading line of the catalogue is not unworkable.

With the lumberman it is hardly the same. He sells only the one line of goods; there will be different kinds and classes of lumber, but not in anyone of these would a combine be practicable in the sense that it is possible with sugar or cottons. It might be expected, as the trade would resolve itself into fewer hands, that a greater uniformity of price would be the rule and that these prices would be firmer than when everyone is paddling his own canoe. This could not be deemed an unmixed evil. Carried to unreasonable lengths its baneful effects would be as condemnable as those of any other combine. But a union of business men, not to unduly increase prices, but to prevent what is too often ruinous cutting, is a condition to be sought for in every business.

In buying direct from the mills or through the commission man the dealer is but following in some respects the trend of business in other lines. As we pointed out last month, the practice is surrounded with certain risks and drawbacks; yet it is carrying out the principle which in other departments of commerce makes each man a direct importer and saves him money by cutting out the profit of the middleman. The millmen in a good measure encourage this method of business, as they, rightly or wrongly, argue that the profit charged by the wholesaler is a profit which it is better for them to retain and divide up with the dealer who buys direct.

There is this, too, about the custom, that the small millman, who must sell his cut, finds that he is more likely to do business direct than through a jobber. And we have enough millmen to make competition among them about as lively as one would want to see it anywhere.

Perhaps this is turning sound business methods topsy-turvy, and is a violation of every principle of political economy. With the keenness of business to-day the closest regard is not given to the principles of Adam Smith, Bastiat, Walker, Mill, Carey, Perry, or any school of economists, past or present.

EDITORIAL NOTES.

MR. GEORGE HILLIARD, ex-M.P., a well-known lumberman, died at his residence in Peterboro on 23rd June. The deceased was a son of Christopher Hilliard, an officer of the British army, who served under the Duke of Wellington, and was all through the Peninsular war. He was born in Dundas county in 1827 and came to Peterboro in 1847. In 1862 he entered the lumber trade, purchasing a sawmill, which is now within the corporation of the town of Peterboro. He has also been engaged in flour milling and was interested in a woolen mill. He was a Conservative in politics, and in 1878 was elected for the House of Commons, and re-elected in 1882. He declined a third nomination. He was a prominent member of the church. His death is deeply regretted by all who knew him.

THE loggers of British Columbia have for some time been agitating for the appointment of a Government scaler. They had hoped that action would have been taken so that the difficulties, that they allege meet them in their work, would have been escaped this season. But nothing has been done. The complaint, as given by a Vancouver paper, is this: "A man gets a boom of logs ready at some given point. He scales them there as accurately as it is possible to scale them, making due allowance for bark, shaken timber and general waste, according to the accepted rule on the coast. When he comes down here and tells the millmen that he has so many feet to dispose of, if they agree to take the quantity he has for disposal they hire to him the requisite number of boom-chains at a certain figure, according to the regular rates. They also agree to send a steamboat up to the place where the boom is lying to bring it down. After the logs arrive they have, of course, to be scaled by the millscaler, whose estimate of the number of feet in the boom almost invariably turns out to be a good deal lower than that which was made by the owner of the boom. There is no appeal from his estimate, however, and the luckless boom owner is caught, as the phrase goes, in the crack of the door, and must either accept the price of his logs according to the said estimate or let them be where they are, besides paying for the use of the chains and for the towage. In the case of a poor man who has perhaps nothing but his boom to depend on, the result is inevitable. He has to take the price fixed by the millman, in order to pay the charges incurred. He has no recourse in law or otherwise, being entirely in the power of the party of the other part." This is the logger's side of the story, and relief he contends would be found in the government scaler, who could act impartially and fair to both parties. Our Vancouver contemporary adds that most of the millowners are strongly in favor of the appointment of the Government scaler and say that the sooner it is done the better for all parties. As the business is worked now, the millman who wishes to do an honest business is handicapped in the competition with those who practically steal their logs.



"I was just stopping to see your *modus operandi*," explained the visitor in the sawmill. "We ain't got any," apologized the sawyer. "I've been tryin' to git the boss to interduce some of the new-fangled inventions, but he says the old-fashioned way is good enough for him." Happily, however, the census of millowners who are content with the "old-fashioned way" is distressingly small.

* * * *

It cannot be charged that the LUMBERMAN is much given to talking shop. I am sure no advantage is taken in this page to "toot one's horn," and as little in any other part of the paper. Nor am I going to make a break now. But the following talk by a level-headed business man is just good enough to find a place here, and also to be gummed up in some conspicuous place on the desk of every business man. "The employer who conducts his business on the theory that it doesn't pay, and he can't afford to advertise," says this writer, "sets up his judgment in opposition to all the best business men in the world. With a few years' experience in conducting a small business on a few thousand dollars of capital, he assumes to know more than thousands of business men whose hourly transactions aggregate more than his do in a year, and who have made their millions by pursuing a course that he says does not pay. Such talk in the year 1892 may well be considered ridiculous, and it requires more than the average patience to discuss the position of whether advertising pays or not. His complacent self-conceit in assuming that he knows more than the whole business world is laughable, and reminds us of the man who proved the world doesn't revolve by placing a pumpkin on a stump and watching it all night, basing his calculations on the result. If advertising doesn't pay, why is it that the most successful business men believe in it?"

* * * *

In his annual address to the shareholders of the Merchants Bank, Mr. George Hague, the veteran manager, usually directs a part of his remarks to lumber affairs. With agencies widely scattered throughout the Dominion, and through them brought into intimate contact, no doubt, with many prominent lumbermen, his resume of the lumber situation must always command deserving consideration. In his address of a fortnight since Mr. Hague said: "Last year and the year before were years of heavy losses in the lumber trade—no new thing, by the way. Important failures took place both in Canada and England. (In one of these we were interested, but our securities brought us out with only a small loss). The reason of these failures was the common one of parties, on the strength of a good year's trade, plunging into enormous operations far beyond their means to carry through. Production has now been curtailed and most of the goods we are chopping this year will be sold to advantage. Sawn lumber has had an average year, and with the exception of the Toronto building trade, the general demand is good. This line of business requires not only a heavy capital to carry it on successfully, but also an extraordinary degree of vigilance. Multitudes of operations are carried on over widely extended tracts of country, and anything like an easy-going style of conducting business will infallibly lead to ruin. Bankers know this to their cost. Painful as it is to think of labor and money thrown away, it is always too true that it would have been better for the banks and many of their customers if millions of trees that have been cut down and sawn up had been left standing in the woods."

* * * *

If I were writing for a religious newspaper I might refer to June as a month of church courts, for nearly all our religious denominations, and we have not a few of them, hold their annual conferences, synods, assemblies and gatherings, under whatever name one will call them,

at this time of the year. But it is straight business that is talked in this page; and if the churches have been having their innings the business community, as represented in the annual bank meetings, have also been taking a turn at the bat. I have given you in another paragraph on this page some utterances of the manager of the Merchants Bank on the lumber situation. In that case a Montreal banker speaks. I am going to give here the words of Mr. B. E. Walker, manager of the Bank of Commerce, the leading bank in this province. Mr. Walker is a thorough-going business man and he has always manifested an interest in the natural wealth of Canada that gives extra importance to anything he may say touching our agricultural, mineral, or forest resources. Of lumber he says: "We have little that is not favorable to report of the lumber and timber trade. In the Ottawa district the pine timber manufactured was less than three million cubic feet, and adding thereto the stocks held over from previous years on account of the bad state of the trade, referred to in my remarks a year ago, the entire stock held for sale amounted to about five million cubic feet, a quantity considerably less than the yearly product of the seasons 1888-89 and 1889-90. For this there appears to be a satisfactory demand at good prices, so that it may be said that the timber trade has quite recovered its tone, a remarkable and gratifying change in a comparatively short time. In the Parry Sound and North Shore districts very little timber has been made, but there is an increase in the manufacture of deals, the trade in which has also improved considerably. Notwithstanding a slight increase in wages, and more than usual expense in driving owing to the late breaking up of the ice and low water, the bulk of the cut of logs will reach the mills in the Ottawa district, and at a reasonable cost. The cut, with the smaller amount than usual held over, makes a stock exceeding last year about ten per cent., but keeps well below the excessive production of 1887-88. The cut of logs elsewhere also somewhat exceeds that of 1890-91. There has been an excellent market with some advance in prices in the United States, and a partial revival of the trade with South America, apparently indicating a return very soon to the demand which existed before the financial troubles of the last few years. The home consumption is still unsatisfactory because of the decline in building operations. The consumption of pulp wood is increasing very rapidly, and in view of our well nigh inexhaustible supplies of spruce this is a trade which will soon, if it does not already, occupy a place of great importance among the industries of this province."

* * * *

A fortnight ago I spent an interesting half-hour in the office of the Ontario Lumber Co., in the Yonge St. Arcade, chatting with Mr. H. H. Cook. Mr. Cook knows the lumber situation from A to Z. It matters little at what point the interviewer may attack him, his intimate knowledge of conditions, local and general, present and past, renders his response ready and complete. "I consider," said he, "that for some years we have been selling lumber in Canada at altogether too close prices. For my part our company has preferred to hold its lumber rather than part with it at prices offering. Who is most to blame for these conditions perhaps it is difficult to say, and yet there are some greater sinners in this respect than others. The commission men are responsible for their share of the evil. I am liberal in my views of commercial affairs, as you may know, and would not desire to put a bridle on any man's methods of doing business, so long as these are conducted honestly and above board. But when commission men are ready, for the sake of making a few dollars at the time, to sell lumber at a mere trifle above cost, it becomes so demoralizing to legitimate business that I am disposed to kick vigorously. This is what commission men are doing. They have no yard, they have no mill, they have almost nothing at venture in their transactions. They are out to sell lumber for the money that is in it for the day, be that amount ever so small, and beyond that they have no interest in the trade. The millmen, too, are responsible for some part of the decline in prices. I can name good-sized concerns who are among the biggest sinners we have anywhere. They'll be sorry some day. Not by any means have we a tremendous pull on the American lumber market, as

some lumbermen would have us believe. Every year the yellow pine of the south is coming more directly into competition with Canadian pine. This is more particularly the case as the stocks of Michigan pine have become lessened. There can be no doubt that Michigan is fast losing her grip as a pine State. With negro labor they have a great advantage in the south over lumbermen at any other lumber centre. It is not possible for any other class of workmen to compete against them. Why, even the Chinese have no show. And it is not as mere laborers, doing only logging and the rougher work of lumbering, where the negro is used. They are taken into the mill and educated into the work of sawyers and general mill mechanics. And in these positions a very slight increase in wages is given them above what they were getting when engaged in the most primary work of the lumberman. So we must look upon the lumberman of the south as no insignificant competitor with the Canadian lumberman." A mention of tariff matters brought from Mr. Cook the straight reply that as a lumberman he was undoubtedly in favor of free trade. "How a Canadian lumberman can hold any other view I cannot understand. We have seldom had a better advertisement of Canadian lumber interests than that furnished in the attack made on the Bryan free lumber bill by the Northwestern Lumberman. I wrote the editor thanking him for the agitation. Scores of Americans who knew little or nothing of our great lumber resources, to-day realize what immense wealth we possess in the product of the forest. And many of these are now doing business in Canadian lumber."

* * * *

"The Redwood district of California," said an Ottawa gentleman who had made a tour of the lumber districts of that country, "is confined to the counties of Humboldt, Mendocino and Sonoma, only isolated clumps of trees being found outside of this tract. I visited Casper, where the timber handled is chiefly redwood. The streams flowing through the redwoods are small and can only be used for log-driving purposes when there is an abundance of rain during the winter season. As this frequently fails, most of the lumbermen have constructed short tramways from their limits to the mills and bring in the logs by rail instead of by water. A visit to a redwood camp is both novel and interesting to Canadians. We mount one of the trucks of a logging train, which consists of a locomotive and ten trucks, and off we go over a well constructed railway ten miles in length. The train rattles along at a speed that seems somewhat reckless to the uninitiated. Jughandle creek is crossed on a bridge 145 feet high and shortly after Mitchel creek runs beneath us, 100 feet below the level of the rails. The height of these bridges does not add to our sense of security, but we soon leave bridges behind and dashing through cuttings twenty to thirty feet in depth and around curves innumerable, we descend with a gradient of seventy feet to the mile to the level of the creek. There the railway terminates and a gang of fifty loggers are at work among the mighty redwoods. Felling the tree is an important part of the work and good fellers command the highest wages. Two men work on each tree, using saws twelve feet in length. It takes half a day to fell a good sized tree, say from six to eight feet through. The fellers are followed by other sets of men, who cut the tree into suitable lengths, usually from ten to twenty feet. Another gang does the barking. The bark is from three to five inches thick and sometimes even more than that. When barked the logs are rolled upon the skidways by means of jack-screws and then comes the work of hauling to the roll-ways. This is accomplished by a donkey engine with 900 feet of wire rope. We now proceed to the coast, a run of about an hour. Here watch the unloading of the logs and see them go thundering down the chute which conveys them to the mill pond, 100 feet or more to the level of the track. The lumber on leaving the mill is loaded on cars which are hauled to the cliff above by means of a stationary engine. It is then hauled on tramways to the piling ground by mules, which are used to a considerable extent throughout California instead of horses. The lumber is shipped chiefly to San Francisco and Los Angeles. The vessels are loaded by means of a chute lowered from the cliff by means of spars and tackle."

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

CANADIAN logs are commencing to arrive on this side of the border. We may mention as already here a raft of 3,000,000 feet for the Saginaw Lumber and Salt Co., another for the Emery Lumber Co., and a third for Sibley & Bearinger. The two latter were billed for Tawas. John Welch, of Bay City, has contracted to cut 17,000,000 feet of Georgian Bay logs, brought over by the Saginaw Lumber and Salt Co. Hallenbeck & Gilbert have purchased an interest in these logs, and Mr. Gilbert will look after the sawing of them.

BITS OF LUMBER.

The manufacture of spools from birch is developing into quite an industry at Alpena, Mich.

Saginaw lumbermen are after the scalp of the U.S. Senate because of an effort to take \$30,000 from the recommendation of the House Committee to appropriate \$100,000 for the improvements of the Saginaw River.

Dewitt C. Spaulding, the well-known lumberman of Grand Rapids, Mich., has recently sold his tract of hardwood timber lands in Chery Grove township, near Cadillac, to William Gerber and Edward T. Merrill, of Reed City.

In a recent list of millionaires of this country the New York Tribune included twenty names, nearly all lumbermen, from Saginaw. Our lumbermen, out of their extreme modesty, coupled with a characteristic regard for hard facts, say that not more than three in the list could rightly qualify as millionaires.

D. A. Blodgett's pine, which amounts to upwards of 300,000,000 feet, said to be the largest continuous tract of pine now standing in Michigan, is to be cut at the Cummer sawmills in Cadillac. It will require at least eight years to cut this timber, and the monthly pay roll of the men employed therein will be about \$17,000.

No complaint can be made in this section of want of rain. It rained twenty-one days in May, and we have had our full share of the watery element this month. Logs are coming forward in good shape. Both the Tittabawassee Boom Co. and the Muskegon Boom Co. have experienced trouble from the rapidity with which the logs have been reaching them, and high water causing several serious jams of logs.

SAGINAW, Mich., June 22, 1892.

PICA.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE lumber season is now fully opened, and not for some years has the outlook of the Ottawa valley been more cheering. The fears of a month ago that large numbers of logs would be hung up because of the dry weather have in a large measure been removed by recent heavy rains. A number of shantymen who came down from the vicinity of the Madawaska and Kippewa river limits ten days ago are authority for the statement that with the exception of a few "drives" which were placed on some small creeks early in the season, all the logs would be brought to the Chaudiere without any great difficulty.

Mr. J. R. Booth has, counting his logs of last and this year's cut, not less than 1,000,000 pieces now in the water. These are on the Ottawa, Black, Amable du Font, Nesbingsing, Kippewa, Temiscamingue and several lesser streams and lakes. Such of these as will not be driven out from the lesser streams into the Ottawa will be boomed up in deep lakes so that the worm cannot touch or injure the timber, for if the logs are left on the shore in the sun or weeds they will become worm eaten and much injured. Ten band saws are now in operation in Booth's big mill.

A VALUABLE RAFT.

One of the largest rafts that ever floated out of Ottawa is that owned by Mr. Robert Booth. This mass of timber contains 230 cribs; it was made on the Pettewawa river and is the cut of '89-'90 and '90-'91. The average size is 60 feet. This timber was hung up at the Pettewawa last year and the year before, because prices were so low that the owner thought it was a profitless undertaking to put it upon the congested lumber market at Quebec. Things look brighter this year and the whole mass of timber goes to the market having been sold at a good price before it left the boom. This immense raft is in charge of an Indian pilot and nearly all the crew are Indians from Caughnawaga. Mr. Booth met with some trouble on the way down having 80 of his cribs smashed on Lake Duchene by the heavy winds. The raft is being towed by two tugs and is expected to reach Quebec the end of this month. Four more rafts are now on the way down from the Upper Ottawa. One is owned by Barnet and Mackey, another by A. Barnet, of Renfrew, and the other two by Alex. Fraser, of Westmeath. This latter timber was got out on the Coulenge river and like Mr. Booth's timber is of last year's cut. All this timber has been sold at good prices, and is on its way down to be delivered at Quebec, where a large part of it will be shipped for England.

AFTER A MILLMAN.

The case of Brennan and others against Thomas A. Hodgson, of the Elgin St. planing mill, having been decided against the mill, the defendant has given instructions to his solicitor to appeal against the decision of Judge McMahon. The plaintiffs asked for an injunction against the running of the mill on the ground of a nuisance caused by noise, smoke, vibrations, etc., and the decision is that as such charges have been sustained, the injunction is granted with costs against Hodgson. Mr. Hodgson not unnaturally feels somewhat raw over the decision. He has been in business in the one section of the city for seven years, and believes that his mill has been an important factor in building up that part of the city. Now because a certain number of persons allege that the hum of the machinery has become wearisome to them that it is very unfair to him, and a general injury to the locality, to ask that the mill be removed. He says that he will fight them to the bitter end.

INDIFFERENT LENGTHS.

A pulley wheel claimed to be the largest yet cast in Ottawa was shipped the early part of the month to Gillies Bros. sawmill at Braeside. The face of the wheel is five feet wide and the diameter measurement is 12 feet. It weighs between 10 and 12 tons. The wheel, which is a rope pulley, fitted for 20 ropes, is said to be the largest rope pulley so far turned out in the Dominion.

The firm of White, Avery & Co., lumber exporters, has been dissolved by the retirement of F. W. Avery. The new firm will be known as W. G. White & Co.

Buell, Orr, Hurdman & Co., are meeting with compliments on all hands for the neat appearance of their mill and offices, which have recently been freshly painted and generally rejuvenated.

Thackeray's new planing mill is rapidly rising from the ashes of a month ago. It will be an attractive structure.

It is estimated that Bronsons and Weston have cut about 250,000 logs the past winter. The total cut for the four Chaudiere mills is said to be in the neighborhood of 1,260,000 logs.

OTTAWA, Can., June 23, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

ANOTHER object lesson illustrating the immense timbers of this province has been provided in the shipment this month by the B. C. Mills Timber and Trading Company from the Hastings Mill of six cars of the finest and largest timber that has ever left here. As with the shipment the early part of the year these timbers have been destined for Montreal, Que. The shipment consisted of 28 pieces measuring 60,470 feet. On two cars were loaded four sticks 24x30 inches, and 58 feet long; two 8½x10 inches, and 50 feet long; one 24x30 inches, and 54 feet long; two 6x8 inches, and 50 feet long; one 12x21, and 55 feet long. The total measurement on these two cars was 20,289 feet. Two more cars were loaded with two sticks 24x30 inches, and 54 feet long; three 24x24 inches, and 30 feet long; five 12x24 inches, and 40 feet long. The total measurement on these two cars was 20,741 feet. Two other cars carried the three largest sticks, each of which was 36x36 inches, and 60 feet, the total measurement of these three pieces being 19,440 feet.

TORONTO CAPITAL ON THE COAST.

Plans for the incorporation of the Toronto Milling and Manufacturing Co., with headquarters at Victoria, are now well advanced. Main movers in the project are Mr. John White, ex-M.P., and T. J. Hammill, two gentlemen whose names will appear among the provisional directors. The capitalists interested, as the name of the company implies, are principally from Toronto and Barrie, and include H. H. Strathy, John Strathy, John Davidson, Mr. White and Mr. Hammill. The mills will be located, with the homes of the millmen, at the new city of Sidney, Saanich district. The mill grounds include 30 acres of the townsite land, and over 50,000 acres of magnificent timber will be made tributary to this mill. Within six months the first and smaller mill will be completed and ready for business. A second and more imposing mill building will follow with a capacity of 250,000 feet per day, and capable of giving employment to 250 or 300 loggers and millmen. In addition to the Sidney mills, it is understood to be the intention of the Toronto syndicate to erect and equip a sawmill at Alberni. This project is as yet in its incipient stages, however.

COAST CHIPS.

The mill at Moodyville has been shut down for want of vessels to convey its lumber to market.

The Norwegian barque Ursus Minor is about to leave the Brunette sawmill with 500,000 feet of lumber for Sydney, N.S.W.

The Maclaren-Ross Lumber Company will not cut any

lumber at its mill near Westminster this year, on account of the dull state of trade.

The newly-established shingle and sawmill of the Pacific Coast Lumber Co., at New Westminster, is one of the best equipped mills in this province and gives promise of becoming one of its most important and successful lumber concerns. The machinery is from your well-known mill furnish the Wm. Hamilton Manufacturing Co., of Peterboro. Mr. J. G. Scott, who a few years ago was engaged in the lumber business in Toronto is the manager.

The syndicate which purchased the Sayward mill property contemplate the erection of an extensive mill on their timber limits near Seymour Narrows, where they can have every facility for the cheap and speedy handling of lumber. The limits of the syndicate include some of the most heavily timbered land on the island. There is deep water close alongside the proposed mill site, capable of floating ships of the largest size. The locality is in almost every way favorable for the plans of the syndicate, and it is not improbable that a mammoth lumbering establishment may soon be in full operation.

NEW WESTMINSTER, B.C., June 20, 1892.

PERSONAL.

S. S. Cook, lumber, Morrisburg, Ont., is dead.

Matthew Cochrane, planing mill, Dutton, Ont., is dead.

Mr. T. J. Hannum has retired from the position of superintendent of Buell, Orr, Hurdman & Co.'s mills. It is understood he has been succeeded by Mr. T. Kennedy, formerly in charge of the old Skead mills.

Richard Fraser, Sr., one of the first lumbermen to carry on business on the Upper Ottawa, died the early part of June, aged 67, at his residence in the township of Pembroke. He was born in the county of Carleton in 1825.

The death is announced of James Stewart, Jr., nephew of Robert Stewart, lumber merchant, of Guelph, and son of the late Robert Stewart, lumber merchant, Limehouse, Ont. The deceased had lived in Chicago for the past sixteen years.

One of the pioneers of Lethbridge, Alta., is dead, aged seventy-two years. In 1884 he assumed charge of the lumbering interests of the Northwestern Coal and Navigation Co. He was a highly respected citizen and at one time a member of the local legislature.

Mr. Alexander Maclaren, Buckingham, Que., has been elected president, and Mr. David Maclaren, Ottawa, Ont., a director, of the Coe Hill Mining Co., of Belleville. This is one of the largest and wealthiest mining companies in America. The Messrs. Maclaren are the well-known eastern lumbermen, sons of the late James Maclaren.

Mr. E. S. Sheppard, of Minncapolis, Man., has taken up his residence at Hannaford, on the American side of the Rainy River at the mouth of the Big American River in Minnesota. He is at present busily engaged estimating pine timber that he intends to cut into logs and bring to Rat Portage for market unless the new railroads that are heading for Hannaford get through in time to build mills to cut them on the Minnesota side.

Mr. George Cochrane, of Peterboro, Ont., has received offers from two large lumbering firms—the Victoria Harbor Lumber Co. and Mr. John Walsh, Collin's Inlet, wishing to secure his services for measuring logs on Georgian Bay; one for a three month's engagement, and the other to measure 3,500,000 feet of lumber. Owing to other engagements Mr. Cochrane is compelled to decline these lucrative offers. Evidently Mr. Cochrane's abilities are known.

A sad surprise to the trade was the announcement the early part of June of the death of William G. Thomas, at Norwalk, Conn. Mr. Thomas was one of the pioneers in the Albany lumber district, having founded the house of Hill, Thomas & Co., continuing afterward as Thomas & Hyatt, and W. G. Thomas & Co. He was at one time vice-president of the Albany Exchange Bank, and had served as president of the board of lumber dealers. About fifteen years ago he retired from business, and removed to his native place, Norwalk.

A number of prominent Torontonians, on invitation of the Mayor and corporation of the town of Penetanguishene and the Summer Hotel Co., of the town, spent a pleasant three days' outing during the past month among the isles of the Georgian Bay. The mayor is Mr. C. Beck, the well-known lumberman, who did not spare himself either in his official or private capacity to make things enjoyable for his visitors. They were shown through the two large mills owned by Mr. Beck, and which are fitted up with every equipment for the carrying on of a large trade. One hundred and fifty men are employed in the mills besides a large number in the camps, tugs and docks of the company. A visit was also made to the beautiful residence of Mr. Beck, where the party were delightfully entertained by Mrs. Beck and daughters.

THE NEWS.

ONTARIO.

—G. Heimbacker, sawmill, Hanover, has sold out.
 —J. W. Agret, lumber dealer, Ottawa, has assigned.
 —W. S. Ramsay & Co., sawmill, Sutton, have assigned.
 —J. D. Hough, sawmill, Mount St. Louis, has assigned.
 —R. Kennedy's new shingle mill, Hobarth, Ont., is about ready for operation.

—Log towing has commenced from the north shore of the Georgian Bay to Bay City and Saginaw, Mich.

—Harris & Campbell, cabinet makers, Ottawa, are seeking a compromise of fifty cents in the dollar upon liabilities of about \$25,000.

—The drive of J. & B. Green's dimension timber, on the Gordon River, has been abandoned because of low condition of the water.

—One of the Rathbun Co.'s drives is being transferred from the water to the railroad at Calabogie. There are from 800 to 1,000 carloads in it.

—Heavy rains in the vicinity of Wallaceburg have caused much anxiety to millowners and lumbermen. Large jams of logs on the Sydenham River have been brought down.

—Lumber failures to some extent continue in Toronto. Churchill & Hudson have been compelled to consult their creditors. Allan C. Thompson has assigned. Both estates are small.

—The Rathbun Co., of Deseronto, who have been operating a sash, door and blind factory at Lowville, N.Y., for some years, will close the same this month, and will withdraw from that town.

—A stock of logs, aggregating 500,000 feet, belonging to the Waggon Works Co., Chatham, were swept away by recent floods on the Thames. Lumber dealers generally along the river have been put to considerable trouble by the high water.

—Emile Leger, a well-known young Ottawa lumberman, who has been employed in the woods at Marinette, Wis., for some three years past, has returned home. He says there are quite a few Canadians there, and shanty wages range from \$35 to \$40 a month.

—The Rathbun Co., of Deseronto, are likely to lease the steam sawmill belonging to the estate of N. E. Cornier, of Aylmer, Que. As employment will be given to about 100 hands, Aylmer people are hoping that the negotiations may be successfully carried through.

—Last year the Gilmour Co. obtained possession of the waters below Buckhorn, Hall's Bridge, two hours before the Dickson Co. This year the Dickson Co. has the advantage. Already three of their drives have gone through and three more are close behind. According to custom the firm first getting possession of the waters have the right to use them. Consequently the Gilmour Co. have to wait till the Dickson Co.'s drive is through, and as this will take about four weeks, the Gilmour Co. have removed their forces for the present.

—A local correspondent from Spanish River says: "The drive of logs and square timber on the Spanish River is progressing favorably. About some 5,000,000 feet will be left on the Sable River unless we get more rain. Mr. Loughrin, of Mattawa, has the driving of some four or five concerns' logs on the upper part of the Spanish River. It is reported he is getting the different drives out very fast. About 140 or 150 million feet of logs and timber will be sorted out through the boom at the mouth of the river this season. The Sable and Spanish River Boom and Slide Co. raft out the different logs here and charge at the rate of two cents a-piece for logs and eight cents a-piece for square timber. The company employ about thirty-five men at this work, who raft out about 10,000 pieces a day."

—The lumbermen carrying on operations on the borders of Lake Simcoe, who are accustomed to take tows of sawlogs across the lake, have suffered much pecuniary damage by the breaking up of the pocket booms and the scattering of the logs along the lake shore. They appear to think that many of these logs are unlawfully appropriated by owners and others living near the shore. Mickle, Dymont and Co. have lately brought a number of actions in the courts against various parties, whom they conceive have wrongfully appropriated their logs. Eight or nine of these cases were heard before his honor Judge Dartnell at the last division court in Beaverton. In most of the cases it was shown that the logs were merely pulled up and placed aside in order to get access to the water. The judge held that the parties had a perfect right to do so; that there was no conversion, and non-suited the plaintiffs. In another case judgment was given for fifty cents against a defendant who had sawn up a log into firewood. In another

the defendant admitted he had sawn into lumber five logs and was willing to pay for them. His honor observed that while he sympathized with the plaintiffs in their losses, they were not altogether free from blame. They had let the contract for towage, and had neglected and refrained to insist upon the contractor fulfilling the terms of his contract by collecting the logs scattered around the lake. He intimated that in any clear case he would give heavy damages, but pointed out that the taking of sawlogs wrongfully was a crime punishable with seven years in the penitentiary, and that they might find difficulty in recovering in a civil action until they had first obtained a conviction against the offender, it being the policy of the law that the offender should be punished before his estate should be attacked in a civil action. Mickle and Co. are determined to proceed against all offenders, and no doubt the warning given will have a good effect in protecting their property.

QUEBEC.

—Low water in the Quyon Creek will keep logs and pulpwood over till next spring.

—Two hundred hands are employed in the mill of the Ottawa Lumber Co. at Calumet. The company has a contract for 12,000,000 feet of lumber besides their own logs.

—Since the opening of navigation this season 18,680,000 feet of sawn timber has passed through the Lachine Canal. Much of this lumber will be shipped to Europe by steamship. In the transportation to Montreal sixty-five barges were required, and had it been shipped by rail 1,868 cars would have been required.

—The Hon. Mr. Flynn's bill to amend the law respecting Crown lands has passed its final stages. The last opposition amendment made to it, which was one to strike out cedar from the list of merchantable woods to be taken by the lumberman, was rejected on a division of thirty-eight to eleven, and the third reading of the bill was unanimous. Two of the most important speeches in support of the ministerial policy respecting Crown lands were those made by Eastern Township members—Messrs. Chicoyne, of Wolfe, and King, of Megantic. The latter gentleman pointed out that no one suffered by the new bill, and that in reality it was not a question at all of differences between the merchants and the settlers, as some would have us believe, but one of how far the treasury was prepared to go. In Ontario the land was freely given to the settlers, while the pine timber on it remained the property of the Government. A similar law here would greatly simplify matters.

NEW BRUNSWICK AND NOVA SCOTIA.

—Prescott & Gillespie, of Rivert Hebert, N.S., have put 4,000,000 feet of lumber in the river this season, and their men are still at work.

—William McKay, of St. John, N.B., has purchased from Messrs. Burrell, of Truro, 10,000,000 feet of deals, at a cost of about \$80,000. The shipments will be made from Halifax.

—The lumbermen on the Restigouche River, N.B., are striking it happy with their drives. Perhaps without an exception all are now free. George Moffat will have between 4,000,000 and 5,000,000. David Richards estimates that with his cut and what he has bought from others, he will have about 4,000,000, nearly half of which will be cedar. Shives will have about 2,000,000; Alexander will have 2,000,000, most of which, if not all, will be cedar; Mowat about 1,000,000. Unlike the work on the St. John and the Miramichi, the driving on the Restigouche this year was not any more expensive than last season. The jam in the Aroostook is still solid. Men are at work endeavoring to make a break, but there is not much hope of succeeding. C. W. King estimates that ten days ago there were fully 12,000,000 in the jam itself, and there were fully half as much again behind it. Much of the cut in Queen's county is hung up. Mr. Hetherington is having a hard time, and the prospects are that he will have to leave the greater part of the drive behind. Mr. King has got out some of his hemlock, but his cedar is holding back hard. The other operators are experiencing the same trouble.

BRITISH COLUMBIA.

—A new boiler and engine has been placed in position in the shingle mill of Frank Lickman, Chilliwack.

—The Burnahy Lake Lumbering Co. have been doing some big work, having put into the lake 37,000 feet of lumber in five hours.

—Victoria has a lumberman's association with W. Chambers, president; D. F. Adams, vice-president; Ewen Morrison, secretary. A provincial organization is contemplated.

MANITOBA AND THE NORTHWEST.

—The Moore & Macdowell Lumber Co., of Prince Albert, will ship 50,000 feet of lumber to Battleford per steamer Northwest on her first trip there.

—Murray & McDiarmid, builders, Winnipeg, have dissolved. G. W. Murray will continue the planing mill and James McDiarmid will continue in the building and contracting.



FIRES.

J. & A. Carson, lumber dealers, Pictou, N.S., are burned out.

W. J. Fowlds & Son, lumber, Hastings, Ont., burned out—insured.

George Graham's sawmill at Kimberly, Ont., was burned on the 8th ult.

The car works at Deseronto, Ont., were damaged by fire to the extent of \$20,000 on the 14th ult. Largely insured.

F. Richardson, lumber, etc., Ingersoll, Ont., was damaged by fire; insured.

The sawmill of A. Tait, Orillia, Ont., was burned two weeks ago. It will be rebuilt at once.

The Dickson Co., of Peterboro, Ont., lost about 30,000 feet of lumber by fire at Lakefield a fortnight ago; fully insured.

Hale & Murchell's lumber mill at Fredricton, N.B., burned; loss \$45,000, insurance \$15,000. It is doubtful if the mill will be rebuilt.

Duncan's new sawmill at New Methlakahtla, B.C., together with cuts and prepared material for 20,000 salmon cases, and a stock of lumber is a total loss from fire. Aggregated loss over \$30,000.

CASUALTIES.

Robert Scratch lost a part of two fingers on the buzz planer in McCaffrey's planing mill, Huntsville, Ont.

David Galbraith, who owns and operates a sawmill at Stoke, Que., is missing. It is feared he is drowned.

John Haystead had his index finger broken in three places while at work in Beatty's mills, Parry Sound, Ont.

James McCormack, an employee of Gilmour & Highson, near Chelsea, Ont., was drowned while booming logs.

William Mitchell, aged twenty, while working on a drive of sawlogs at Uphill, Ont., fell into the river and was drowned.

A thumb and two fingers were taken off the hand of David Mahood, of Dick's mills, Fordwich, Ont., by a circular saw.

Neil Bell, of Collingwood, Ont., while driving a load of lumber, fell forward and was badly kicked by one of his mules.

A youth named Bendall, an employee of the Brunette Sawmills Co., B.C., was drowned while fishing on the saw logs below the mill.

Norman McDougall, foreman of Haslam logging camp, on Johnston Street, B.C., is a sufferer from injuries received whilst engaged at his work.

James Watt, an employee in the sawmill at Monkton, Ont., died a week ago from the effect of a severe cut at the knee-joint from an edging saw.

Oliver Belanger, a log driver for Thompson & Cleary, an American lumber firm, was drowned while getting out logs on the Sturgeon River, Ont.

The body of an unknown man was found in the water near Cook's mill, Spanish River, Ont., a few weeks ago. He is thought to have been murdered.

Mr. Richard Marshall, employed in Toronto Lime Co.'s sawmill at Limehouse, Ont., recently had his right leg badly fractured below the knee by being caught in a belt.

A farmer named William Morris, of Mulgrave, Ont., was crushed under a load of lumber, which he had been driving up the Gatineau. He died a few days later from his injuries.

While working in Pare's sawmill, Essex Co., Ont., Joseph Anderson, about twenty years old, caught his foot and was thrown on a circular saw. Death was instantaneous, as the body was cut in two.

While Mr. Louis Lamarche, of Hull, Ont., was at work removing a load of plank from a truck, a couple of heavy deals fell, striking him on the body and legs. His limbs were terribly bruised and he has lost the entire use of them.

Mr. Richard C. Williams, manager of the Ideal factory, St. Thomas, Ont., was passing a planer in the factory when a small square piece of wood, which caught in the circular saw, flew up, the corner striking him in the right eye, fracturing or crushing the eyeball. Dr. Ryerson, of Toronto, removed the injured optic.

Minard A. Keith, foreman in Dunn's mill, at Grand Bay, N.B., was picking up a poker just as a flash of lightning came. The poker was struck by the current and the man was rendered senseless. Both his arms are paralyzed. A number of telegraph poles were shivered by the lightning in that vicinity at the same time.

TRADE REVIEW.

Office of CANADA LUMBERMAN, June 30, 1892.

THE GENERAL SURVEY.

LUMBER business in Canada, both in city and country, is slow. No one looks for a turn in the city for some time. Fortunately no local failures of any moment have occurred during the month, and it may be that the "weeding out" is now well-nigh completed. No one is losing heart over the situation. It is an old saw that all things come to those who wait, and no doubt whatever the time is drawing nearer when the turn will have come, and a profitable lumber business be done in this city. It is being said that the loan societies are the only ones who are making money, or at least putting themselves in shape to make money, out of present conditions.

Hope was entertained that a considerable trade would have been done in the country this spring and summer, but reports tell of dealers buying exceedingly cautiously. That farmers have had other outlets for their money, notwithstanding the large harvest, and a great deal of grain still remains unmarketed, accounts we believe, as the general manager of the Bank of Montreal has remarked, for the quietness in country districts. Another good harvest and better prices for grain will help everyone.

Canadian trade with the United States is brisk, and a large quantity of our lumber will find its way across the border this season. The scarcity of white pine lumber in the States will necessarily have a tendency to keep prices for our lumber firm.

We have had rain enough and to spare in many places, and with few exceptions, both along the Ottawa and in the Georgian Bay districts, the drives are reaching their objective points in safety. Mills are busy and labor matters running smoothly. In the Maritime provinces and Quebec no unusual activity prevails. The British market is dull, and this means much to both these territories. Business is good in Manitoba, and British Columbia is holding its own nicely.

NEW BRUNSWICK AND NOVA SCOTIA.

More so than in other parts of the Dominion, we opine, difficulty in getting down the drives is being experienced in New Brunswick. This will reduce the cut below what was expected earlier in the season, while on the other hand it may keep prices more firm. A considerable shingle trade is being developed between these provinces and the States. A recent reduction in rates to shingle shippers at Fredricton to seventeen cents per roo pounds to Boston is having a salutary effect on this industry, enabling manufacturers here to compete successfully with places in the province shipping by vessel. The larger lumber trade, which looks to Great Britain for its outlet, is naturally unfavorably affected by the depression in that market.

BRITISH COLUMBIA.

"Improving" is the report that may be given of lumber matters in this province. Activity is notable around the mills, and new mills are being planned, which denotes development, and confidence in the future. The trade are working harmoniously and an evenness of prices is on the whole being maintained. There is talk of a lumberman's association for the province. Home trade is fair. Export trade has not yet got back to its former condition; this is shown by an examination of the shipping records compared with those of a year ago. But matters are mending, more particularly in South America, and it is thought that better times are probable in Australia in the near future.

UNITED STATES.

A remarkable condition of trade for this season of year is the absolute scarcity of white pine throughout the northwest section of country. The reference of course is to dry stocks. From Saginaw to Minneapolis this is the situation. We find the explanation no doubt in the small stocks on hand at the close of last season's work and the wet weather of the present season delaying the cut this season. An American lumber contemporary sums up the situation in these words: "It can be said that dry white pine inch lumber is scarce from Duluth to the seaboard; for our market reports indicate that, though in the eastern markets there is no unusual call

for most kinds of lumber, white pine boards are selling readily. In this market, at a season when there should be such heavy receipts as to cause a mellowness of prices, dealers are actually handicapped in their trade because they cannot procure a sufficiency of dry stock. Generally the market sags considerably by July 1, but this year there is more likely to be an advance than a recession of values." Dealers are undecided as to the wise course to pursue under the circumstances. They hope that prices will decline later on; in the meantime they must have stocks, and the conundrum is to avoid being loaded up when the decline comes.

FOREIGN.

The approaching general election in Great Britain, as is the case with an election in any country, is having an unsettling influence on business, and the lumber business not excepted. Additional to this circumstance is the unrest in the labor market, which portends, where these are not already in operation, further strikes in different parts of the Kingdom. Trade has been dull enough for months, many months, but, with what is here stated, this stagnation is likely to further continue and make the year, where there had been some hopes of a revival, decidedly unprofitable. Canadian freights are reported in a depressed condition. From Montreal to Liverpool 40s. has been quoted; to Bristol 43s. 9d. In the London market prices have not weakened and hardwoods are a trifle firmer. Canadian oaks are scarce; ash and elms from Canada are en route, and from the fact that stocks on this side are exhausted, they will be quickly picked up. Trade in Liverpool is an improvement on that of London, but not much to brag about. Matters are quiet in Scotland. Shipbuilding on the Clyde is slack. Denny, Mott & Dickson, of London, in their monthly circular sum up the situation in these words: "The business of the last month has been marked by great apathy. The continued depression has served to check any tendency to rash speculation, but on the other hand the strain on the resources of small traders must be increasingly severe, as month follows month with a dragging demand and little chance of a living profit on the reduced turnover." Elsewhere there is no important change in the foreign markets. Business is showing an upward tendency in South America, and in time this market will resume a normal condition. A betterment in commerce can hardly be reported from Australia.

TORONTO, ONT.

TORONTO, June 30, 1892.

CAR OR CARGO LOTS.

Table listing lumber prices for car or cargo lots in Toronto, including items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table listing yard quotations for various lumber types, including Mill cull boards and scantling, Shipping cull boards, Scantling and joist, etc.

MONTREAL, QUE.

MONTREAL, June 30, 1892.

Table listing lumber prices for Montreal, including Pine, 1st qual., per M, Pine, 2nd., Pine, shipping culls, etc.

OTTAWA, ONT.

OTTAWA, June 30, 1892.

Table listing Ottawa lumber prices, including Pine, 1st qual., per M, Pine, 2nd., Pine, shipping culls, etc.

ST. JOHN, N.B.

ST. JOHN, June 30, 1892.

Table listing St. John lumber prices, including Spruce deals, Pine, Deal ends, Scantling, etc.

SHINGLES.

Table listing shingle prices, including Spruce No. 1, Pine, etc.

CLAPBOARDS.

Table listing clapboard prices, including Pine, extra, clears, 2nd clears, etc.

FLOORING.

Table listing flooring prices, including 6 in., No. 1, No. 2, etc.

MISCELLANEOUS.

Table listing miscellaneous lumber prices, including Staves, Heading 17 in. per pr, etc.

QUEBEC, QUE.

QUEBEC, June 30, 1892.

WHITE PINE—IN THE RAFT.

Table listing white pine prices in the raft, including For inferior and ordinary according to average, quality, etc., For fair average quality, etc.

RED PINE—IN THE RAFT.

Table listing red pine prices in the raft, including Measured off, according to average and quality, In shipping order, etc.

OAK—MICHIGAN AND OHIO.

Table listing oak prices, including By the dram, according to average and quality, etc.

ELM.

Table listing elm prices, including By the dram, according to average and quality, etc.

ASH.

Table listing ash prices, including 14 inches and up, according to average and quality, etc.

BIRCH.

Table listing birch prices, including 16 inch average, according to average and quality, etc.

TAMARAC.

Table listing tamarac prices, including Square, according to size and quality, Flatted, etc.

STAVES.

Table listing stave prices, including Merchantable Pipe, according to quality and specification, etc.

DEALS.

Table listing deal prices, including Bright, according to mill specification, etc.

BOSTON, MASS.

BOSTON, MASS., June 30.—The logging situation in Maine is serious for want of water to bring down the logs, and of this we hear a good deal at the Hub. On the Maine rivers it is expected that the drives will not be able to bring down more than fifty per cent. of the cut, with this perhaps reduced to thirty per cent. On the Kennebec the lumbermen say they will be able to bring to market about 40,000,000 feet out of a cut of about 125,000,000 feet. Four of the largest sawmills on the Penobscot are idle for want of spruce logs. As a result of this and other conditions prices are holding firm, making sure a fair profit to everybody from logman to dealer. The production of spruce will likely fall from thirty to fifty per cent. short of what it was expected to be, and to make doubly sure of a profitable year there is some talk of the trade organizing to control prices.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing eastern pine prices by cargo or car load, including Nos. 1 and 2, 3, 4, etc.

WESTERN PINE—BY CAR LOAD.

Table listing western pine prices by car load, including Uppers, 1 in., 1 1/2, 2 in., etc.

SPRUCE—BY CARGO.

Table listing spruce prices by cargo, including Scantling and plank, random cargoes, Yard orders, etc.

LATH.

Table listing lath prices, including Spruce by cargo, etc.

SHINGLES.

Table listing shingle prices, including Cedar, sawed, extra, Pine, No. 1, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., June 30.—Trade is fair. Prices are firm. Box grades and better stocks are in good demand.

Table listing lumber prices for Oswego, N.Y. including categories like White Pine, Siding, and Shingles with various grades and prices.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., June 30.—The strike which commenced here the early part of the month has had, as would be expected, an injurious effect upon business.

Table listing lumber prices for Buffalo and Tonawanda, N.Y. including categories like White Pine, Shingles, and Lath.

ALBANY, N.Y.

ALBANY, N.Y., June 30.—The boom with which trade started off a month ago has hardly been maintained throughout the closing weeks of the month.

Table listing lumber prices for Albany, N.Y. including categories like Pine, Shingles, and Lath.

SAGINAW, MICH.

SAGINAW, MICH., June 30.—Lumbermen who are accustomed to weigh conditions carefully, and are not of those who talk without knowledge, do not hesitate to say that not in recent years has the lumber situation been more encouraging.

Table listing lumber prices for Saginaw, Mich. including categories like Finishing Lumber, Siding, and Shingles.

NEW YORK CITY.

NEW YORK, June 30.—Lumber trade is being hindered by a number of labor strikes. The only one directly connected with the wood trades is the cabinet makers, but besides these are the granite workers and the tile pavers.

Table listing lumber prices for New York City including categories like White Pine—Western Grades and Shingles.

PROTECTION TO A LOTTERY.

The Quebec authorities are still fighting the several lotteries that have recently endeavored to do business in that province. The only one that is able to carry on business unmolested is what is known as the Province of Quebec Lottery.

TRADE NOTE.

The Dodge Wood Split Pulley Co., of Toronto, advise us of a veritable "boom" in their rope transmission work among the big mills this season.



Oil as a fuel is coming into more general use with each succeeding year. It gives excellent satisfaction.

Flanged pulleys destroy many good belts. A properly rounded pulley will retain the belt on the centre.

A new form of fastener for woodwork, designed to take the place of nails or screws, has been invented. The device consists of a small plate of corrugated steel sharpened at the bottom, and driven like a nail into the wood across the joint to be fastened.

In polishing, some workmen always oil their work first, but oiling afterwards and then rubbing down is said to be preferable, because when the work is oiled previous to wetting with water, there is a certain amount of oily surface presented to the water.

No one has any business to rivet a belt in the manufacture. If rivets strengthened a belt the rubber belting man would use them. You can cement the plies of a leather belt so tightly that the latter will part anywhere but in the joint.

It is very poor economy to put in an engine of forty-horse power and connect it with the shaft that is to drive all the machinery, by a belt that is not able to transmit over twenty-horse power with a reasonable degree of tension.

The Scientific American, answering a query of the best way to preserve oak posts from rotting when in the ground, says: The cheapest process for preserving posts, and probably the best, is to soak the ends in a nearly saturated solution of sulphate of iron.

Vulcanized rubber belts being unaffected by cold and heat are at the same time exceedingly pliable and elastic, while they offer strong resistance to humidity and chemical influences. A German technical journal says of this: To join narrow belts, both ends, having been put together at a right angle and provided with two rows of holes, are strapped together.

THE LUMBER TRADE ABROAD.

A Saginaw dealer purchased 5,000,000 feet of lumber at Lake Superior points for the eastern markets.

James Graves, at one time a rich sawmill owner, hanged himself in his barn at his home in Gravesville, Wis.

Fire originating in Woods, Jenks & Co.'s planing mill in the lumber district of Cleveland, Ohio, caused about \$200,000 damage.

George Harney, of Woodruff, a prominent lumberman who recently met financial reverses, drowned himself in the Wisconsin river.

Lumber traffic through the "Soo" canal is increasing. In May, 1891, 46,829,000 feet of lumber passed through, and in May, 1892, 68,925,000.

A cargo of mahogany is said to be floating loose on the Atlantic. It was abandoned March 31st last, since which time it has floated thousands of miles.

Hickory as lumber is exceedingly scarce in the United States market. Though now rarely called for, it is more rarely found. White ash of good fibre is generally used as a substitute.

Water shipments from the Saginaw Valley, Mich., have fallen off nearly 11,000,000 feet since the beginning of the season as compared with last year. The railroads are rapidly driving the vessel men out of business.

At Genoa, Ark., a small station on the Cotton Belt Railroad, burglars entered the office of the Bodcaw Lumber Co., opened the safe and carried away \$40,000 worth of the company's stock, \$12,000 worth of notes, and about \$100 in cash.

The famous big trees of North Carolina will be represented in the Forestry Building at Chicago by a colonnade of nine trunks, each twenty-five feet long, which are the gift of Mr. George Vanderbilt from his estate at Biltmore, near Asheville.

On the 16th ult. fire did \$25,000 damage to the mill of W. P. Mershon and Co., north of Saginaw, Mich. It caught in the boiler room and destroyed the cutting mill, dry kiln and 750,000 feet of lumber. It required heroic work to save the docks and the adjoining property. The loss is about half covered by insurance.

Lumber is the largest of any single manufacturing enterprise of the United States. The capital invested in it equals \$750,000,000, and about 3,000,000 people contribute to it their labor and look to it for their support. The manufactured output of the American sawmills alone equals the marvelous annual yield of \$500,000,000 greater than all the gold, silver, copper, lead, iron and coal mines of this great nation.

The Timber Trades Journal, London, Eng., says the houses of Cape Town, Africa, are built of brick, because frame houses soon succumb to the fierce southeasterly winds and the intense heat of the summer. The timber used for the construction of the old Dutch buildings was mostly teak, brought from India. At the present time most of the timber is imported from Sweden and Norway, with considerable pine from Florida. There are no forests worthy of the name within 400 miles of Cape Town, and only one in the entire Cape Colony.

The Manchester Ship Canal Company, England, is making preparations for landing space to accommodate the timber and lumber trade, between Eastham and Rancorn. At Ellsmere port, the terminus of the Shropshire Union canal, vessels drawing 26 feet of water can safely land their cargoes. From this point lumber can be distributed nearly throughout Cheshire, Shropshire, and in many other places in North Wales. At the junction of the river Weaver with the ship canal an enormous water space is being reserved as a timber pond, which will be used for the storage of logs.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WANTED TO BUY

GOOD CANADIAN TIMBER LIMITS AND Georgian Bay saw logs. Address, BEN BIRD-SALL, Whitney Building, Detroit, Mich.

FOR SALE

AT KINGSTON FOUNDRY & MACHINERY Co. (Limited), two Sawmill Engines, cylinders 13 x 21, fly-wheel 9 ft. 6 in. drain, driving pulley 7 ft. x 18 in. face—new—at a bargain.

WORTHINGTON COMPOUND STEAM PUMP FOR SALE.

STEAM CYLINDER 12 AND 18½ INCHES diameter; water cylinder, 10¼ inches; length of stroke, 10 inches; speed, 75 to 125; capacity, 530 to 890 gallons per minute; 2½-inch steam; 3½ exhaust; 8-inch suction; 7-inch discharge; capacity, 4 to 6 good fire streams. This pump supplied the city of Brantford for several years satisfactorily for fire and domestic supply when its population was over 10,000. It is in thorough order and will do equally as good service as when new. For prices and further particulars address

WATEROUS ENGINE WORKS CO.,
Brantford, Canada.

TO RENT.

LARGE PLANING MILL WITH EXCEPTIONAL facilities. Railway switch into premises. Also Flat, with or without power, steam-heated, suitable for all kinds of woodworking. Apply

J. F. CANNIFF,
36 Toronto St., Toronto.

WHITE BIRCH AND SOFT ELM WANTED.

LUMBERMEN HAVING 1-IN. RED BIRCH and 1-in. dry Soft Elm, firsts and seconds, for sale, please communicate with W. W. BROWN, 202 Main Street, Buffalo, N.Y.

WANTED.

SAWERS AND FILERS

TO SEND ME THEIR ADDRESS, AND I will send free instructions on hammering saws that is certified to be worth from \$50 to \$100.

J. H. MINER, Bixio, Miss.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, saw dust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

STEEL RAILS, ETC.

SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways. 20 pair wheels and axles, all in good second-hand condition, very cheap

JOHN J. GARTSHORE,
49 Front Street West,
Toronto.

ENGINE AND PLANER FOR SALE

A 20 TO 25-H.P. LEONARD ENGINE AS GOOD as new, is at present running sawmill, cutting 5,000 to 8,000 per day of ten hours. Also a 24 inch planer and matcher in good order. Would exchange planer for a large engine.

ROBT. BELL, JR.,
Box 35, Hensall, Ont.

WILLIAM FOSTER

Lumber and Commission Merchant

RECEIVER AND FORWARDER OF LUMBER, LATH AND SHINGLES

... CORRESPONDENCE SOLICITED ...

OWEN SOUND, ONT.

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MANUFACTURER OF

Lumber, Lath & Shingles
BRACEBRIDGE, ONT.

C. A. LARKIN
WRITE FOR
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WHOLESALE
TORONTO,
CATALOGUE
ST. M'FR
(AN.)
DISCOUNTS
DOORS & GLAZED WINDOWS

TIMBER BERTH FOR SALE

BERTH NO. 35, CONTAINING 36 SQUARE miles, situated on French River, within about twelve miles of Georgian Bay. There is a large creek and other smaller streams crossing the same which empty into the French, and containing large quantities of Pine Timber. Has never been lumbered on.

Apply to
EXECUTORS OF JOHN BROWN (deceased)
Room No. 8, Drake Building,
Easton, Pa.

SHINGLE MILL FOR SALE

SITUATION:

The Tretheway Falls Shingle Mill is new, built 1891, on the South Branch of the Muskoka River, 5 miles from Bracebridge, near South Falls switch N. & N.W. R.R. With the mill are 5 acres of land, large boarding house, team horses, wagon, sleighs, etc., etc., in fact complete equipment for mill and lumber camp.

MACHINERY:

Consists of Little Giant Luffel Wheel (60 horse power), Boss Shingle Machine, Jointer, Splitter, Drag, Butting and Knot Saws; Endless Chain Burner, Bull Wheel, etc., etc. Building is 30 x 40 heavy frame, with room and shafting placed for second shingle machine. Belting complete and everything in good running order. Circular saw could be added with small expense.

TIMBER:

Is abundant for 50 miles above the mill on the waters of the South Branch—many townships being yet owned by the government—besides thousands of acres of deeded pine, four or five thousand acres of which can be bought immediately. There is also about 400,000 feet of timber at mill which can be purchased with it, so that buyer can commence cutting at once.

The estate must be wound up, and will bear the closest examination. For further information, address

THE CANADA LUMBERMAN,
Toronto, Ont.

NEW & 2ND HAND
ILLUSTRATED CATALOGUE FREE
MACHINERY
H.W. PETRIE
TORONTO, CANADA

NORTH SHORE NAVIGATION CO.
ROYAL MAIL LINE

To Sault Ste. Marie and Georgian Bay Ports

STRS. CITY OF MIDLAND, CITY OF LONDON, FAVORITE AND MANITOU

Running in connection with the G.T.R. and C.P.R., will sail as follows:—

The CITY OF MIDLAND and CITY OF LONDON will leave Collingwood every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same days at 10.30 p.m. after arrival of C.P.R. train from Toronto, connecting at Warton with night train from the south, and calling at intermediate ports to Sault Ste. Marie.

Steamer FAVORITE will leave Collingwood Mondays and Thursdays after arrival of morning trains for Parry Sound, Byng Inlet, French River and Killarney, connecting there with above line of steamers for the "Soo." Returning will make close connection at Midland on Wednesdays and Saturdays with trains for the south and steamer MANITOU for Parry Sound.

Steamer MANITOU will make regular trips from Penetanguishene, connecting with trains from the south, only at Midland on Monday, Wednesday, Thursday and Saturday for Parry Sound, connecting there with Steamer FAVORITE for Byng Inlet, French River and Killarney, where connection is made with above "Soo" line of steamers.

For tickets and further information apply to any agents G.T.R. or C.P.R., or to

C. E. STEPHENS, W. J. SHEPPARD,
Sec.-Treas., Collingwood Manager, Waubaushene

WHEN YOU BUY

SCRIBNER'S LUMBER AND LOG BOOK

You get the best, most complete and useful table book for the measurement of

Lumber and Logs
Ever Published.

Over One Million Sold

Calculations are given showing the number of feet board measure contained in various sizes of logs by DOYLE'S RULE, besides many other tables useful for lumbermen and others.

Mailed to any address on receipt of 35 CENTS.

Address
THE CANADA LUMBERMAN,
Toronto, Ont.

... THE ...

FLINT & PERE MARQUETTE RAILROAD

FROM

Port Huron and Detroit

Is the Short Line to

SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)

MT. PLEASANT, CLARE, REED CITY

BALDWIN, LUDINGTON, MANISTEE

AND

MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company's line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from

NEW YORK BUFFALO MONTREAL TORONTO

to ST. PAUL, DULUTH and Pacific Coast points.

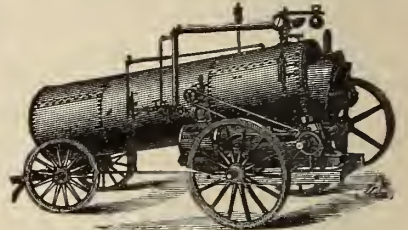
Write either of the undersigned for Folders, which contain Maps, Train Schedules and a great deal of information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., W. F. POTTER,
General Manager. Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

GENERAL OFFICES: - SAGINAW, MICH.

The MONARCH BOILER (Patented) and HERCULES ENGINE



Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.

The 70 horse power can be taken over the roughest roads, or into the forest, and set up as easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

Write for circulars.

ROBB ENGINEERING CO., LTD.

Successors to
A. ROBB & SONS, Amherst Foundry and
Amherst, N.S. Machine Works.

ESTABLISHED OVER 40 YEARS.

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Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.
Every description of Lumbermen's Supplies and Waterproof Clothing.

Rochester Bros.
: : COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

E. STEWART, D.L.S.

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Timber Limits

IN ONTARIO, MANITOBA AND BRITISH COLUMBIA

CORRESPONDENCE SOLICITED

OFFICE, 24 MANNING ARCADE

KING ST. WEST

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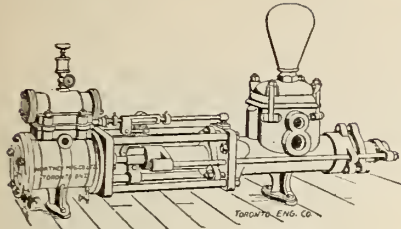
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WHY NOT PLACE YOUR ORDER FOR A . . .
RELIABLE BOILER FEED OR FIRE PUMP.

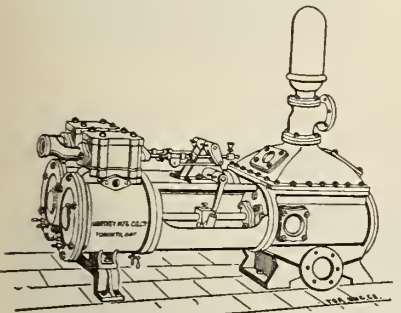
WITH

THE NORTHEY MFG. CO.

TORONTO



PLUNGER BOILER FEED



DUPLEX STEAM PUMP

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m, Shingles, 70m, Lath 30m
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 26 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Circular, 3m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Steam, Circular, 40m
Barrie, Ont.	Barrie	Dymott & Mickle	Saw, Shingle and Heading Mill, Pine, Cedar	
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 16m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	
Eyng Inlet, Ont.	Utterson	Georgian Bay Consol. Lumber Co.	Sawmill, Pine, Hemlock, Birch	Steam, Circular, 20m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mig. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Charlton, J. & T.	Sawmill, Pine, Ash, Birch, Oak, Wholesale	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Lumber, Wholesale and Retail		
London, Ont.	London	Howry, J. W. & Sons	Exp. and dlr. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Gordon, James	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Longford Lumber Co.	Cherry, White Ash, Hardwoods, Wholesale	
Norman, Ont.	Norman	Greensides, W. S.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 4m
Norman, Ont.	Norman	Cameron & Kennedy	Lumber, Wholesale and Retail	
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m.
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Lumber, Wholesale	
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Com. Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Steam and Water, Circular, Portable and Stationery, 10m
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Circular, Gang and Band, 180m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Water, Gang, 150m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakey, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Steam, Circular and Gang, 60m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Steam, Circular, 200m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

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The Montreal Car Wheel Co.

.... MANUFACTURERS OF

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

CORRESPONDENCE SOLICITED

OAK TANNED BELTING

TORONTO
20 FRONT ST EAST
TELEPHONE 475

THE J.C.M^cLAREN BELTING CO MONTREAL

The Dodge Patent System

... OF ...

Rope Transmission of Power

Millmen having trouble with large belts by slipping and loss of power should write us for information on our

Patent Rope Drive System

Thousands of horsepower in use in the largest and most modern mills. We contract for the complete erection of Drives of any power.

10,000 Wood Split Belt Pulleys always in stock for immediate shipment.

DODGE WOOD SPLIT PULLEY CO.

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THE :: AMERICAN :: LUMBER :: YARD

HAMBURG, GERMANY

OFFERS THE BEST FACILITIES FOR YARDING AND SELLING ALL KINDS OF

American Wood Goods

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PINE LUMBER, BILL STUFF, SHINGLES AND LATH

Shipments by Vessel or Rail

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Send for sample of our new SAWMILL BELT

Drummond, McCall & Co.

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SELF-LUBRICATING ANTI-FRICTION METAL

ADAPTED TO EVERY CLASS OF MACHINERY
READILY MELTED AND DOES NOT DE-TERIORATE OR CRYSTALIZE BY RE-MELTING
50 PER CENT. LESS FRICTION THAN OTHER METALS

INCREASES MOTIVE POWER
SAVES 60 PER CENT. IN OIL
DOES NOT HEAT OR CUT
STANDS THE HIGHEST RATE OF SPEED
ITS SPECIFIC GRAVITY IS 11.49
CRUSHING RESISTANCE 112 TONS

Drummond, McCall & Co.

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A. M. COLQUHOUN, REPRESENTATIVE

Montreal, Que.

The Rathbun Company

DESERONTO, ONT.

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And all kinds of House-Finishing Materials

CEDAR OIL for Purging Boilers

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THOSE WISHING TO BUY OR SELL CAN-adian Pine or Spruce Timber Limits will please send particulars to

LEONARD G. LITTLE,

Room 13, Temple Building, Montreal.

Planing Mill for Sale

CONTAINS the latest improved machinery in first-class working order. The factory is 50x110, two and three stories high (would sell without the wood-working machinery if required). Would sell cheap. One-third cash, balance wood and lumber. For further particulars address

"PLANING MILL,"

Care of CANADA LUMBERMAN.

R. H. SMITH CO., LIMITED

ST. CATHARINES, ONT.

Sole Manufacturers

... OF ...

The "SIMONDS"
CIRCULAR SAWS

The "LEADER"
CROSS-CUT SAWS

THE BEST SAWS IN THE WORLD

None Genuine without our Trade Mark

OUR HAND SAWS cannot be excelled for variety, quality, style or finish REPAIRING PROMPTLY ATTENDED TO

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We Manufacture SAWS of every description. Also CUTTING-BOX KNIVES

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LITHOGRAPHERS &
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PETER GERLACH & CO.
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THE ALLIGATOR CHISEL-BIT SAW.
"ALLIGATOR CHISEL-BIT SAWS"
THE CHAMPION STAVE, HEADING AND SHINGLE MACHINES
ICE TOOLS AND MILL SUPPLIES
CLEVELAND, OHIO

USE SPOONERS HONOR BRIGHT
COPPERING
BEST MACHINERY BOX-METAL EXTANT.
CANADIAN MADE & STUMPS THE WORLD.
QUALITIES TO DO ALL YOUR WORK.
HARDWARES ALL SELL IT.
GOOL BEARINGS NO HOT SHOE
EASY AS AN OLD SHOE
GENUINE SAFEGUARD
FOR ENGINEERS
HIGH CLASS
METAL

USE SPOONERS BOX-METAL
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FOR SAW MILLS PLANING MILLS AND
CIRCULAR SAWS. AND
FINE SOLID HEAVY WORK.
OLD MACHINERY MAKES
GOOD AS NEW.
HARDWARE STORES ALL
PERFECT IN THIS WORLD.
TRADE MARK

JORDAN CHAMBERS
W. J. Kramer
DESIGNER &
ENGRAVER
ON WOOD
TORONTO ONT

CAUTION
EACH PLUG OF THE
Myrtle Navy
IS MARKED
T. & B.
IN BRONZE LETTERS
None Other Genuine

INSURANCE—FIRE AND MARINE. MILLS, manufactories and merchandise a specialty. Telephone at my expense.
R. CUNNINGHAM, Guelph.

A. ALLAN, PRESIDENT

J. O. GRAVEL, SECRETARY-TREASURER

F. SCHOLES, MANAGING DIRECTOR

Canadian Rubber Company

OF MONTREAL

CAPITAL \$2,000,000

Sole Agents and Manufacturers of the

Forsyth Patent
Rubber Seamless
(BOSTON BELTING CO.)
Belting For the Dominion of Canada



Our Rubber Belting is Unequalled in America

PATENTEES AND MANUFACTURERS IN CANADA
... OF ...

"Seamless Tube
Hose"

HEAD OFFICE AND FACTORY: MONTREAL - - - J. J. MCGILL, Manager

Western Branch: Cor. Front and Yonge Sts., TORONTO

J. H. WALKER, MANAGER

DONOGH & OLIVER



WHOLESALE DEALERS IN

LUMBER

OFFICE
Nos. 213, 214 and 215
Board of Trade Building
Toronto, Ont.

WHY BAND SAWS BREAK

SIXTEEN REASONS, AND HOW TO AVOID THEM



Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

A book filled with valuable information on the care of band saws. Giving the reasons for breaking; analyzing each reason; giving instructions to dispense with the causes as laid down in each reason; and full details on filing and brazing. The proper styles of hammers to use are illustrated and described, and views of blades showing the blows of the different styles of hammers form an important part of the illustrations. Improper and unequal tension are then treated, and the manner of properly setting irregular teeth is described. In connection with the treatise is a history of the invention, manufacture and use of the saw from its origin to the present time. The work in whole makes an accumulation of information such as has never before been published.

The book is printed on fine paper, good clear type, and is handsomely and substantially bound in cloth. It will be sent to any address on receipt of the price, ONE DOLLAR.

Address— CANADA LUMBERMAN, Toronto, Ont.

TELEPHONES NO ROYALTY NO DELAYS
FOR PUBLIC AND PRIVATE LINES NO MISTAKES
ALL INSTRUMENTS SOLD OUTRIGHT ESTIMATES CAREFULLY MADE FOR TELEPHONE OUTFITS
C. A. MARTIN & CO., 765 Craig St., MONTREAL NO RENTAL FEES

J. W. MAITLAND — H. RIXON



J. G. AINSILE — W. STODART

MAITLAND, RIXON & CO.

OWEN SOUND, ONT.

Saw Millers and Lumber Dealers

All kinds of Building Material kept in stock

WE MAKE A ... SPECIALTY OF LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK

Quotations furnished on application

Napanee Cement Works

MANUFACTURERS OF

HYDRAULIC CEMENT

Particularly adapted for Dams, Smoke Stacks, Foundations, Culverts, Cisterns, Cellars, etc.

Endorsed by Leading Railways and Contractors

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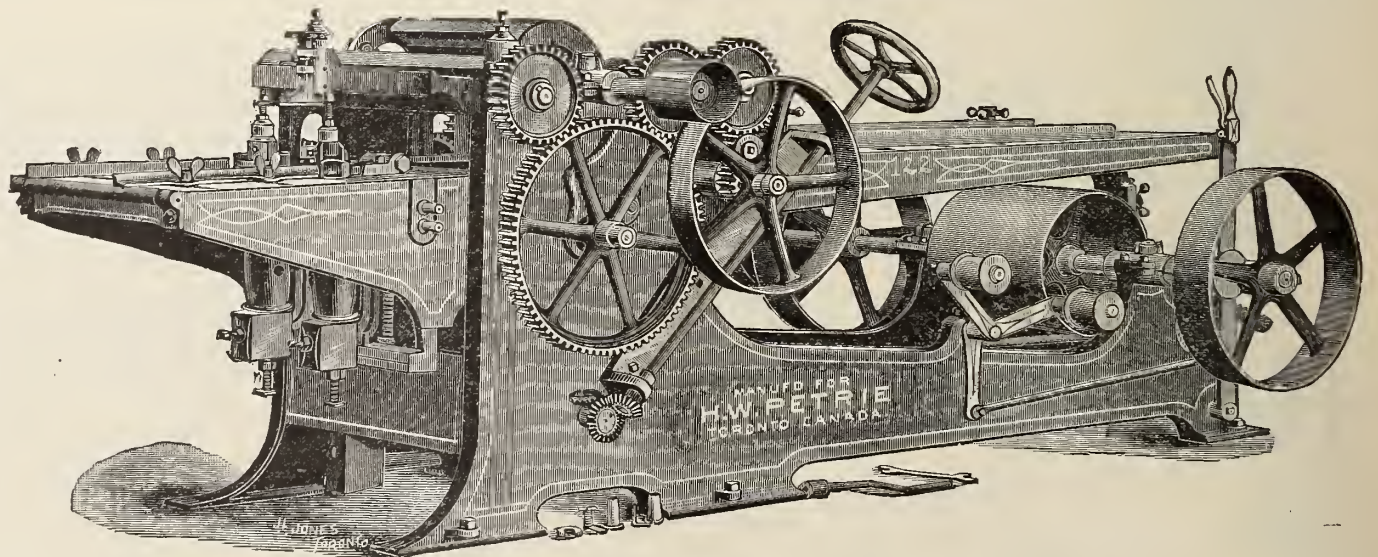
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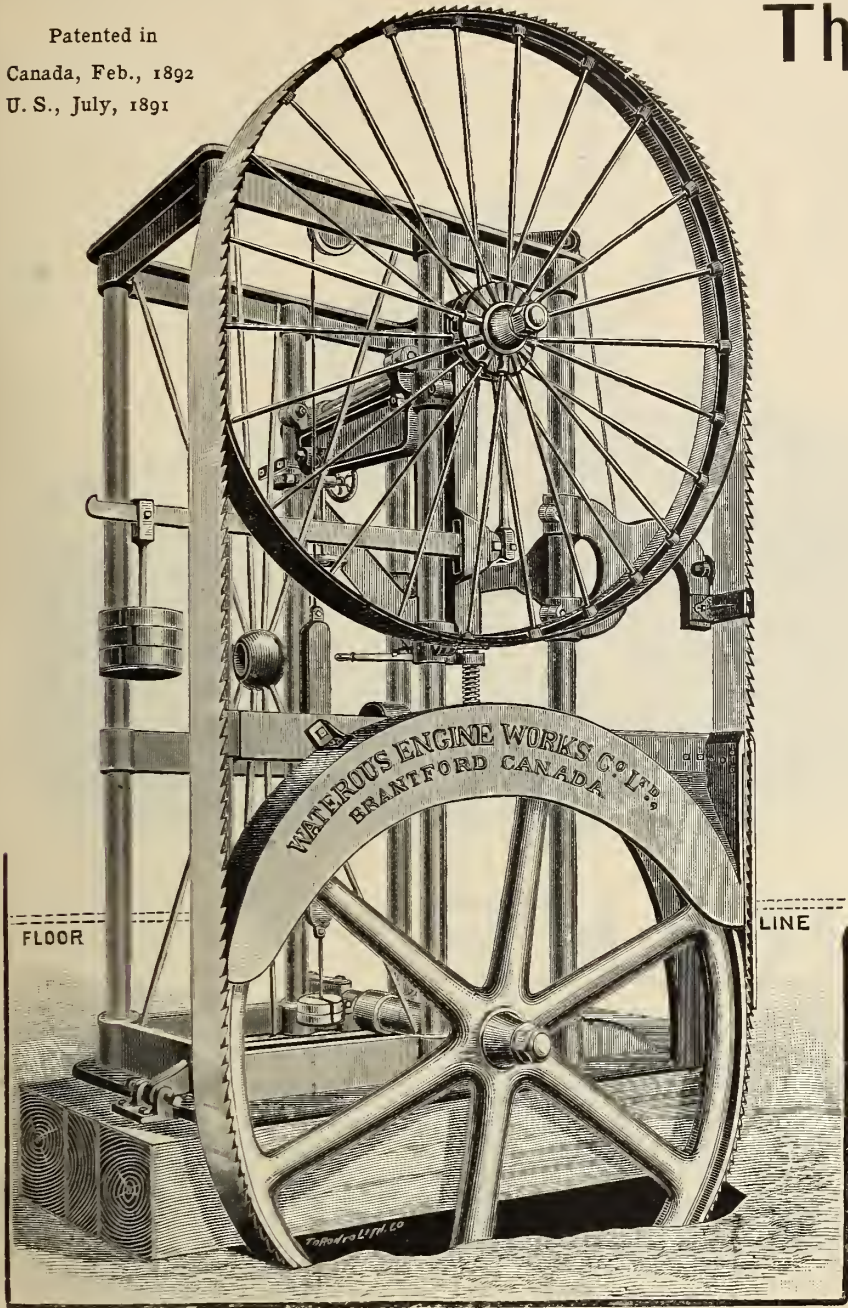
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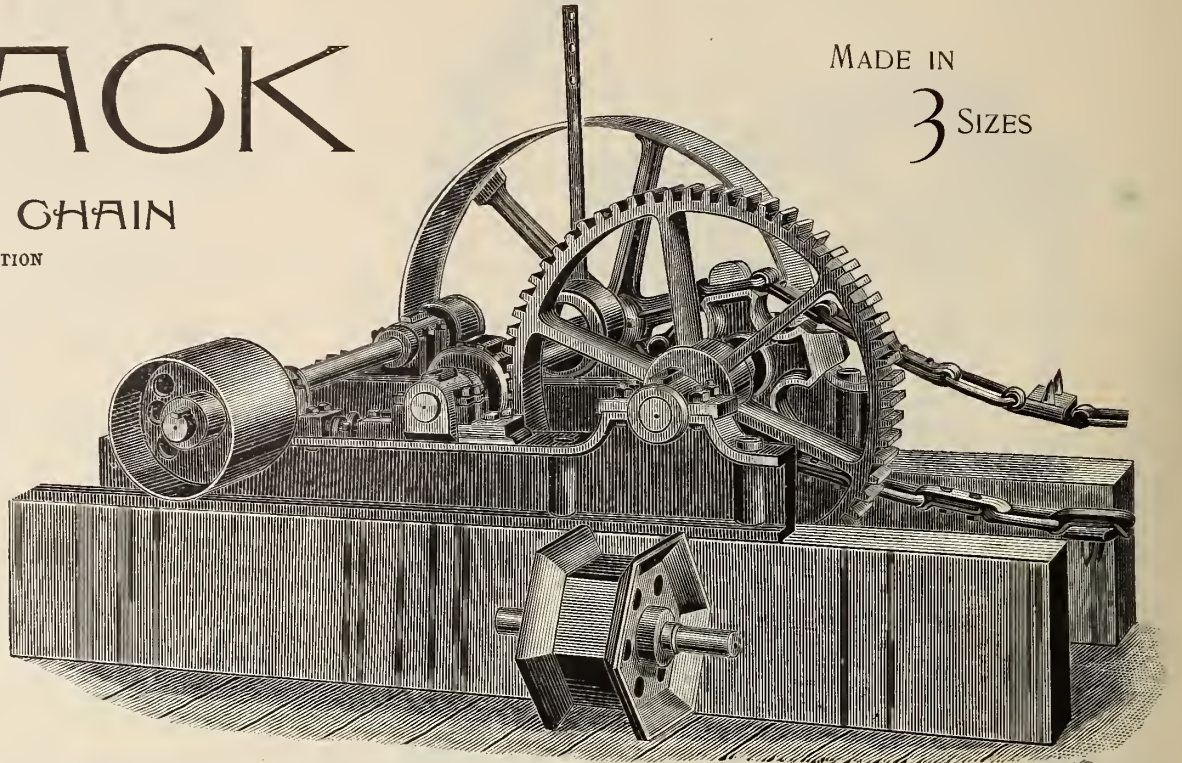
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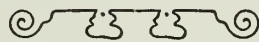
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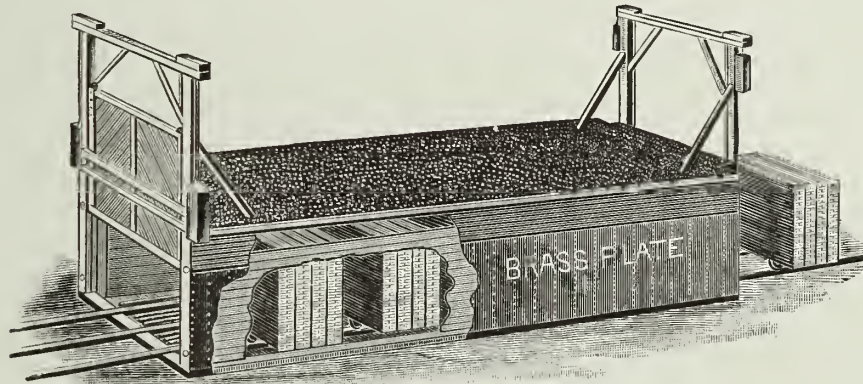
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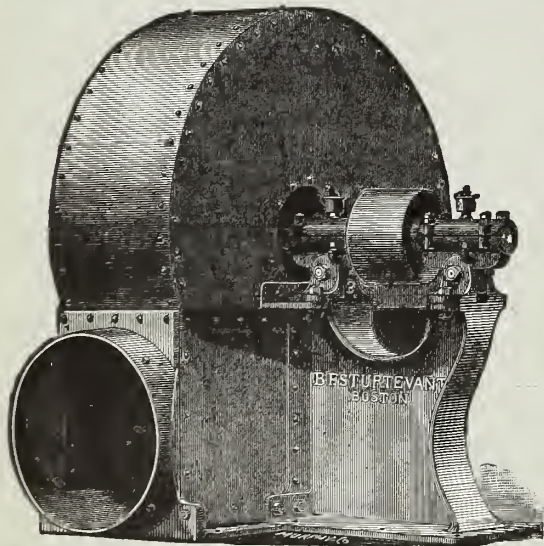
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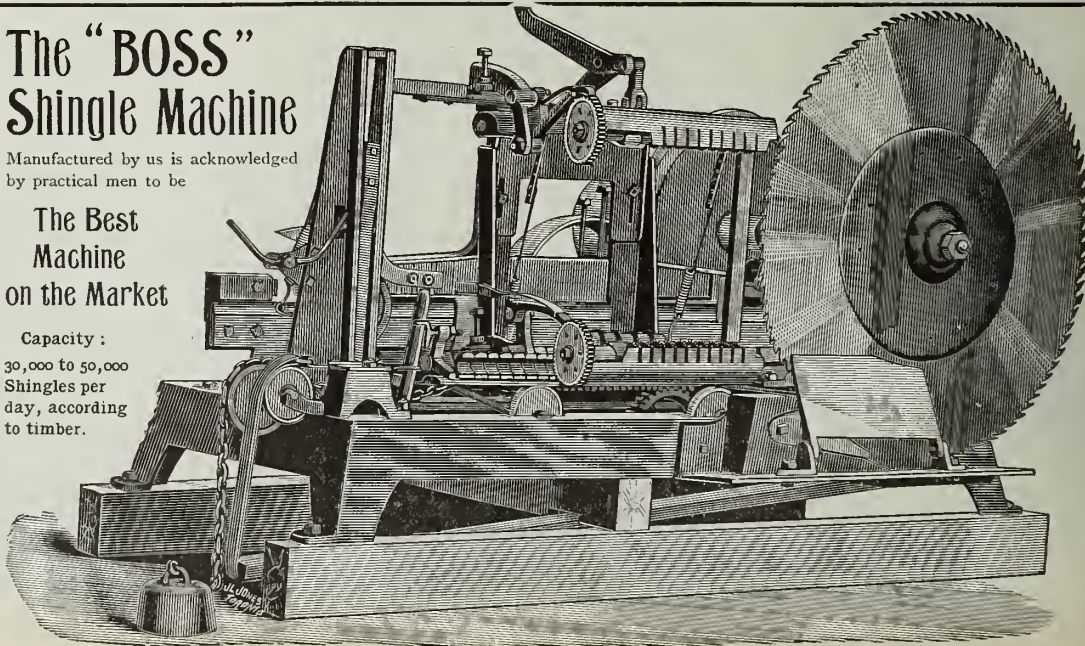
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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIII. NUMBER 8.

TORONTO, ONT., AUGUST, 1892

TERMS, \$1.00 PER YEAR SINGLE COPIES, 10 CENTS

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74 Cortlandt Street, New York, N.Y.
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Yours truly,
H. G. TORREY.
NOTE.—Mr. Torrey is U.S. Assayer, and has been in U.S. Mint service at New York for 30 years.

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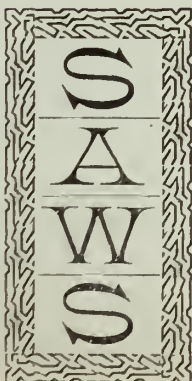
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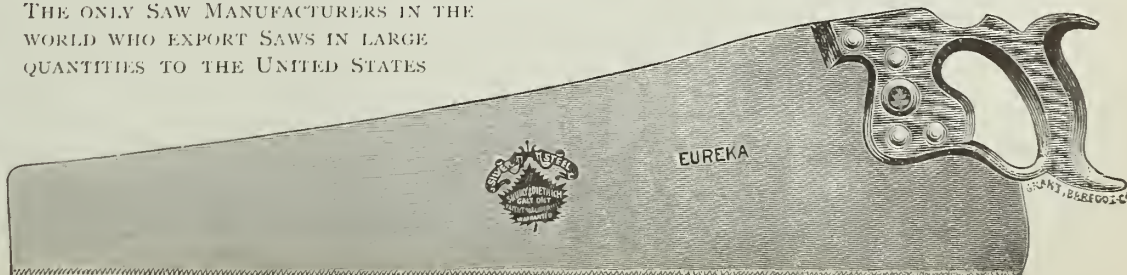
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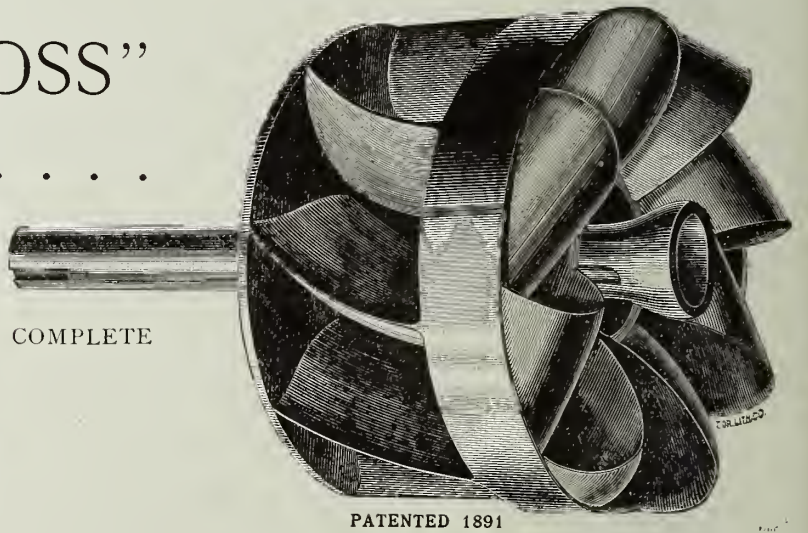
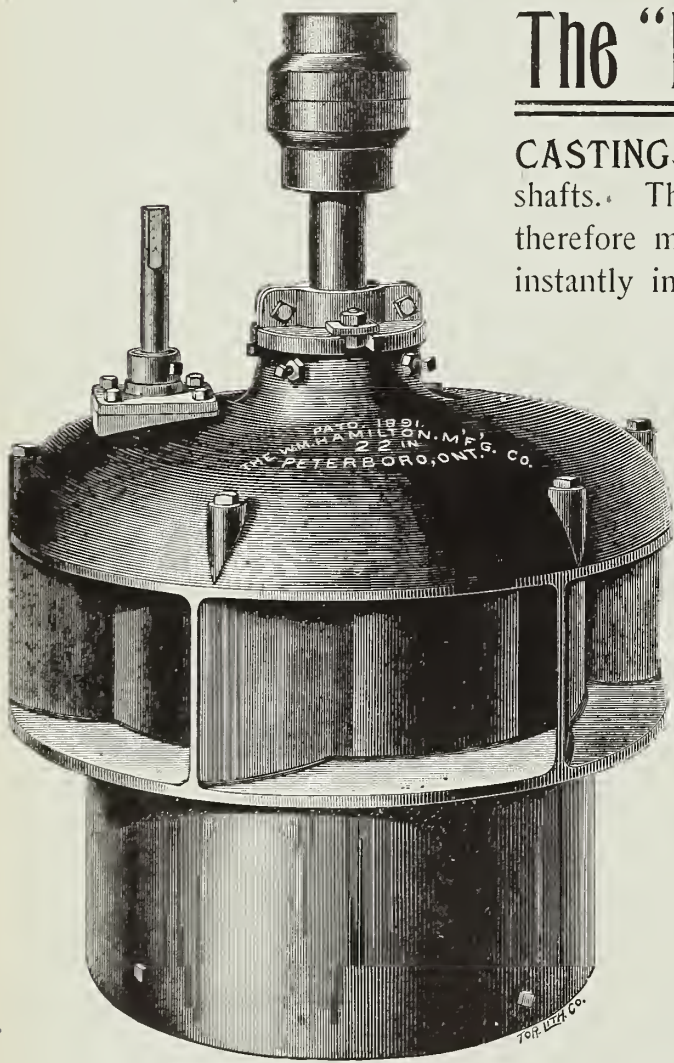
The "Boss" Turbine

gives the highest percentage of useful effect for every cubic foot of water used. No swinging gates, no arms, no rods. **SIX CASTINGS** comprise the entire wheel. Can be mounted on horizontal or vertical shafts. The easiest working gate of any wheel made; revolves on steel balls, therefore moves without friction. Easily controlled by governor. Can be shut off instantly in case of accident. Gates not easily chocked or clogged.

The fewest moving parts of any wheel made, and consequently the most durable. By taking out bolts, as shown on dome or cover, wheel can be immediately removed from case.

The "BOSS" Wheel

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THE CANADA LUMBERMAN

VOLUME XIII.
NUMBER 8.

TORONTO, ONT., AUGUST, 1892

TERMS, \$1.00 PER YEAR
SINGLE COPIES, 10 CENTS

BY THE WAY.

ABOUT a fortnight ago Graham, Home & Co., of Port Arthur, received a large raft of logs which had been towed across Lake Superior from Wisconsin to be manufactured into lumber in Canadian mills. So it is a poor rule that will not work both ways. The Americans are taking our logs. If we are so disposed what is to prevent Canadians from taking their logs? Sauce for the goose is sauce for the gander. The towing, we are told, was accomplished with complete success.

x x x x

What to some people may be an extraordinary occurrence may be to others a matter of no particular remark. Peculiar phenomena will mark certain localities, but to the residents of these localities they possess nothing peculiar, because common to the locality. A stranger in that locality would find these a feature of wonderment. It is here that one of the delights of travel asserts itself. The London Timber Trades Journal prints a photographic view of a log jam, or "salom," as it is called, that occurred at Riga, in the Baltic provinces of Russia, and gives a lengthy account of the disaster. A "salom" is not an unknown difficulty of lumbering in the Baltic, but it is unusual evidently to witness anything as large as that described by our English contemporary. In this newer world a log jam is a frequent occurrence, and the size of some of them is not to be measured by that on the Riga.

x x x x

Not less than one hundred men and boys make a living picking up and selling pieces of wood that fall from the mills into the Ottawa river, and 150 others, who work between times and after regular working and school hours, find occupation and some remuneration in the same business. Up and down the river these fishers of wood may be seen at all hours, early and late more particularly, in their flat-bottomed bonnes, some with pike pole and others with nature's own grappling rod, the arm and hand, dragging in their product. The wood is piled on the shore to dry and afterwards hawked around the streets for sale. Those who can afford it hold their supplies for the winter when a better price is secured. Some hold their draggings for home consumption, filling in a useful niche when the cold sweeps down the Ottawa and money and work is less plentiful than in the summer. The quantity of driftwood, as it is termed, gathered in a summer in this way runs up into many thousands of loads. Were it not that the river is relieved of this refuse the wood would sink in time and fill the river bottom or block the bays. And so it is that very little of anything counts for waste in this day.

x x x x

In a sketchy compliment paid by one newspaper man to another—and strange to say they are rival journalists catering to the same field—there is found these words: "Haven't you noticed that there are men who always have an eye on boys who show signs of promise, which means gentlemanly boys, who try to do their best every time? Well, there are, and boys would be surprised if they knew how they were being watched by men who were on the lookout for brainy, reliable help, and some of them if they knew anything would behave themselves better than they do." Walking along the streets of any of our towns or cities, small or large, the observing man must be impressed with the thought that either there are many boys who do not know they are "being watched by men on the look-out for brainy, reliable help," or, if knowing this, they must hold strange ideas of what goes to decide an employer of labor in selecting his help. There goes a boy on a message for his employer; what is he doing? He has lost fifteen minutes of his master's

time betwixt staring in a shop window and chattering with an idle companion. There is a young man out on a business commission and with a friend he steps into a corner saloon, and the moisture on his upper lip is the tell-tale of his business in that place. Another indoors gives no thoughtful care to the work in his hand. His heart is not in his work. What employer wants anything to do with any of these boys? These are not the boys, who like the one of whom we have been reading, has forged his way from common school to high school, and the rudimentary positions of a newspaper office to one calling for enlarged abilities and greater responsibilities. The LUMBERMAN touches on these matters because it has an interest in the younger generation of lumbermen, as well as those who have climbed successfully over the difficulties of earlier years. We have a strong attachment for the boys, and we want to see them start right.

x x x x

In some measure at least chaos will exist in a district where the conditions of society are still embryotic. We see this in the municipal management of our newer towns. Those charged with the responsibility of controlling affairs are timorous of moving too rapidly, and public works are entered upon as though those concerned were building only for a day. Even so modern and progressive a city as Toronto is not a poor example of this kind. How much of our public works has been of a character that has called for constant tearing down and rebuilding. The younger business men, and some of the older ones, pursue similar methods. They do not recognize the possibilities ahead, and hesitate to go too fast. It is the conservatism of human nature asserting itself, an excellent characteristic, though doubtless exercised with too great vigor sometimes. The lumbermen of the Southern States are having an experience somewhat on these lines. They have realized of late years the large timber wealth of which they are possessors, but by its very abundance they are dazed. There is no such a thing as business organization among them, and as has been indicated by recent interviews in these columns, in their anxiety to place their product on the market, they have had no regard for one another's interests, or, indeed, their own.

x x x x

Few studies in life are more interesting than those which illustrate the various methods employed by man to obtain a livelihood. The pressure of living in this age is so great that it tests the wit of the most ingenious and gives rise to many novel occupations. In another paragraph we have told of the driftwood gatherers of the Ottawa river. A step or more higher up in the mercantile ladder are the "millwood" dealers of the Ottawa, who contract with the millowners to remove daily from the mills at the Chaudiere the refuse wood that gathers from the saws. This wood consists largely of blocks and four-foot edgings, which drop from the saw into a place known as the "box." For the proper running of the mill this "box" must be kept clear, and this is a stipulation of the contract. The men engaged in the business need to possess sufficient capital to supply themselves with horse and rig, and must employ more or less help to carry on the work. About 100 loads of blocks and 200 cords of edgings are taken daily from the mills. This business has not assumed its present proportions at a jump. There was a time it is said in the early history of lumbering in Ottawa when millmen not only gave the refuse wood away to have it removed, but paid some one to have it done. Population has increased and with it the demand for wood. It is estimated that 35,000 loads of millwood a year are now taken from the mills. One mill alone, it is said, makes \$1,000 a month out of its refuse wood, or about \$6,000 a year. As a study in economics these facts are not unsuggestive.

THE POWER OF WATER.

THERE are very many, generally unknown, peculiarities about water as a power-making agency, even to a great many mechanics that are quite efficient in practical hydraulic engineering. The spouting velocity of water is controlled by the same law as falling bodies. As an instance the spouting velocity of water under a 16-foot head is the same as that of a body falling 16-foot, that is, the velocity of the falling body at the end of the 16-foot fall is the same as the initial velocity of the spouting water from under a 16-foot head, both being 32.4 feet per second.

The velocity from under a 64-foot head is 64.8 feet. It strikes the careless thinker as being quite strange that water should have a spouting velocity of 32.4 feet from under a 16-foot head, and why 64.8 feet from under a 64-foot head, and each are apt to jump at the conclusion that as the head increases in height it loses relatively in power. That, however, is very far from being true. A 20-inch water wheel will yield eight times as much power under a 64-foot head as it would under a 16-foot head, but would, of course, use twice as much water. The power developed being always directly as the quantity of water used and the height of the head.

The square root of the multiple of increased height is the multiple of the increased spouting velocity. Thus, as we have seen, the head has been increased from 16 to 64 feet or 4 times, while the spouting velocity was increased 2 times only, 2 being the square root of 4.

The spouting velocities of streams of water issuing from under various heads is as the square roots of the heads; or, in other and plainer terms, velocities increase in exactly the same ratio that the square roots of the heads increase; and a convenient way to ascertain the spouting velocity of any given head is to take the square root of it and multiply it by the constant factor 8.1. As an example we will take a head of 16 feet, the square root of which is 4, which multiplied by 8.1 equals 32.4 feet the velocity of a 16-foot head. Again we have a head of 64 feet, the square root of which is 8, which, multiplied by the constant 8.1, equals 64.8 feet per second, the spouting velocity of a 64-foot head.

Now, if we take a 4-foot head as a basis and call its useful effect one, we are able to construct a simple formula for ascertaining the relative useful effect of any other head. First obtain the spouting velocity of the head as above explained, and divide it by 16.2 which is the spouting velocity of a 4-foot head; then divide the height of the head in feet by four and multiply the two together and the product will be the efficiency as compared with a 4-foot head. As an example take a 16-foot head, the spouting velocity of which is 32.4 feet, which divided by 16.2 equals 2; and 16 divided by 4 equals 4, which multiplied by 2 equals 8. Therefore, the efficiency of the 16-foot head is 8 as compared with one for the 4-foot head. Or again, take a 64-foot head, the spouting velocity of which is 64.8, divided by 16.2 equals 4, and 4 divided into 64 equals 16, which multiplied by 4 equals 64, the efficiency of the 64-foot head being that many times greater than the 4-foot head. It must be understood that the vents are the same in size in their calculations. As the size of the openings are decreased or increased the effectiveness is decreased or increased in proportion. The result of these calculations are only relative to get at actual results. In any case we must know the actual quantity of water that can be used.

DECLINE IN SHIPMENTS.

LUMBER shipments from the Saginaw river by lake had amounted up to July 1 to 129,673,000 ft. Last year at the same date the shipments had reached 138,186,000, and in 1882, when the business reached the maximum, it had amounted to 284,794,922 ft. The decline is due to the decline of the business.

VIEWS AND INTERVIEWS.

Large Trees. All the large trees of the forest are not a growth of this newer country, though the British Columbia tooth-picks and the big trees of the Pacific coast may be expected to possess an unquestioned lead. An English contemporary tells us of some large trees in that country: "On the top of Shanklin Sand, in Surrey, stands the Hascombe Beech, bearing upon the outside of its stem a board setting forth that it was a remarkable tree in 1772. In Norbury Park is a beech 160 feet high. At Crowhurst, in Sussex, is a venerable yew tree, thirty feet in girth, and supposed to be more than a thousand years old. At Norbury there is a Druids' Grove of yews that might from their appearance be of any age that fancy dictated; they are affectionately spoken of by their proper names, "The Fallen Giant," "The King of the Park," and "The Horse and its Rider." It is the oak family, however, that has produced the most eminent individuals; but it cannot be forgotten that if all the toys and ornamental specimens of cabinet work said to have been manufactured out of the Herne Oak really formed a portion of that Shakespearian tree, it must have possessed a fabulous quantity of solid timber. Panshanger, Hertfordshire, figured even in the last century as the home of the Great Oak, containing a thousand feet of sound timber, and maintained by all good judges to be a model of oak-like form."

Small Wit. There is such a thing as being over-smart—at least thinking one's self so. The newspapers are as guilty in this respect as anyone. A writer in a recent Atlantic wraps on the knuckles none too severely those people who want to take fun out of everybody and everything, and enters an intelligent plea for greater seriousness in the world's concerns. Everything is not to be sacrificed to the wits of the day. The Northwestern Lumberman makes a practical application of this line of thought to matters closely related to lumber. "It's in bad taste," says this journal, "for cheap newspaper writers to sharpen their pencils and what wit they possess, and pounce upon the man who declares he is on the path that leads to perpetual motion. If a man has an idea in his head he should be permitted to work it out to the best of his ability. There are so many men whose brains are strangers to such a thing as an original idea that by all means the man who does possess such an idea should be given a chance. We all remember right in our own line how inventions and their applications have been attacked. Mike Engelmann was called very short-sighted when in 1854 he put a circular saw in his mill at Manistee. Years ago when the first band saw used in Bay City was discarded and hung out on the fence to bleach, every man who passed along the highway and who thought he knew all about the points of a sawmill, remarked cheerfully and complimentarily, "The blank old fool," or words to that effect. Yet look at band saws to-day. Hill, the nigger man, and Prescott, the steam feed man, came in for their share of abuse. It has been so all along. Of course not a man who reads this expects to see a machine that will furnish its own power and run forever, but the crank who believes he can produce such a machine is harmless, and in his investigations may stumble upon something that will prove of value. We wish for once the pens of the wits of the press might be turned on the men who are not trying to do anything. The perpetual motion crank has this virtue at least—he is trying to do the best he can."

Weighing Cars. During the past winter it came to the LUMBERMAN to make enquiries regarding the weighing of lumber shipped by car. The complaint was that the car weight invariably gave to the lumber a greater weight than the lumber itself carried. The cars, especially in winter, were loaded up in no small degree with ice and dirt gathered during their various journeys. These things were not allowed for in the net official weight of the car, and consequently counted as lumber when the loaded car was placed on the scales. The evidence of these conditions was verified by specific cases that had been placed in our hands, and further in interviews among the trade in the city. Our bright little contemporary,

Hardwood, has lately been giving its views on this question. The subject is introduced by the statement, known to be the rule in railway construction, that all cars have the shop weight stencilled on the sides when the car is finished, which is seldom changed till the car goes to the bone yard. "This might possibly be honest," this authority goes on to say, "if the car never had to be repaired or did not so often accumulate dirt and rubbish for which little or no allowance is made by the weigh clerk. Often in winter cars will be run into the lumber yard with hundreds of pounds of dirt of various kinds frozen tightly to the deck and on to the running gear, to which is added as much more ice and snow, too solid to be removed without great expense, all of which adds to the gross weight of the car. Compelled to use the cars, the lumberman loads them and trusts to the weigh clerk to make the reduction as near right as he can guess, which can scarcely be very close, and must naturally be in favor of the railroad company, if made at all. If the lumber is weighed in transit or at destinations, the case is rendered worse still. In transit weighing is almost always the most unsatisfactory, as it is generally done in a hurry and carelessly, the distance from and ignorance of the shipper's personality somehow operating to produce a feeling of irresponsibility in all the railroad employes concerned. If lumber is sold delivered, the receiver is relieved of all responsibility, generally paying all freight bills as presented, without reference to possible overweight. And once paid, every shipper knows only too well how difficult it is to get an error corrected, and how few errors in weighing are ever fully or satisfactorily corrected. About the only safeguard on weighing the shipper can possibly have, is to weigh all lumber himself on his own scales, as it is loaded. But even this, in many cases will only act as a check against the most flagrant errors; minor ones, amounting to only a few hundred pounds to a single car, seldom being corrected. A large shipper who had placed scales at his mill, on which every foot of lumber he shipped was weighed, relates that of 1,000 cars he loaded, the railroad weights corresponded to his in the case of only fifty-two cars, and that of the remainder all except forty-seven ran over, the net increase averaging slightly over 300 pounds per car for the entire 1,000 cars, or 300,000 pounds altogether. As the average freight on this lumber was between eighteen and nineteen cents per hundred, he actually paid the railroad company something over \$540 overcharged freight on the 1,000 cars in one season; and there being no competition from his shipping point, he with the greatest difficulty only managed to secure a refund of a little more than one-half the amount."

Certain Business Methods. Perhaps in the good times to come, when Bulwer Lytton's "Coming Race" will have peopled this earth, or Bellamy's new world has been ushered in, excessive profits and excessive competition may be consigned to the limbo of the past. These two abnormal elements, in the opinion of the Bankers' Magazine, give rise to the various difficulties in production and exchange. The pity is, though the wish may seem chimerical, that we are not able to right these matters now, and not be obliged to wait for another generation, when the remedy will do no good, at least to those of us who are about here at the present time. Conditions are unevenly balanced. Constantly one end of the teeter and again the other is in the ascendant. The see-saw is not guided by any rules of a fair equilibrium. Is the trouble where the Bankers' Magazine places it? Our impression is that this journal has very squarely struck the mark. The reasoning is supported by the logic of a wise political economy and the lessons that one's own observation and experience teach. The journal in question says: "The profits from production and exchange in many cases are so great that those who reap them seek to produce and exchange beyond what may be termed the normal or healthful limits of society. That this remark is true is within the ken of everyone's experience. The modern machinery for forcing business in many directions furnishes abundant proof. The conduct of many producers and exchangers would seem to imply that men no longer had any wants; that production and exchange were not based on mutual interest, but could be affected only by the application of extraordinary energy. This seems to

be the underlying idea in much of our modern exchange, and yet, as we have seen, it must be wholly false, or else our leading premise is erroneous. Another explanation for thus forcing business is the small profits, which compels producers and exchangers to increase their business in every possible manner in order to get enough to pay their expenditures and save themselves from bankruptcy. We are all familiar with the consequences of attempting to do business when insolvency is pending. All know what extraordinary efforts are often made in order to avert that event. How goods are pledged for future advances; how they are sold at very low prices and often at ruinous loss; how money is borrowed at high rates of interest; in short, all sorts of methods adopted in order to escape such an unwelcome fate; and the result of these things, of course, is most destructive to all legitimate business. Reasonable prices are destroyed, the entire market is demoralized, and, in fine, the whole process of production and exchange thrown out of gear, when the pressure to produce and sell originates from this state of things. And yet, in the past, a great deal of production and exchange has had such an origin; the unlucky are always with us, who, in trying to save themselves, too often draw many others nearer to the danger line than they were before. These, in brief are the leading explanations of the phenomena which we set out to explain. Men seek to produce and exchange beyond any rational desire, either to enhance their profits or to escape ruin. It is either a fight for too much or a fight for life. Probably society suffers more from the operation of the last cause than from the operation of the former; but in either case the suffering is great. Production and exchange should lead to no such results; these processes should yield mutual gains and pleasure. And they would if kept within proper limits. What produces so much loss and misery at the end is the extension of production and exchange beyond these boundaries."

MILL SAWS: THEIR USES AND ABUSES.

ACKNOWLEDGING that many writers on mechanical subjects have imparted much valuable information on the care and management of circular saws that is not only interesting but instructive to the thousands of users of that useful tool, yet, notwithstanding all this, says Mr. C. R. Tompkins, M.E., there is still the same old trouble that has for years been complained of, especially with new ones, and unless the sawyer or filer is an expert, and has the necessary tools for correcting certain faults, or rather adapting them to certain conditions saws will be continually sent back to the factory with the stereotyped phrase, "the saw won't work." And this is not always the end of it, and saws have often been sent back two or three times before they will work satisfactorily. Now, the question is: Who is at fault? In this age of competition it is not probable that any saw-maker would knowingly send out an inferior article, but, on the contrary, all saw makers intend to use the best material and employ the best mechanical skill in their construction, and yet after all there is just as much fault found with the saws sent out by the largest and most prominent saw makers as those from smaller establishments; and the fact is that probably not one saw in fifty that are condemned and sent back for alterations or changes has really any faults whatever in the quality of the stock or the workmanship, and if each saw were used under precisely the same conditions there is no reason why one would not work just as well as another.

But here is where the greatest difficulty is found, and one that saw makers are obliged to contend with. The manufacturer may have in stock a dozen saws, all of the same diameter and the same gauge, and all fitted up with the same care, and each hammered for a tension to correspond with a certain speed. Now, an order comes in for a saw of a certain diameter and gauge; nothing is said about the speed or other conditions—only the saw must be shipped at once, and the best and only thing the manufacturer can do is to fill the order from his stock and trust to Providence or good luck for it to fill the bill in a satisfactory manner; but if not, then trouble will commence as soon as it is started. Thus while two saws are out of the same lot and as near alike as possible, one may work well and give perfect satisfaction, and the

other will be sent back as worthless until certain changes are made in the tension or something else.

Now, how is the saw maker to know, in the first instance, from whence the trouble arises, unless he is informed as to the conditions of speed, etc.? In the first place, there should be an established standard of speed adopted for all circular saws of different sizes, and that standard should be adopted in all mills, and then the saw makers would have something to go by; but so long as every mill has its own speed, and some have two or three different speeds, according to the size of the log, how is it possible for him to give a saw the proper tension for any speed?

The feed is another consideration. As the strain upon a saw varies with the feed, as well as the centrifugal force, a saw that might be well adapted to one feed at a certain speed might not be so well adapted to another, and while one saw may be all right, another from the same lot may be all wrong in the estimation of the Sawyer. Imperfect collars are frequently the cause of trouble, and it cannot be supposed that a saw which of itself may be perfectly true, will run so upon imperfect collars, and to pack up a new saw with paper to compensate for imperfect collars is a remedy as bad as the disease.

Cases are sometimes found where the carriage was not square with or at right angles with the mandrel, and this is frequently the cause of trouble with a saw.

Now, all these points should be carefully examined and corrected before a saw is condemned. Where the collars are out of shape and do not run true on the face, the Sawyer, if he is an expert workman, can easily correct that himself without taking it to a machine shop. He can easily rig up a temporary rest that will be sufficiently rigid for the purpose; then, by running it slowly with a file ground square on the end, and by the use of a short straight edge, he can soon scrape it down to its proper shape with but little trouble, and when this is completed the chances are that the saw will run true, and if other things are equal and the tension adapted to the conditions of speed and resistance, all will be well. If not, then the tension should be so changed as to adapt it to the work.

Again, it is a well-known fact to all Sawyers that the best of saws, after a few months of hard work, will lose their tension, become sprung or dished and require frequent hammering in order to correct it, and the delay and expense of sending the saw to the factory or running it in such condition may be avoided by keeping the necessary tools on hand for this purpose. Therefore, the hammering and ordinary repairs of a circular saw should be part of the education of every Sawyer or filer, especially those who make filing a specialty. With proper tools, which every proprietor should consider part of his outfit, these repairs can be made not only much cheaper, but at a time just when they are needed.

Insufficient and uneasy power is another obstacle that the saw maker has to contend with. In some of the country mills, more especially those that are upon light streams and operated by water power, the speed is variable. Now, if a saw is hammered to run 600 revolutions per minute, it cannot possibly run correctly where the speed frequently runs down to 400. I have often noticed such saws to start into a log at 600 revolutions, and by the time that it had run one-quarter the length of the log the speed would be down to 400 and the saw would be flopping around like the tail of a fish; then the feed would be stopped to allow it to recover, only to be repeated two or three times at every cut. Now, how can it be expected that a saw working under such conditions can maintain any tension or be kept in anything like decent running order. The fact is, if the power is not sufficient to drive a saw through an average-sized log at 600 revolutions per minute, it is better, if the power cannot be increased, to reduce the speed at once to 400, and have the saw hammered to that speed and the feed regulated accordingly, and probably the same amount of work would be accomplished as would be the case where the feed must be stopped every few feet to allow the saw to recover its speed, and under such conditions a thinner saw should be used, not only saving power, but saving lumber also.

A circular saw, like every other tool, in order to per-

form its work in a proper manner and with the use of a reasonable amount of power, must be kept sharp and in good working order, and there is no economy in running a saw after it has become so dull that the lumber is torn out of the saw kerf instead of being cut in a clean, smooth manner.

BURNING HARDWOOD SAWDUST.

THE fact that he could burn his sawdust under his boilers, says Hardwood, has heretofore given the pine manufacturer an advantage over his hardwood brother. One of the most troublesome factors in the sawmill business has always been the disposition of the refuse. The pine men have succeeded in reducing the cost to a minimum by the aid of conveyors and the refuse burner, the dust going directly to the furnace; thus, while disposing of it economically, also reducing the cost of firing by dispensing with one or more firemen, according to size of plant.

It is a well-known fact that one of the most perplexing problems for the hardwood millman to solve is how to dispose of the dust, while a heavy item of expense has been firing the furnace. If the dust could be used for fuel as in the pine mills, there would be a double saving, for while an immense reduction could be made in the cost of handling and the disposition of the dust, and by lessening the labor of firing, an additional and no less important saving could be made in the slabs and edgings, otherwise burned in the furnace. In all hardwood districts they are valuable for house fuel, for which they readily bring a good price, and could they be marketed as such instead of having to go to the furnace room as at present, they would add a not inconsiderable sum to the profit side of the manufacturer's yearly balance sheet.

It is undoubtedly true that could sawdust be entirely substituted for other fuel in hardwood sawmills, many making now a bare living for their owners could be made to pay a profit. In these days of close margins, active competition and high prices for fuel, this is becoming a matter of vital importance to the hardwood manufacturer.

The increasing use of the band saw has served to complicate the problem very materially for, whereas with the circular mill some kinds of sawdust could be burned on a pinch, the band saw cuts all kinds so fine that all are equally refractory when put on the grate bars, the pine men even finding it difficult to burn it alone on the ordinary grate.

The increased use of circular saws of thin gauge has still added another difficulty, for now, with a thin circular on one side and the fine band saw on the other, there is nothing to mix with the latter coarse enough to give passage to the air through the mass of sawdust on the grates. And here is the whole theory in a nut shell. To burn dust there must be some means of supplying each particle with its proper accompaniment of oxygen from the air, without which there can be no combustion, only a coking with a moiety of heat.

The coarse dust of the thick gauge saws of the old circular mills admitted sufficient air to permit of combustion with careful firing and a draft capable of removing enough of the lighter ash as fast as made to prevent it from clogging the space between the unburned particles. The finer the dust, the less room for the necessary air among its granules. Hardwood dust is, perforce, finer than pine from the fact that the saws have more teeth and are run with less feed, thus giving each tooth a smaller bite on the wood.

Hardwood, owing to its superior density, burns slower than pine, and what is true of the wood is true of the dust. A device that will burn pine dust, therefore, may or may not burn hardwood, and here is where the latter still puzzles the inventors, who have been working on the problem in a desultory way almost from the time of the first use of the saw. It seemed to be understood from the outset that a current of air must be introduced and maintained underneath the grates, which should be of sufficient force to penetrate any mass of dust accumulating on them and large enough to furnish the necessary quantity of oxygen and to prevent the formation of a cake with the ashes and unburned dust.

One of the first recorded attempts made was early in

the fifties, in a sawmill and a general wood-working establishment in Massachusetts. All kinds of wood, native to the state were worked up in the mill, and the dust was mixed. The dry dust of all kinds was mixed with shavings and chips from turning and other lathes, and was easily burned. But this fuel and other coarse refuse from the mill proving insufficient at times for the boiler furnace and the hot-air furnaces of the crude kilns then in use, and wood being expensive, an attempt was made to burn the green sawdust, which proved fairly successful until the establishment was abandoned and dismantled a dozen years later.

The contrivance employed was all home-made and very simple. It consisted mainly of a gridiron of small iron pipes placed transversely across the ash pit close to the under surface of an ordinary set of cast iron grate bars. In the upper side of the pipes a series of small holes was drilled to come opposite the spaces between the bars. Connected to the gridiron was a pipe running from a twenty-four inch home-made wooden fan which operated as a blower, and which revolved at about 2,000 revolutions per minute. That was all there was to the machine, and so successful was it that when not needed, there being plenty of dry fuel, or the water-power which ran the mill part of the time being in use, the surplus dust was run into a pile outside the furnace room to be wheeled in when wanted; and for more than a decade that simple, home-made device, built by three boys all under age, did its work so well that no more wood had to be furnished for the furnace, and three of the home-made fans were worn out in succession.

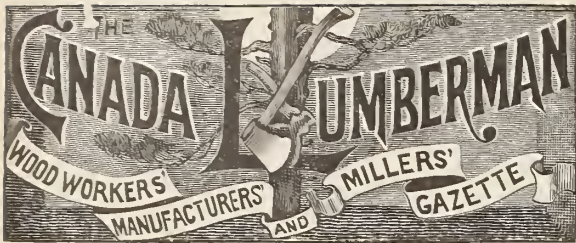
Several fairly effective patents for the same purpose are in use, but it is doubtful if anything yet discovered can beat the simple arrangement here described if it be equipped with a good, substantial steel blower fan. Most of the appliances in use embody more or less of this principle, generally forcing a blast of cold or hot air into the fire pit, either above or below the grates, some combining pipe and grate bar in one piece by a simple change of form, others arranging the air pipes differently. It is still a question whether the hot blast is an improvement, as it is the quantity of oxygen that can be injected among the sawdust grains that produces the desired result, and the amount in the air depends upon its density and not upon its bulk; therefore heated air being expanded and less dense than cold, must contain less oxygen to the cubic foot. Heat also robs the air of a portion of the hydrogen which it holds in the moisture and which it carries in suspension in a natural state, and as hydrogen is an aid to combustion under certain conditions, its loss is of more or less moment.

Until recently the economic questions involved in the burning of hardwood dust have appeared of so little account that scientific investigation as to principles and means has not been stimulated to any great extent. But the question is now assuming so much importance that decisive results may well be looked for in the near future.

WOOD-WORKING TOOLS.

IN many planing mills there is trouble because the grindstones used are not suitable for the tools and bits. A much softer grindstone is needed for tools used for cutting wood than for those used for cutting iron and steel. The quality of work turned out by any modern wood-working machine depends very much on the skill and accuracy exercised in grinding the tools and bits. The grindstones should be kept perfectly true and well balanced, and should not be speeded so fast as to create too much heat, nor so slow as to cause unnecessary loss of time. We often see stones so "out of round" and so "wabbly" that the operator cuts from the heel of the bevel toward the edge of the tool, and has the stone to rotate from instead of toward him. If the stone is true it should run toward the tool that is being ground—that is, of course, supposing the tool is held about one-third the distance from the top of the stone, with the cutting edge uppermost. The angle of the bevel of a wood-cutting tool has a great deal to do with its efficiency and differs very greatly from that which is proper for an iron-cutting tool.

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EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

ST. JOHN'S, THE DISTRESSED.

SYMPATHETIC interest centers in Newfoundland, whose chief city, St. John's, was devastated by fire on July 8, last. Without entering into details, for the story of the fire has been told with all minuteness in the daily and weekly press, the fact that 14,000 people are homeless, dependent upon the beneficence of sister countries for their existence, will carry some idea, yet most inadequate, of the suffering that is being endured. A happy feature, though the term may appear incongruous, of this distressing calamity—and we want to remember that the blackest cloud has its silver lining—is the ready and generous response of the people of the Dominion to the call for help from the ancient colony. How true it is that one touch of nature makes the whole world kin.

Newfoundland has a lumber history that is not without interest to Canadian lumbermen. The latest official report to the colonial office states that there are more than 2,000 square miles of valuable timber lands, principally pine, within the colony. Mr. Howley, F.G.S., of the Geological Department, reports that there are 850 square miles of pine timber land in the Gander and Gambo river country, and 700 square miles on the borders of Exploits River and Red Indian Lake. To this must be added the but partially surveyed timber limits of Deer Lake, Grand Pond and Humber River country. It is safe, he thinks, to assume, therefore, that the lumber industry will, in the near future show considerable expansion. Canadians are to some extent interested in the lumber resources of the island. Ex-Ald. J. W. Phillips, of this city, has a large lumber interest in Newfoundland and had about \$10,000 worth of lumber destroyed in the fire, but which, we are glad to say, was fully insured. Mr. Phillips has taken an active interest in raising funds to assist the sufferers, and promptly sent forward himself a cargo of lumber for their benefit. Other lumbermen, in their position as members of the Board of Trade, and as private citizens, have contributed

liberally. The publisher of the CANADA LUMBERMAN, who is also publisher of the Canadian Miller, was successful, in response to an appeal to the millers of the country for contributions in kind, in securing, all told, about 400 barrels of flour for the St. John's people.

St. John's is, or rather was, one of the most beautiful cities in the world. The entrance through the narrow straits leading to the city possessed a peculiar charm, while the city itself, in its form of construction and the surroundings associated with its almost measureless fishing interests, was, we have been told, singularly unique and attractive. Though not unnaturally deeply depressed just now, and despondent of again recovering their former position, we will hope that in a little while, as the mists gradually clear away, that our sister colonists will be fired with fresh activity and enthusiasm and rise stronger than ever from the fires of the present. We can hardly expect anything else from a people known to be markedly hardy and robust in their composition.

LUMBER PRODUCTION IN CANADA.

OUR Ottawa correspondent informs us, through his letter in another page, that the lumber industry of the Ottawa valley is experiencing an undoubted revival. Business has not been nearly so brisk for many years. The mills are running with a full complement of hands, and the product of manufactured lumber that will be produced this season is already, largely, sold.

No one is rejoicing more over the situation than the people of Ottawa. It means prosperous times for them. The monthly wage bill of the many large mills of the district, combined with the turn-over, at good prices, of their output, cannot be resultant in anything else. Moved by a not unnatural human impulse the citizens of Ottawa think, under the favorable conditions now existing, that matters might be further strengthened, and are asking: "Now that the lumber market is improving and what lumber will be produced is practically disposed of, why will not the mill-owners increase their output and for the season run the mills night and day?" From the local point of view the question is pertinent and forceful. If the wage bills of the millmen could be doubled by having a night staff, as well as a day staff at work, it would mean big things for Ottawa. But the millmen have distinct recollections of the experience of past years and do not look favorably on the suggestion.

Because there is a good demand in apparently a rising market for what lumber Canadian mills are now producing it does not follow, if the capacity were doubled, that the same conditions would apply. The step might have, in part at least, an opposite effect and if not, kill the goose that had laid the golden egg, cause the egg to be considerably addled.

For several years past, as LUMBERMAN readers are aware, the lumber industry of the country has been depressed; and in the opinion of shrewd lumbermen, and leading bankers of the country have spoken strong words on the question, this was a result of over-production a few years ago, particularly in 1887-88, when, as Mr. Hague has said, lumbermen "plunged into enormous operations far beyond their means to carry through."

The most healthful times commercially are not always when the manufactures of a country are multiplying rapidly and running at their fullest capacity. One may not unfairly refer to a period in the near past in this country when trade in this direction was experiencing a wonderful boom and at the same time manufactures in many important lines, instance the cotton mills, could not well have been in a more congested condition.

Production in any line is secured at a cost for labor and a cost of capital. The commodity produced must be able to withstand the call from both sources, otherwise it will represent a loss to the manufacturer, who has drawn on these two sources. It is a mistake to say that the cost in both instances will come out of the article manufactured. We expect this; but expenditure on a given article does not necessarily give that article value. The demand for the commodity manufactured fixes the value. One may expend labor and capital in production and yet the commodity produced, for various reasons, fail to realize even the cost of production. The history of commerce tells of scores, yea hundreds, of cases of the kind.

Concerning the lumber trade, whilst mill owners in running their mills over-time, might cover their cost of labor, they might come short of covering the cost of capital consumed in the additional work. Running the mills at an increased capacity would require an increase in capital, and capital, like labor, cannot be had without cost. Further, the extra lumber produced might make a demand on capital to which capital could not easily respond, and the history of 1887-88 would repeat itself. The placing of this additional product on the market would not unlikely have an influence in lowering prices on the new product, but, also tend to affect prices of lumber generally, in the hands of both millmen and middlemen. These are some of the considerations, no doubt, that have determined the Ottawa lumbermen to go it slow in the work of production, for at least this season.

AMERICAN LUMBERMEN IN CANADA.

A FEW months ago we chronicled in these columns the sale of 500,000,000 feet of pine and a mill of 12,000,000 capacity, besides a large quantity of logs afloat, of the Dodge estate on the Georgian Bay, to Merrill, Ring & Co., of Saginaw, Mich. It was not certain at that time whether the purchasers would operate the Canadian mill, or remove their timber to Michigan to be manufactured there. We learn now that the new concern will operate the mill here and that during the coming winter they will build another mill near the old one and use it for the manufacture of the newly-acquired timber. A yard will be established at Toledo, where it is expected that about 20,000,000 feet of manufactured stock will be handled annually. This resolve on the part of these American lumbermen is a disappointment to the people of their own State, as it had been hoped that Saginaw would have reaped the benefit from manufacturing so large a quantity of lumber, but it is stated that "the discrimination against Saginaw in the matter of rail rates induced the firm to decide to manufacture all in Canada, and ship the major portion in the rough to Toledo." This is a case where Canada has been a gainer by the addition of at least another mill in placing the control of important timber interests in the hands of United States lumber concerns. Their decision, doubtless made after careful calculation, may prove a deciding point in the plans of other American lumbermen operating in Canada. The firm of Merrill & Co. is described as "one of the largest and most enterprising lumber concerns in the northwest." They also operate a large mill at Duluth.

LUMBER AND THE INTERCOLONIAL.

It is difficult, without further explanation, to understand the recent action of the Intercolonial railway in resolving to charge \$1 a car demurrage on all cars at St. John, N.B., not relieved of their lumber within forty-eight hours after arrival. Shippers claim that it is not possible to discharge their cargoes in this time. Their case is stated in these words: "Before a large vessel can be induced to go to the wharf to load there must be fifty or seventy carloads of lumber there waiting to begin with, which means only two or three day's work. Then they have to run their chances in getting their cargo along in time. It not unfrequently happens that when a vessel is lying waiting for the balance of her cargo, the lumber is delayed somewhere along the road and the shipper has to pay the vessel demurrage for the time she is kept waiting. Again, lumber delayed in this way sometimes arrives after the vessel it was intended for has sailed, and if the shipper was charged demurrage for keeping the car waiting for a few days till he got another chance to ship the lumber, he would naturally feel that he had been unjustly dealt with." There is every reason for the Intercolonial treating with the lumbermen on a common-sense and generous basis. The lumber traffic on the road is no inconsiderable item. Since April 1, for example, the firm of F. Tufts & Co. alone have paid this road \$8,000 freight on lumber shipped from St. John. We would not argue because a Government road that any unwise concessions should be made by the Intercolonial to particular shippers, but where a large share of the freight receipts come from an industry like lumber it is manifestly unfair to unnecessarily hamper and harass the shipper.



"THE capacity of my mill," said Mr. George Williscroft, of Georgetown, B.C., "is 25,000 feet; spruce and cedar is my principal cut; ten hours counts a day's work. The equipment of the mill consists of double circular saws, each fifty-two inches in diameter, one twenty-four-inch edger, one Wilkin's balance gang with forty saws to cut half-inch lumber for boxes which is my principal business. I also have three planers and one stenciling machine for stamping box ends. The mill is situated in Big Bay, seven miles south of Port Simpson and 550 miles north of Victoria on the north-west coast of British Columbia. I have a steamer that I use for delivering lumber and towing logs. She carries 90,000 at each load."

* * * *

A prominent Quebec lumberman says that large quantities of southern yellow pine are being shipped to England and the continent for shoring up in the coal mines, for which purpose there had hitherto been a good demand for the inferior grades of Canadian white pine timber. The gentleman in question says that the yellow pine now going forward from the southern ports is sold at rates that can hardly pay freight and insurance. In recent numbers of the LUMBERMAN I have reported interviews with various Canadian lumbermen pointing out the extent to which southern pine is coming into competition with Canadian pine. The form of competition cited above is doubtless new to our readers generally. The cut prices at which the lumber is being sold bears out what has been previously stated in this page by Mr. T. Charlton and Mr. H. H. Cook.

* * * *

Who does not know Secretary Hill, of the Toronto Industrial Exhibition? In a peculiar manner he possesses that combination of intense activity and executive skill necessary to the important position he holds. I think of him at this time up to his eyes in work, bringing to completion the various plans that the management of the Industrial have made for the forthcoming fair, which is on the boards for September 5 to 17. We always expect big things of this exhibition, but in an especial manner, I am told, have arrangements been completed this year for a programme enlarged in many important particulars over those of previous years. To the manufacturers of the country this exhibition possesses special significance and I believe that they are prepared generally to recognize the place it occupies in helping to publish abroad in substantial and practical manner the resources and possible manufacturing and commercial strength of this Canada of ours. We have just completed the celebration of our twenty-fifth anniversary as a united Dominion. Without indulging in any nonsensical loyalty twaddle: Is not the time opportune to demonstrate by actual deeds the progress the country has made in this quarter of a century so lately closed? The Industrial is a strong helper to this end and for this reason we may all hope that the year 1892 will score the biggest success yet in its history. I have an idea that as Canadians we can afford to be more Canadian than is our every-day custom.

* * * *

At no time in the distinguished career of Mr. Gladstone has greater interest centered on the G.O.M. than during the month just closed. Where can history point to another statesman at the advanced age of eighty-three taking the foremost position in one of the greatest political battles that has ever been waged in Great Britain or any other country? And coming out on top too. But I stop here. This page eschews politics, or else, I may run my head, or some other tough substance, against a snag with more points to it than I might enjoy. Lumbermen, however, have a special interest in Mr. Gladstone as a feller of trees whose skill is not to be disputed by the cleverest Canadian woodman. What is the philosophy of tree felling with Mr. Gladstone? Mr. W. T.

Stead, of Review of Reviews fame, gives us a reason. "Think about something he must," says Mr. Stead, "for a mind so active will never doze off into lethargy excepting when he is asleep; and it was this necessity for finding some means of gaining complete mental rest which led him to cultivate the felling of timber. In all other modes of exercise there is room for thinking; cricket, football, riding, driving—in almost all of these there are spells during which the mind can forget the immediate object and revert to the subject from which it is necessary to have a complete change. In chopping down a tree, you have not time to think of anything excepting where your next stroke will fall. The whole attention is centered upon the blows of the axe; and as the chips fly this way and that Mr. Gladstone is as profoundly absorbed in laying the axe at the proper angle at the right cleft of the trunk as ever he was in replying to the leader of the Opposition in the course of a critical debate."

* * * *

The following talk in regard to American lumber interests in Canada came under my notice in conning a United States lumber journal the other day. I do not suppose that our friends over the way always get hold of the right end of a story. Sometimes I know they do not. But as a piece of lumber gossip which is passing current among American lumbermen I give the following as I find it, without note or comment, just now at any rate: "Michigan men are invading the Georgian Bay and other Canadian points for logs, but log owners over there have caught on, and are asking prices that tagger the mill men on this side. One of them told me that anything in the shape of a pine log is held at \$9 to \$9.50. "They just seem to have fixed that price on everything," said he, "although some lots are worth \$3 and \$4 a thousand more than others." The Arthur Hill Company, of Saginaw, bought 8,000,000 feet of fine logs at Garden River at \$9.50, and they are now being rafted across and manufactured at Cheboygan. A number of log owners who put in stock last winter for the market, have concluded to manufacture them in Canada, and Michigan men generally are willing to let them, considering the prices asked, holding that there is no money in logs at \$9.50. It costs about \$2 to raft them across the lake, and when the saw bill comes out and other expenses, there is nothing left, as the greater portion of the stock will not bring over \$13.50 to \$13.75 log run. A Saginaw river mill man, who is sawing Canada logs cut from limits owned by his firm, says it does not cut out like Michigan stock, and it brings tears to his eyes as compared with Cass, Tittabawassee and Tobacco river logs that have furnished his mill with timber in seasons past."

* * * *

Whether the middleman is a desirable quantity in the lumber trade of the country is a question that has been discussed at some length in these columns during the past two months. And whether ye editor in handling this subject has reached a final conclusion himself I am not so sure. It's a many sided question, and a good deal can be said pro and con. Ottawa lumbermen are facing it just now in practical fashion inasmuch that the millowners have disposed of the products of their several mills altogether to the middleman and when a buyer visits the capital he can deal with no one else. One Ottawa buyer interviewed on the question said: "For several years past the lumbermen have been selling very largely to the middlemen each year more and more of the total cut, but this season literally everything in the better grades has gone into their hands, and every year from this out such will likely continue to be the case. In selling to the middlemen the lumbermen are sure of ready cash, and save themselves the bother of selling in small quantities with all the bookkeeping that goes along with it. Of course it is to their advantage to do business that way, but it necessarily follows that the consumers have to pay higher rates, as they have to stand the middlemen's expenses and profits. The increase in price is due to scarcity. White pine, especially dry stuff, is very scarce both in the States and Canada and as a consequence the price has gone up with those who hold it. The South American market is this year better than for years back, and what with the demand from there and the scarcity, prices are more likely to increase than go down. In my opinion the present prices will

never fall again, even though the demand becomes less, for the reason that white pine is year by year growing less plentiful in the woods." A prominent middleman claims while consumers might in some cases pay more than if dealing at the mills, the "middle" business as now conducted is better for the lumber trade in every way. For instance fully \$50,000 is spent yearly in Ottawa by the middlemen in office and other salaries, while no less money is circulated by the millmen as a result of the "middling." In some cases the cost of lumber to consumers in the States is lessened, as they can buy from the middlemen there at the same comparative rates as they could from the lumbermen here, and at the same time save their railway fare and other expenses to and from Ottawa.

* * * *

It does not appear that the agitation for free lumber with United States lumbermen is likely to reach, in the near future, any further than the arena of public and personal debate, inside and outside of legislative halls, and of the various lumber organizations of the neighboring republic. This, however, is a preliminary condition of every great reform; and when the question is intelligently threshed out in this manner there is reason to expect that it may take a formative shape in legislation. The opposition to a free lumber measure, that prevails in some lumber sections of the States, more strongly than others, has been indicated at different times in these columns. I give here an interview with Representative Stout, of Michigan, who does not entertain the fears expressed by others that free lumber would mean the ruination of the United States lumber industry. Said he: "Our forests are fast disappearing. If we can save them by admitting Canadian lumber free, it would seem wise to do so. The individual holdings in my State are numerous. Ten persons own so much of Michigan hard timber and pine that if it were placed on either side of the 4,000 miles of Michigan railways it would so bound the line of vision, that a stranger would think that he was traveling through an impenetrable forest. One person holds enough timber to make a line two miles wide, the longest diameter of the state. So far as these holdings are pine they have added the first cost every year to the value, and many of them double their first cost each year for thirty years." Mr. Stout said that the pine holdings of Michigan are worth more than the improved farms. "Yet, every year," said he, "protests are offered here against taking off the tax on lumber. When, in 1871, a committee of Chicago builders and sufferers from the most disastrous fire on record came to ask for free material to erect their city, another committee, in Pullman sleepers and buffet cars, followed to ask that lumber should not be free, and it succeeded. I have always thought that whatever entered into the construction of the home should be free. Were I to suggest the best means of conserving the safety of the state I would find its strongest bulwarks in the home. No man who sleeps under his own roof can fail to have a previous interest in the good order and safety of the state. And what shall we say when the government, for any purpose whatever, proposes offering the paltry protective tax of \$1 on lumber? The committee which the lumber convention appointed to seek a hearing before the Ways and Means Committee of the House, protesting against taking the tax of \$1 per thousand from lumber, was composed of men who draw bank cheques every month running into the tens of thousands of dollars. They declare that the lumber interests will suffer if the tax on Canadian lumber is removed. Suffer what? It's large profits may be slightly reduced. If it is now \$5 per thousand feet, it may be only \$4, if Canadian lumber is made free. What a pity if a class which has made the most colossal fortunes of the century should have these profits slightly reduced!" He said that there is scarcely an acre of uncut pine in Michigan or Wisconsin which cost \$1.25 an acre in 1885, which has not increased in value 100 per cent. per annum on that first cost for thirty-seven years up to now, "and much of it," said he, "double that amount." "And yet the poor pine land holder must be protected against Canadian lumber. What effrontery!"

Advertising in CANADA LUMBERMAN pays.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE opinion given currency to, more than once, in these letters that Michigan pine is rapidly diminishing, finds fresh corroborative testimony constantly in the expressions of prominent lumbermen throughout the State. Opinions will differ regarding the time when the demolition of the last pine tree will have taken place, but all are agreed that at the longest this period is not far distant. Were it not for the supplies that are coming across from your side of the border to-day not a few large mills would find themselves without logs to keep running. A case in point is that of William Peters, of Bay City. His new bandmill will not commence running this year until about July 1, waiting the arrival of logs from Canada. It is claimed by one journal that Mr. Peters "owns enough Canadian timber to run his mill for the next fifteen or twenty years, and the mill was built for this purpose. An effort will be made not only to keep the mill busy the balance of the season, but to tow enough logs from Canada to afford sufficient stock for an early opening next year."

OUR HARDWOOD WEALTH.

A prominent authority on lumber matters believes that the future lumber interest of Michigan is in its hardwoods. He is reported to have said the other day: "The reign of King Pine in Michigan is on the wane, but the man does not breathe now who will see the time when the lumber industry will not be a great and prosperous business in Michigan, for when the pine is gone then the other woods will go to market, and they will enrich the people far more than pine has done, though their utilization will not create so many millionaires. In fact, the hardwood lands of Michigan are to-day the bonanzas of the future to the investor, large or small, as well as the settler and the poor man seeking a home, to whom these hardwood acres are what a father is to a child whom he supports and lets him have all he makes, for while he is carving out a home the land will give him a good living, and, if he is wise, when he gets the farm cleared he is comparatively rich, over and above his farm, the finest land the Almighty ever left out of doors, in a climate that is nature's own sanitarium, and his hardwood, which he has been able to sell at a good profit, has made him so." A local correspondent commenting on this opinion has sagely remarked: "It is a great pity that this idea had not obtained before thousands of acres of the finest hardwood timber in the country was ruthlessly sacrificed to the flames."

BITS OF LUMBER.

Very little is doing in shingles in the Valley, most of the mills being closed down for lack of logs until a week or two ago.

S. M. McLean & Co., of Bay City, have commenced running twenty-four hours, their work being principally on Canadian logs. They average 18,000,000 feet a season.

The rumour is revived that the Grand Trunk is to extend its line from West Bay City to connect with the Alger road. One statement is that the road will be built this summer, but this is unlikely.

Mr. Loveland, of the Saginaw Lumber and Salt Company, and the Emery Lumber Company, says they have three rafts on the way over. They have not lost a log this season. One or two rafts were blown ashore on the Bay shore, but no logs escaped. Those running logs from Canada are much gratified at the success attending log rafting across the lake.

Two local lumbermen, J. T. Hurst and O. E. Elsemore, are just now in the Georgian Bay district of your country looking over a tract of pine, containing about 250,000,000 feet, which they are likely to buy. If the deal is closed Mr. Hurst, it is said, will cut 75,000,000 feet of logs the coming fall and winter and raft them to the Saginaw River next season to be manufactured.

PICA.

SAGINAW, Mich., July 21, 1892.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

WITH little, if any, reservation I can write that lumbering operations in the Ottawa Valley partake of a decidedly improved character. Contrasted with the lethargy that has been the main constituent element of this important industry, for many moons, the transformation is very acceptable to the people here. And now that Parliament is adjourned and they are no longer called upon to divide their interests between matters political and the affairs of business, the interest in the lumber boom is all the greater.

Prices are firm; in fact, they are on the advance, and this is one condition that is favorable to a prosperous situation. Then sales are brisk. I may put the case a little stronger; pretty much all the lumber that the mills are capable of turning out this year is already sold. Of course it has not all reached the consumer; the middlemen are holding part of it. But those whose endeavour it is to make contracts with the mill-

owners direct, receive the one answer that stocks are sold out. Within the past six weeks it is computed that not less than 26,000,000 feet of lumber have been shipped to the United States and England. I am told that trade with the neighboring republic is very satisfactory. Mill-owners may be expected, after their long wait, to feel in good form over these improved conditions, and yet they are moving cautiously in all their transactions. As one millman has said: "We do not care just now for various reasons to rush things as we used to. We are satisfied if we do a quiet steady business."

LUMBER IN CANADIAN BOTTOMS.

A change has taken place in the ways of shipping lumber that from a Canadian standpoint has peculiar interest. This spring an organization known as the Ottawa Transportation Co., and including all the Ottawa forwarders, was formed. This concern made contracts with the mill-owners and middlemen, and have been doing about the whole of the carrying business this season. As a consequence a fleet of American bottoms, over twenty in number, that had heretofore controlled the larger part of the lumber trade, are lying here idle. Shipping by barges has been further curtailed from the fact that here, as elsewhere, more lumber is now-a-days shipped by cars. This plan is a convenience to small dealers, as a shipment of say 10,000 feet, at a cost of \$150 can be made by car, where a barge load would represent about \$3,000.

SITE FOR A PULP MILL.

Messrs. Masey & Lansing, of Watertown, N.Y., have been here inspecting the surroundings with the thought of establishing a pulp mill in this district. It is important to the success of such a mill that there should be abundance of water power, and of course there is no lack of this element here. Mr. Lansing when spoken to about the matter intimated that at their mills, three miles from Watertown, they were experiencing a difficulty because of lack of water power. If a pulp mill is established, and the probabilities point strongly in that direction, the turn-out of pulp would run about thirty tons per day. Questioned on the tariff Mr. Lansing said: "We are prepared to pay \$2.50 per ton at the outset for shipping the pulp to Watertown, with the probable ultimate result of building a large establishment in this city."

CASSELLMAN ESTATE.

The estate of the Cassellman Lumber Co., insolvents, has been disposed of under the hammer of Auctioneer A. B. McDonald. The principal purchasers are as follows:—

Stock and store amounting to \$74.41, sold at 32¼ cents to H. Allan, of Ottawa; 12,000 ties to Rathbun & Co., at 13 cents. 24,000 sawlogs to Rathbun & Co. at \$3.27 per 1,000 feet board measure; 12,577 logs, to Alexander McLennan, of Montreal, at \$3.30 per 1,000 feet board measure. 6,153 logs, at \$5.50 per 1,000 feet board measure; 9,000 logs to Alex. McLennan, Montreal, at \$5; the stock in the lumber yards amounting to \$1,437 was purchased by Beach & Co., of Winchester, for \$27½ cents on the dollar; 300 cords shingle butts, to Rathbun & Co., for \$1 per cord; 101 cords hemlock bark, Rathbun & Co., \$3.10 per cord; 2,000 cedar poles, valued at \$973, for 22 cents on the dollar, to Rathbun & Co.; shanty plant to Rathbun & Co. for 17½ cents on the dollar, valued at \$642. The manager's household effects and seventeen horses were sold to various purchasers with reserve.

AMONG THE LUMBER PILES.

Thackeray's new mill is nearly ready for operation.

Rochester Bros., whose head office is in this city, have taken out 60,000 logs in the Lake Huron district this season.

A large raft of timber, containing 109 cribs, the property of W. M. Mackey & Co., is on the way to Quebec, and there will likely be sold to English shippers.

A gang of about 100 shantymen who arrived down from the upper Ottawa a few days ago, report the drives coming along nicely. The first logs for the Chaudiere mills have reached the Des Jouchin rapids.

Perley and Pattee have been doing some big work with a Prescott band mill driven by water. It recently sawed in eleven hours: 4,047 feet, 1 inch; 85 ft., 1¼ inch; 11,723 feet, 1½ inch; 5,726 feet, 2 inch; 85,038 feet, 3 inch; a total of 106,619 feet.

A large-sized lumber deal was consummated here this month when the old Grier timber limits, more familiarly known latterly as the Pierce limits, were sold at the instance of the Bank of Montreal, to Shepard & Morse, of Boston. The extent of the limits is about 100 square miles; the purchase includes a large quantity of logs on the drive and in the boom. The amount of the transaction is from \$200,000 to \$215,000. The logs will likely be manufactured in Ottawa.

We have witnessed at the Cascades the largest jam that has occurred on the Gatineau for some years. The jam contains hundreds of thousands of feet of lumber, some hundreds of railway ties, two rafts of flat deals and a couple of cedars. The locality is a short distance below the Cascades station on

the Gatineau Valley railway. A gang of men have been hard at work endeavoring to make a clearing. They have a heavy contract on hand, but they are stout-hearted as well as stout-bodied fellows, accustomed to hard tasks, and will no doubt get there in this case.

OTTAWA, Ont., July 23, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

ALD. J. B. KENNEDY, president of the Brunette sawmills, has returned from his trip to Manitoba and the Northwest. "I've been on the move," said he, "for eight weeks and have travelled over about all the railway, main and branch lines, between here and Rat Portage. I stopped off at a great many places, visited all the principal places in Manitoba right down to the boundary line, went north as far as Edmonton in the Northwest, and took in the Spallumcheen Valley and other parts of the interior of British Columbia on my way home." He says that the way in which settlers are pouring into the Northwest is surprising, but the vast country swallowed them up so fast that where a train load of immigrants and their effects were unloaded one day, the next day all would have disappeared—gone to homesteads several miles from the line. Winnipeg, Brandon and all the towns were building fast, and large quantities of new ground are being broken. The crops are looking splendid. As far as lumber is concerned, the outlook for British Columbia lumber is about the same as last year, the freight rates to points in Manitoba being against us in comparison with Rat Portage and the big mills east of Winnipeg, while a number of small mills on the mountains enter into the competition in the Northwest. This is for the poorer class of lumber, but, as for the best quality, they can't approach this province.

A CANADIAN INVENTOR.

An improvement in band saws recently perfected by Mr. J. N. Kendall, late of Ottawa, and builder of the Maclaren-Ross mill here, will be of interest to LUMBERMAN readers. The improvement consists in the saw being so shaped as to admit of inserted teeth. The saw with which the experiments were made is a 17-gauge, and has 129 teeth, which can be changed in fifteen minutes. It has been running about two months and doing well. Not a tooth has loosened nor any trouble whatever been experienced. The testing of the saw on rough and knotty timber and logs with many barnacles on them has shown no weakness in the saw. The inventor is on the lookout for a capitalist or capable manufacturer who will join him in placing the invention on the market.

COAST CHIPS.

Morton Bros., Nicomeke, contemplate selling out to Mr. Melvin.

The Royal City Planing Mills have recently added to their plant three shingle machines of new design made by a local manufacturer and containing several alterations and improvements that make them better suited to British Columbia timber.

Grant and Kerr, of Ladner's Landing, and W. Fortier and Son, of Mission City, are putting in new and more powerful boilers, engines and wood-working machinery. The latter have signed a contract for the delivery of 500 cedar doors to be delivered in six months from June 1.

Boat builders of New Zealand are delighted with a supply of oars sent from this province by Cassady and Co. They have about come to the conclusion that there is nothing like the spruce of British Columbia for oars. New Zealand and Australia have no wood suitable for oars, and these are all imported from England in the finished state. A fair trade in this article is likely to be worked up here.

NEW WESTMINSTER, B.C., July 18, 1892.

THE SECRET OF IT.

THE superintendent of a company which sunk \$60,000 in learning how to successfully dry maple flooring, says: "The trouble ordinarily with kiln drying hardwood is that it is not kept damp enough. Kiln makers tell us that sufficient moisture is introduced by the fan. That's wrong. Now, every day we stop the fan and, for an hour, turn steam into the kiln. Lumber should dry from the center out, and by keeping the outside sufficiently damp while it is so drying, so it will not split, is what gives us this perfect lumber."

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

THE NEWS.

ONTARIO.

—Henry Helmka, sawmill, etc., Springfield, has sold out.

—The Rathbun company are making an addition to their sash and door factory at Deseronto.

—Vigar Bros., sawmill, Port Arthur, are claiming exemption from taxation from the court of revision.

—Toronto failures of the month are: W. H. Drayton, Josiah Hall, and G. G. Kerr. All are small.

—Shaw and Douglas, of Kemptville, whose mill was lately destroyed by fire, will push ahead with rebuilding.

—Business is so brisk at John Milne & Son's planing mill, Huntsville, that the factory will be kept running night and day.

—An unusual quantity of lumber, the property of Bronson & Weston, of Ottawa, is on their new piling grounds at Rockland.

—The lumber factory of J. B. Miller, of Toronto, suffered damages to the extent of \$3,000 by fire a fortnight ago. Fully insured.

—W. B. Bennett, of Harley, is removing his mill to the fifth concession of Burford, where he has lots of custom logs waiting cutting.

—At McLaren's mills, in New Edinburgh, booms of logs were broken by a hurricane and piles of lumber scattered in every direction.

—Logs that had been hung up for the season on the Trent, Moira and other rivers of Central Ontario are fast reaching their destination.

—It is stated that a number of agents of American firms are in the Georgian Bay district bargaining for large quantities of spruce for the American mills.

—Several thousand logs are at present running the Government slide at the Chaudiere, being the property of the Hawkesbury Lumber Co., of Grenville.

—Klock's Lumber is all over the slides and is now anchored at the Queen's wharf. It makes one of the largest rafts to go down the Ottawa river this season.

—Geo. Cormack, of Whitby, is importing British Columbia fir to this province. Boards are thirty-two feet long and three and a-half feet wide, free from knots.

—Mickle, Dymont & Sons are constructing a switch to their proposed mill site at Severn Bridge. They also purpose building a shingle mill for immediate operation.

—The largest load of timber ever carried on the inland lakes was delivered at Garden Island last week by the schooner Ceylon. It consisted of 67,397 feet of pine from Spanish River.

—The tug Summer recently passed through Sarnia with the largest raft of long timber that ever passed through the St. Clair River—about 3,000,000 feet. There were over 325 cribs, containing over 6,000 logs.

—It is estimated that 3,000,000 feet of logs will be brought down the Ottawa district streams this season, of which 2,000,000 are coming down the Ottawa proper. The value of the total shipment will be over \$5,600,000. Much of this timber is what was left in the woods last season.

—The Ontario Government give notice through the LUMBERMAN advertising columns that a large number of timber limits in the Nipissing, Algoma, Thunder Bay and Rainy River districts will be sold at public auction October 13, at the department of Crown Lands, Toronto.

—The Peterboro Examiner of a week ago says that "a drive of logs consisting of 230,000 pieces, the property of the Rathbun Co., of Deseronto, and the Gilmour Co., of Trenton, is passing down the Trent River now. Over 100 men are employed on the drive, which is one of the largest that ever passed through these waters."

—The applicants to the Dominion Government for a charter for the Toronto and British Columbia Lumber Co., are: John White, of Roslin; Robert Thomson, of Hamilton; John Davidson, of Barrie; Thos. John Hamill and John Stinson Hatton, of Toronto; John Alexander Strathy, of Barrie; William Bell, of Guelph; Jonathan Henderson, of Barrie; Henry Hatton Strathy, of Barrie, and Ernest V. Bodwell, of Victoria. The capital stock of the company is \$1,000,000. The chief place of business is to be at Toronto.

—Lumbering operations at Port Arthur are being conducted on a much larger scale than at any previous time in the history of the district. Large contracts have been let by the Canadian Pacific Railway Company for ties, which are being taken out between here and Bat Portage. The trade in cedar, for paving blocks, fence posts, telegraph poles, ties, piles, and as square

timber for bridge and culvert work, is largely increasing. Three firms have camps on the line of the Port Arthur, Duluth & Western Railway, which are expected to cut 8,000,000 feet of pine, which will be sawed in the district for the trade of Manitoba and the Territories.

QUEBEC.

—The brigantine Alaska, of Quebec, owned by Maguire and Co., has sailed for Las Palmas, Canary Islands, laden with lumber. This is the first export of lumber for the Canaries from Quebec.

—The Quebec & Lake St. John Railway Co. has purchased a large tract of the most valuable timber land on the continent, situated in the northwestern part of Quebec province. The railway will be extended to the tract, which is 500 miles inland.

—The old E. B. Eddy lumber yards in Hull, which have for years been stripped of lumber are rapidly assuming their former appearance. Since the ground was taken over by Messrs. Buell, Orr & Hurdman a vast quantity of all kinds of lumber has been piled there.

NEW BRUNSWICK AND NOVA SCOTIA.

—Gideon D. Reid, lumber, Hopewell, N.B., has assigned.

—Lumbermen hope, as a result of recent heavy rains, to relieve some 12,000,000 feet of logs in a jam near Aroostook Falls, N.B.

—Lewis and Starret's steam sawmill at Pleasant Hill, Economy, N.S., destroyed by fire with a considerable quantity of lumber.

—The Keswick Lumber Company intends erecting a new sawmill at Upper Keswick, N.B., the coming fall. About 1,500 cords of hemlock will be peeled by this concern this year. The bark will be shipped to the United States.

—An important patent suit which will interest mill owners and lumbermen is pending in the equity court of New Brunswick. The suit is brought by H. A. Connell, Woodstock, against John Fraser, Woodstock, for the infringement of the patent of the Kearney shingle jointer, patented in 1886. The Kearney jointers are now used in nearly all the shingle mills in Canada. Connell Bros. obtained assignment of the patent, and allege that the Union Foundry Company is engaged in the manufacture of the jointers. This suit will test the validity of the patent.

BRITISH COLUMBIA.

—The capital stock of the Columbia River Lumber Company (Limited) is increased from \$30,000 to \$250,000.

—Frank McLeod has purchased a sawmill plant and intends to erect a mill on his property at Chemainus. He has some fine timber limits. The mill will be running this fall.

—Timber piracy to a greater or lesser extent is being carried on in different parts of this province. A case came before the New Westminster courts a few weeks ago where four men were charged with cutting cedar timber for shingle bolts, with intent to steal the same. The men had been arrested the previous day by Sheriff's Officer Patterson in the act of cutting the timber, but they disclaimed having cut any more than what was actually found piled up on the ground at the time, although there were abundant indications all around of extensive cutting having been done there. The land is the property of J. W. Horne, M.P.P., and is considered worth \$50 an acre, the timber being very valuable. It is said that the business with many has come to be looked upon as perfectly legitimate, or at least one which usage has sanctioned. The authorities, however, assert their determination of putting an end to it.

—Ship-owners are holding for higher freight rates for Australian ports, but shippers do not seem willing to accede to their demands. Among recent arrivals are the Hindostan, 1,543 tons, at Moodyville to load for Valparaiso on owner's account. The Palawan sailed for Iquiqui and the Leonor for Valparaiso on July 8. The Colorado, now on the way from San Francisco, will probably load a cargo for South America. The Zebina Gowdy, 1,087 tons, has been chartered to load at Vancouver. There are three vessels, aggregating 2,088 tons, loading at British Columbia ports, all for Valparaiso. Quotations are as follows for cargo lots for foreign shipment being the prices of the Pacific Pine Lumber Association: "Rough merchantable, ordinary sizes, in lengths to 40 feet, inclusive, \$9 per 1,000 feet; rough deck plank, average length 35 feet, \$19; dressed flooring, \$17; pickets, \$9; laths, 4 feet, \$2.

MANITOBA AND THE NORTHWEST.

—John Irwin, builder, etc., Minnedosa, has sold out to G. F. Burgess.

—Dennis Coghlan was drowned while rafting near Moore and McDowall's mills, Edmonton, overbalancing himself on the logs.

—Brine & McDonald, bankers, lumber dealers, etc., Fort Qu'Appelle, Assa., have dissolved. The business will be continued by D. H. MacDonald and Co.



FIRES.

Shaw and Dougall's sawmill and planing factory, at Hallville, Ont., destroyed by fire.

Captain Robinson's sawmill at Fisher's River, on Lake Winnipeg, has been destroyed by fire with all the winter cut of logs.

The Rathbun Co. have suffered a loss of several thousand dollars by fire in their lumber yards at Kingston, Ont. Insured.

G. F. Allen's barrel factory, and Kenney, Haley & Co.'s sash and blind factory, including much valuable machinery, at Yarmouth, N.S., were destroyed by fire. Loss \$50,000; insurance \$20,000.

CASUALTIES.

George Turner slipped from a boom at Trenton, Ont., and was drowned.

Leon Lachapelle, a chopper, fell dead while cutting a tree at North Vancouver, B.C.

John Neil had his right arm cut off in McGugan's sawmill, St. Joe's Island, Algoma, Ont.

At Centreville, N.B., a young man named Simonson, who runs a sawmill, was drowned while booming logs.

A. G. Scott, a workman in McCaffrey's planing mill, Huntsville, Ont., has had three fingers terribly lacerated.

A shantyman named Laroche, working on the Gatineau, is suffering from a broken leg. He slipped on a lot of logs.

Moses Burt, who worked at Brewster's mill, near Fredericton, N.B., had his arm so badly injured that it had to be cut off.

Arthur Lacroix, a mill hand at Gagnon's sawmill, Templeton, Que., loses two fingers by coming in contact with a circular saw.

Norman Pubble received a compound fracture of the right arm through being caught by a belt in a Campbellford, Ont., mill.

While running an edger in Perchbecher's sawmill, Williamsford, Ont., Fred Evers had the three first fingers and thumb of his right hand cut off.

Doman Gogang, working at David Jackson's mills, near Tidnish, N.S., has had one hand amputated because of injuries received with a circular saw.

Joseph Valiquette, a shantyman who lives near Montebello, Que., had his legs severely crushed while engaged in driving logs. One leg may need to be amputated.

Henry McDowell Hodgins, aged twenty-one, eldest son of Mr. Edward Hodgins, of Yarm., was drowned at the sawmill of Hodgins Bros., of North Clarendon, Ont.

An employee of Murray Bros.' mill, North Bay, Ont., had his left leg almost severed and the right foot and thigh severely cut and bruised while working around a saw.

Solomon Peters, colored, of Kingsclear, N.B., was rafting logs some distance above Fredericton. He went on one log into the middle of the river, rolled off and never reappeared.

A lad of thirteen years, Patrick McNeil, was killed at Burton Bros.' mill, Byng Inlet, Ont., while endeavoring to cant a log to the large circular. His body was severed in two in an instant.

A lad named Charles Leduc was severely injured in McCray's mill, on the Ottawa, while engaged working around a band saw. He loses one finger and may have to have two others amputated.

A man named Charles Scott, forty years of age, in the employ of the Hastings mill, at Vancouver, B.C., had his right foot caught between the line rollers of the lumber carriage and suffered terrible injuries.

While Donald Caverly, of Madoc, Ont., was unloading shingles at a house one of the bunches fell on him. The second day after the accident he was taken with hemorrhage of the lungs, resulting in death.

David Boggs, a partner in Boggs Bros.' woodyard, Toronto, lost his life by becoming entangled with a circular saw. He was literally sawn in pieces before the workmen noticed the accident. He was a widower with six children.

Nellie, the six-year-old child of Mr. Thomas Conlon, lumber merchant, Thorold, was burned so badly that she lived only about four hours after the accident. The child was playing with fire when her clothing caught and was burned off her body before assistance could reach her.

TRADE REVIEW.

Office of CANADA LUMBERMAN, (July 30, 1892.)

THE GENERAL SURVEY.

THE lumber situation in Canada, taken as a whole, shows signs of improvement. Encouraging conditions of the Ottawa district are very fully related in our Ottawa letter on another page. It is estimated that 3,000,000 logs will come down the Ottawa district this summer. Three million logs, at an estimated average yield of 125 feet, board measure, per log, will give a total board measure of 375,000,000 feet for all the mills of the Ottawa district. This quantity of sawn lumber, at an average price of \$15 per 1,000 feet, will mean a turnover of capital large enough to prove of substantial benefit in levelling up the depression of former years. Of the 3,000,000 logs coming down a fair percentage belongs to those left over last season.

In the Georgian Bay districts lumber operations are active, and while it is true that large quantities of the logs cut will be manufactured outside of our own country it is to be remembered that up to the point of manufacturing our people reap the advantage of all the labor that is placed on the logs and this is considerable. At the same time the mills are as busy this season as they have been for some years past, and probably an increased business is being done. Prices have stiffened and at the increased figures good sales are being made. Ottawa dealers report enquiries brisk from Brazil and South America where very little lumber has been sold for nearly two years.

The local situation in Quebec and British Columbia is noted further on. In New Brunswick the improvement is less marked than in some other places. A good local trade is being done in Manitoba accentuated by the large influx of emigrants.

So far as Ontario is concerned business is quiet. Representatives of the leading lumber firms report sales slow and small. The favorable outlook of the growing crops, however, has given good hope of a satisfactory fall trade. Narrowing down the local situation to Toronto the chronic condition of many months back continues. Building permits of the past six months amount to only \$1,310,000, which is but little more than half those of the same period in 1891, for then they were \$2,516,000.

QUEBEC.

The figures which we give below showing the quantity in cubic feet of square timber measured at the port of Quebec during the past six months as compared with the corresponding period of last year indicate an encouraging increase in lumber operations:—

Table with 3 columns: Timber type (Waney white pine, White pine, Red pine, Oak, Elm, Ash, Birch and maple), 1891 quantity, 1892 quantity.

Timber freights continue to rule disastrously low, the latest quotations being Quebec to Cardiff: Timber, 17s., deals, 40s. Quebec to Ireland: Deals, 42s. 6d. A vessel was taken to load deals at St. Thomas, for an Irish port, on private terms, said to be 42s 6d. Lumber from Quebec to Burlington, Whitehall and Plattsburg, \$1.50 a thousand; lumber to New York, \$2.50 a thousand; from Batiscan to Burlington, Plattsburg and Whitehall \$1.40 a thousand.

BRITISH COLUMBIA.

The general outlook on the Coast is quiet, the mills running about three-quarter's time. A number of shipments to South American ports are recorded in our news columns, and the expectation is that later in the year trade in this direction will have increased. Local trade is on the whole satisfactory and prices remain unchanged.

UNITED STATES.

Trade reports from the principal lumber centres do not tell of any large distribution of lumber. The labor troubles in New York continue and are having a depressing influence on business, which is being felt at points outside of the metropolis. The heavy rains of June have changed any calculations based on a short crop of logs. Not only has the cut of the past winter

been pretty generally secured all over the country, but large quantities of logs that were supposed to be hopelessly hung up have also come forward. Spruce logs in Maine have met with equally generous favor, and where a month ago it did not look as though the drives could bring down more than fifty per cent. of the logs they are all now safe in hands. The theory in some circles is that this circumstance will have the effect of rendering prices more easy than for a few months past; but this is to be remembered: good lumber is lamentably scarce everywhere, and in Michigan and Wisconsin, as in our own country, the season's mill cut has been extensively sold ahead of production.

FOREIGN.

If the words "slight improvement" are used to designate the conditions of the British lumber market it is the most that can be said. Denny, Mott & Dickson, of London, Eng., have this to say in their last wood market report: "The past six month's business has been of a very depressing character in most departments of the timber trade, owing to consumption generally having been very unsatisfactory. The consequent strain on large holders has been severe, as heavy stocks have hung on hand and charges and interest accumulated; whilst small holders, who look for a quick turnover, must have been sorely tried. Low freights, and the decline in the general business of the country, do not promise a very brisk timber market for the remainder of the year. On the other hand, the removal of disturbing features in the labor market, and the diminution of reckless competition, through the quiet but steady squeezing-out of unsound traders, combine to encourage a reasonable hope of better markets for the closing months of the year." Of Canadian timber this firm write: "Although demand has been very moderate during the half-year, all landed stocks of good Waney have been exhausted, and a moderate importation of the new season's timber will be welcome. The tendency of long waney to displace square pine is growing, being greatly favored by the ship-building consumers." Indications grow pointing to an improvement in business in South America at an early day.

TORONTO, ONT.

TORONTO, July 30, 1892.

Table with 3 columns: CAR OR CARGO LOTS (1 1/4 in. cut up and better, 1x10 and 12 dressing and better, etc.), Price per 1000, Price per 100.

YARD QUOTATIONS.

Table with 3 columns: Mill cull boards and scantling, Shipping cull boards, Scantling and joist, etc., Price per 1000, Price per 100.

MONTREAL, QUE.

MONTREAL, July 30, 1892.

Table with 3 columns: Pine, 1st qual., per M, Pine, 2nd, Pine, shipping qual., etc., Price per M, Price per 1000.

OTTAWA, ONT.

OTTAWA, July 30, 1892.

Table with 3 columns: Pine, 1st qual., per M, Pine, 2nd, Pine, shipping qual., etc., Price per M, Price per 1000.

ST. JOHN, N.B.

ST. JOHN, July 30, 1892.

Table with 3 columns: DEALS, BOARDS, SCANTLINGS, ETC. (Spruce deals, Pine, Deal ends, Scantling, etc.), Price per 1000, Price per 100.

QUEBEC, QUE.

QUEBEC, July 30, 1892.

Table with 3 columns: WHITE PINE—IN THE RAFT, RED PINE—IN THE RAFT, OAK—MICHIGAN AND OHIO, ELM, ASH, BIRCH, TAMARAC, STAVES, DEALS, Price per 1000, Price per 100.

BOSTON, MASS.

BOSTON, Mass., July 30.—The apprehended log famine hinted a month ago has no longer an existence, the heavy rains of June bringing the logs along with a rush. A particular interest all the same hovers around spruce. A few weeks ago an attempt was made to form a combination to keep up the prices that had become very firm because of the anticipated scarcity of logs, but it would not work. Now have come rumors of an attempt at Bangor to create a corner in spruce logs. But with the stock of logs that have come down the streams this does not seem likely. Prices have changed some, as will be observed by an examination of the list below.

Table with 3 columns: EASTERN PINE—CARGO OR CAR LOAD, WESTERN PINE—BY CAR LOAD, PRICE BY CARGO, Price per 1000, Price per 100.

OSWEGO, N.Y.

OSWEGO, N.Y., July 30.—The market has evidenced no particular change during the month. Prices are unaltered.

WHITE PINE.

Table with 3 columns: Three uppers, 1 1/4, 1 1/2 and 2 inch, Pickets, No. 1, cutting up, etc., Price per 1000, Price per 100.

THE LUMBER TRADE ABROAD.

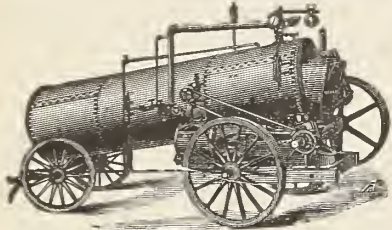
A Port Huron (Mich.) factory is said to be making underclothes from wood fibre, which are equal in all respects to those made of wool.

Half of the best part of the town of Christiansand, Nor., has been burned and 356 of the principal houses and numerous public buildings, including large sawmill and extensive stock of timber.

The largest band sawing machine in the world has recently been completed in England and sent to Tasmania. The machine can saw through a maximum depth of seventy-five inches, and the carriage will accommodate logs fifty feet long and weighing about fifty tons

The millionaire lumber firm of Wright, Davis and Co., of Duluth, Minn., have signed papers disposing of one of the largest tracts of pine land ever closed out in the west. The firm owned 4,000,000,000 feet of standing timber on the Swan river, a tributary of the Mississippi. This has all been sold to the Pine Tree Lumber Company, a Weyerhansen concern, for a sum approximating \$1,300,000.

The MONARCH BOILER (Patented) and HERCULES ENGINE



Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.

The 70 horse power can be taken over the roughest roads, or into the forest, and set up as easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

Write for circulars.

ROBB ENGINEERING CO., LTD.

Successors to A. ROBB & SONS, Amherst Foundry and Machine Works. Amherst, N.S.

ESTABLISHED OVER 40 YEARS.

Auction Notice

Important Sale of Timber Limits

THE RECEIVERS OF THE ESTATE OF the late David Moore will offer for sale, at public auction, on

Thursday, 11th day of August, 1892

At the Russell House, City of Ottawa, at the hour of three o'clock in the afternoon, the following valuable Timber Limits, known as limits belonging to the estate of the late David Moore, situate on the Kippewa River, and designated as follows:

Kippewa Berth No.	46,	No.	239 of	1873-4
" "	47,	" "	240 "	" "
" "	56,	" "	237 "	" "
" "	57,	" "	238 "	" "
" "	62,	" "	505 "	" "
" "	63,	" "	304 "	" "
" "	64,	" "	506 "	" "
" "	65,	" "	297 "	" "

Area 50 square miles each.

For terms and conditions of sale apply to any of the Receivers, Ottawa.

The purchaser will be bound to take the supplies on each limit according to schedule and valuation.

The above limits will be positively sold without reserve.

Intending purchasers making explorations can rely upon this sale taking place as advertised.

A. B. MACDONALD, Queen's Auctioneer, etc., Ottawa.

THOS. H. KIRBY, C. H. CARRIERE, P. LARMONTH, Receivers.

C. A. LARKIN
 93.95.97. NIAGARA ST. DISCOUNTS
 WHOLESALE M'FR
 TORONTO, CAN.
 DOORS & GLAZED WINDOWS

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 12th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

FOR SALE

AT KINGSTON FOUNDRY & MACHINERY Co. (Limited), two Sawmill Engines, cylinders 13 x 21, fly-wheel 9 ft. 6 in. drain, driving pulley 7 ft. x 18 in. face—new—at a bargain.

WHITE BIRCH AND SOFT ELM WANTED.

LUMBERMEN HAVING 2-IN. RED BIRCH and 1-in. dry Soft Elm, firsts and seconds, for sale, please communicate with W. W. BROWN, 202 Main Street, Buffalo, N.Y.

STEEL RAILS, ETC.

SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways. 20 pair wheels and axles, all in good second-hand condition, very cheap

JOHN J. GARTSHORE,

49 Front Street West, Toronto.

ENGINE AND PLANER FOR SALE

A 20 TO 25-H.P. LEONARD ENGINE AS GOOD as new, is at present running sawmill, cutting 5,000 to 8,000 per day of ten hours. Also a 24 inch planer and matcher in good order. Would exchange planer for a large engine.

ROBT. BELL, JR., Box 35, Hensall, Ont.

WANTED FOR CASH Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds, must be of uniform color; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Can also use Soft Elm Logs 20 in. and over in diameter for export; Red Birch Lumber, 1 and 1 1/2, all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long, good squares. Address all particulars as to dryness, quality, quantity on hand and price, to P. O. Box 2144, New York, N.Y.

TIMBER BERTH FOR SALE

BERTH NO. 35, CONTAINING 36 SQUARE miles, situated on French River, within about twelve miles of Georgian Bay. There is a large creek and other smaller streams crossing the same which empty into the French, and containing large quantities of Pine Timber. Has never been lumbered on.

Apply to EXECUTORS OF JOHN BROWN (deceased) Room No. 8, Drake Building, Easton, Pa.

Timber Limits

THOSE WISHING TO BUY OR SELL Canadian Pine or Spruce Timber Limits will please send particulars to

LEONARD G. LITTLE, Room 13, Temple Building, Montreal.

NEW & 2ND
MACHINERY
 ILLUSTRATED CATALOGUE FREE
 H.W. PETRIE
 TORONTO, CANADA.

WILLIAM FOSTER

Lumber and Commission Merchant

RECEIVER AND FORWARDER OF LUMBER, LATH AND SHINGLES ... CORRESPONDENCE SOLICITED ... OWEN SOUND, ONT.

J. D. SHIER

MANUFACTURER OF Lumber, Lath & Shingles BRACEBRIDGE, ONT.

SHINGLE MILL FOR SALE

SITUATION :

The Tretheway Falls Shingle Mill is new, built 1891, on the South Branch of the Muskoka River, 5 miles from Bracebridge, near South Falls switch N. & N.W. R.R. With the mill are 5 acres of land, large boarding house, team horses, wagon, sleighs, etc., etc., in fact complete equipment for mill and lumber camp.

MACHINERY :

Consists of Little Giant Luffel Wheel (60 horse power), Boss Shingle Machine, Jointer, Splitter, Drag, Butting and Knot Saws; Endless Chain Burner, Bull Wheel, etc., etc. Building is 30 x 40 heavy frame, with room and shafting placed for second shingle machine. Belting complete and everything in good running order. Circular saw could be added with small expense.

TIMBER :

Is abundant for 50 miles above the mill on the waters of the South Branch—many townships being yet owned by the government—besides thousands of acres of deeded pine, four or five thousand acres of which can be bought immediately. There is also about 400,000 feet of timber at mill which can be purchased with it, so that buyer can commence cutting at once.

The estate must be wound up, and will bear the closest examination. For further information, address

THE CANADA LUMBERMAN, Toronto, Ont.

J. J. TURNER

.. Sail, Tent and Awning Maker .. 251 George St. and 154 King St. PETERBOROUGH

Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed. Every description of Lumbermen's Supplies and Waterproof Clothing.

NORTH SHORE NAVIGATION CO. ROYAL MAIL LINE

To Sault Ste. Marie and Georgian Bay Ports

STRS. CITY OF MIDLAND, CITY OF LONDON, FAVORITE AND MANITOU

Running in connection with the G.T.R. and C.P.R., will sail as follows:—

The CITY OF MIDLAND and CITY OF LONDON will leave Collingwood every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same days at 10.30 p.m. after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and calling at intermediate ports to Sault Ste. Marie.

Steamer FAVORITE will leave Collingwood Mondays and Thursdays after arrival of morning trains for Parry Sound, Byng Inlet, French River and Killarney, connecting there with above line of steamers for the "Soo." Returning will make close connection at Midland on Wednesdays and Saturdays with trains for the south and steamer MANITOU for Parry Sound.

Steamer MANITOU will make regular trips from Penetanguishene, connecting with trains from the south, only at Midland on Monday, Wednesday, Thursday and Saturday for Parry Sound, connecting there with Steamer FAVORITE for Byng Inlet, French River and Killarney, where connection is made with above "Soo" line of steamers.

For tickets and further information apply to any agents G.T.R. or C.P.R., or to

C. E. STEPHENS, W. J. SHEPPARD, Sec.-Treas., Collingwood | Manager, Waubausene

Rochester Bros. : : COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

E. STEWART, D.L.S.

DEALER IN

Timber Limits

IN ONTARIO, MANITOBA AND BRITISH COLUMBIA

CORRESPONDENCE SOLICITED

OFFICE, 24 MANNING ARCADE

KING ST. WEST

TORONTO, ONT.

... THE ... FLINT & PERE MARQUETTE RAILROAD

FROM

Port Huron and Detroit

Is the Short Line to

SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)

MT. PLEASANT, CLARE, REED CITY

BALDWIN, LUDINGTON, MANISTEE

AND

MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company's line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from NEW YORK MONTREAL BUFFALO TORONTO

to ST. PAUL, DULUTH and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and a great deal of information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., General Manager. W. F. POTTER, Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

GENERAL OFFICES: SAGINAW, MICH.



AUCTION SALE

Timber Berths

DEPARTMENT OF CROWN LANDS

(WOODS AND FORESTS BRANCH)

TORONTO, 27th June, 1892.

NOTICE IS HEREBY GIVEN THAT, UNDER Order in Council, Timber Berths as hereunder in the Nipissing, Algoma, Thunder Bay and Rainy River districts, viz.: in Biggar, Butt, Finlayson, Hunter, McCraney, McLaughlin, Paxton, Peck, and the northerly portion of Berth Forty-nine, lying South and West of the Wahnapiatae Lake, all in the Nipissing district; the townships of Lumsden and Morgan, and a small portion of territory lying North and West of Pogomasing Lake, in the Algoma district; Berths One and Seven, Thunder Bay district; and Eleven, Twenty-seven, Thirty-six, Thirty-seven, Sixty-four, Sixty-five, Sixty-six, Sixty-seven, Sixty-eight and Sixty-nine, Rainy River district. Will be sold at Public Auction on Thursday, the Thirteenth day of October next, at One o'clock p.m., at the Department of Crown Lands, Toronto.

ARTHUR S. HARDY, Commissioner.

NOTE.—Particulars as to locality and description of limits, area, etc., and terms and conditions of sale, will be furnished on application personally or by letter to the Department of Crown Lands.

No UNAUTHORIZED ADVERTISEMENT OF THE ABOVE WILL BE PAID FOR.

WHEN YOU BUY

SCRIBNER'S LUMBER AND LOG BOOK

You get the best, most complete and useful table book for the measurement of

Lumber and Logs

Ever Published.

- - Over One Million Sold - -

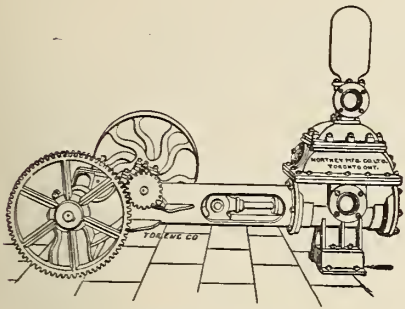
Calculations are given showing the number of feet board measure contained in various sizes of logs by DOYLE'S RULE, besides many other tables useful for lumbermen and others.

Mailed to any address on receipt of 35 CENTS.

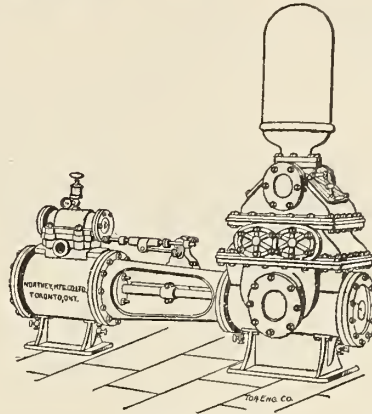
Address

THE CANADA LUMBERMAN, Toronto, Ont.

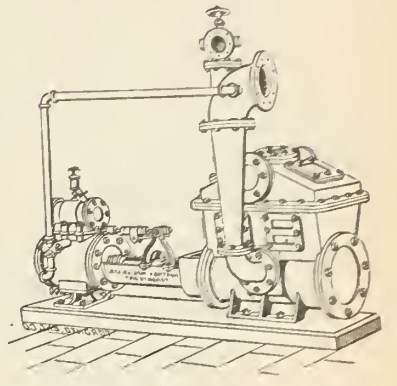
DUPLEX AND SINGLE STEAM AND POWER PUMPS



POWER PUMP



FIRE PUMP



INDEPENDENT CONDENSER

NORTHEY MFG. CO., Ltd., TORONTO, ONT.

Representative Lumber Manufacturers and Dealers

Town	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 26 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Circular, 3m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Steam, Circular, 40m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 16m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Byng Inlet, Ont.	Utterson	Georgian Bay Consol. Lumber Co.	Sawmill, Pine, Hemlock, Birch	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Little Current, Ont.	Sudbury	Charlton, J. & T.	Sawmill, Pine, Ash, Birch, Oak, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds. made to specification	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakey, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Montreal, Que.	Montreal	Roberts, Joseph & Pills	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m

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- ONE 8-H.P. FIRE-BOX BOILER.
- ONE 6-H.P. FIRE-BOX BOILER.
- ONE 6-H.P. UPRIGHT LEONARD BOILER.
- ONE 4-H.P. UPRIGHT MARINE BOILER.
- ONE 12 x 16 SLIDE-VALVE BECKETT MAKE engine.
- ONE 9 x 12 SLIDE-VALVE MORRISON MAKE engine.
- ONE 6 1/2 x 9 SLIDE-VALVE COPP BROS. make engine.
- ONE 5 1/2 x 9 SLIDE-VALVE BECKETT MAKE engine.
- ONE THREE-HORSE LEONARD MAKE engine.
- ONE 25-H.P. WATEROUS MAKE UPRIGHT engine.
- ONE 6-H.P. COPP BROS. MAKE UPRIGHT engine.
- ONE COWAN & CO, MAKE LARGE SIZE planer and matcher, used only eighteen months.
- ONE AMERICAN MAKE PLANER AND matcher in good order.
- TWO 34-INCH WHEELS BAND SAWING machines.
- ONE THREE-SIDE MOULDER, GOLDIE & McCulloch make.
- ONE ONE-SIDE MOULDER IN GOOD ORDER.
- ONE BLIND SLAT TENONER
- TWO UPRIGHT SWING SHINGLE MACHINES with jointer.
- ONE WATEROUS SELF-ACTING SHINGLE mill and jointer.
- ONE WATEROUS LATH MACHINE, THREE saws.
- ONE GOLDIE & McCULLOCH MAKE double cope tenoning machine, used eighteen months only.
- TWO PONY PLANERS, 24-IN., WITH COUNTERSHAFTS, Cant-Gourlay's make, Galt.
- ONE SWING CUT-OFF SAW.
- ONE WOOD FRAME TENONER WITHOUT copes.
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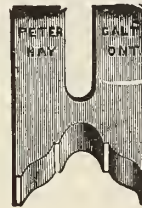
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One-side Moulding Machine; American make
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New Improved Pony Planer; McGregor, Gourlay & Co., makers
Pony Planer, 20-in.; McKechnie & Bertram, makers
New Improved Pony Planer, 24-in.; Cant Bros. & Co., makers
Pony Planer, New Improved; McGregor, Gourlay & Co., makers
Pony Planer; Cant, Gourlay & Co., makers

Pony Planer; Cant Bros. & Co., makers
Pony Planer, 30-in.; Major Harper, maker
Pony Planer, 20-in.; McKechnie & Bertram, makers
Pony Planer, 24-in.; Frank & Co., makers
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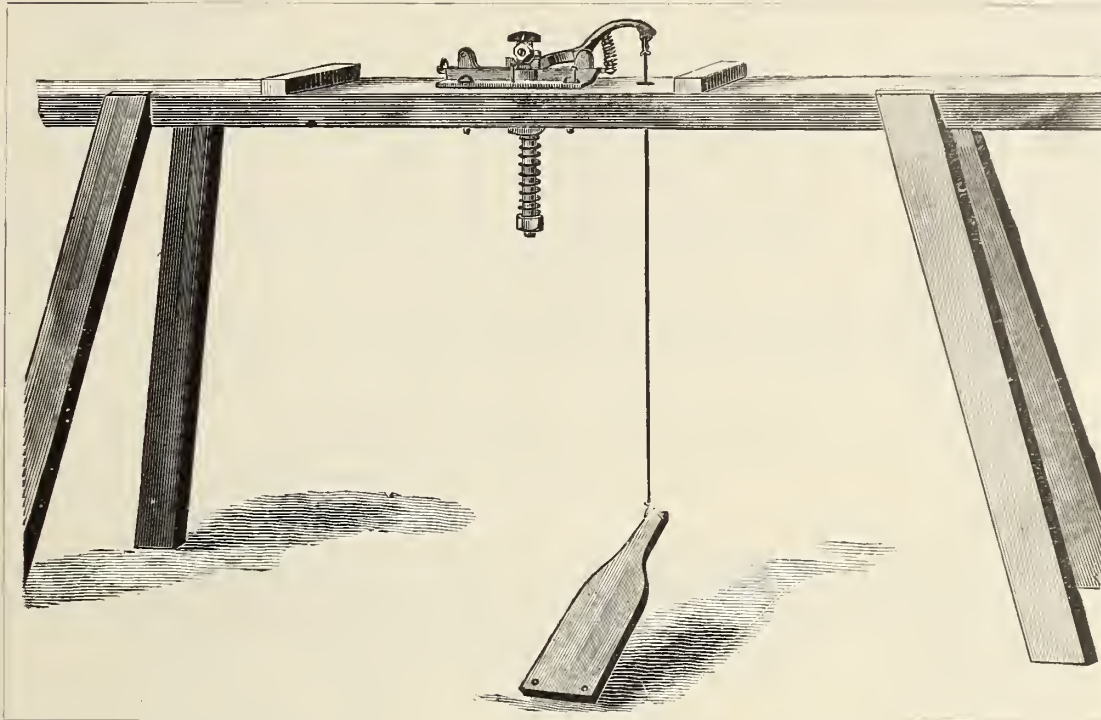
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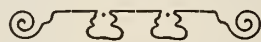
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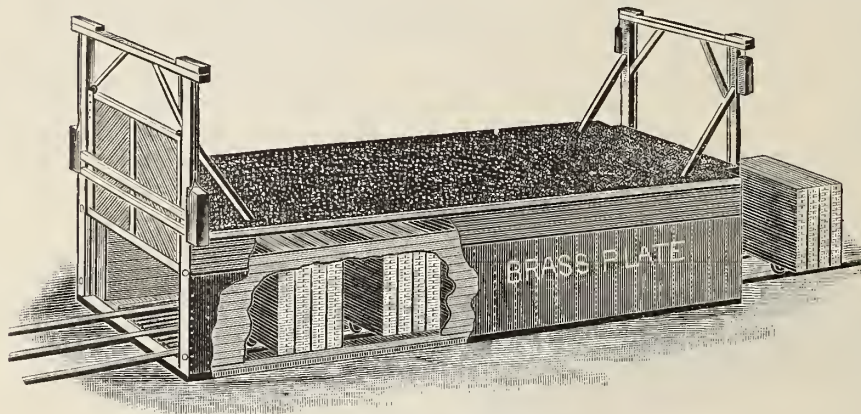
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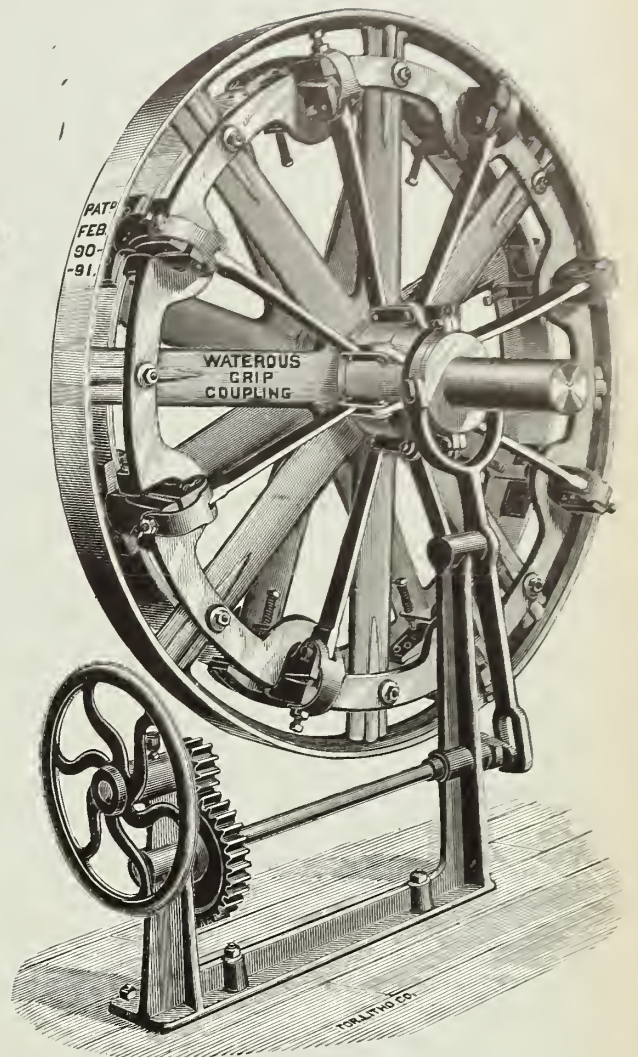
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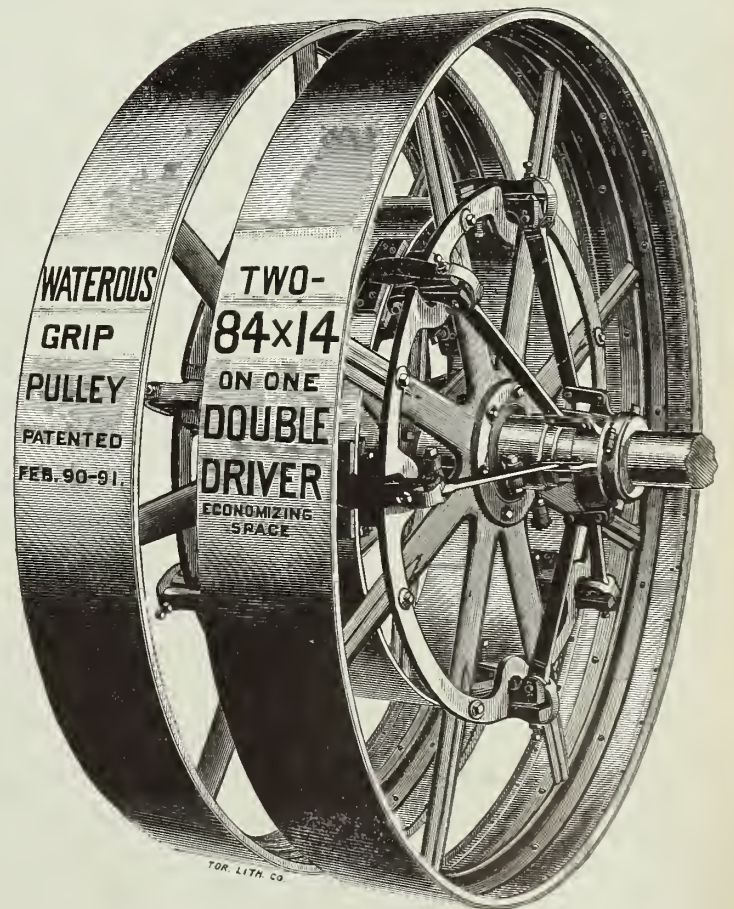
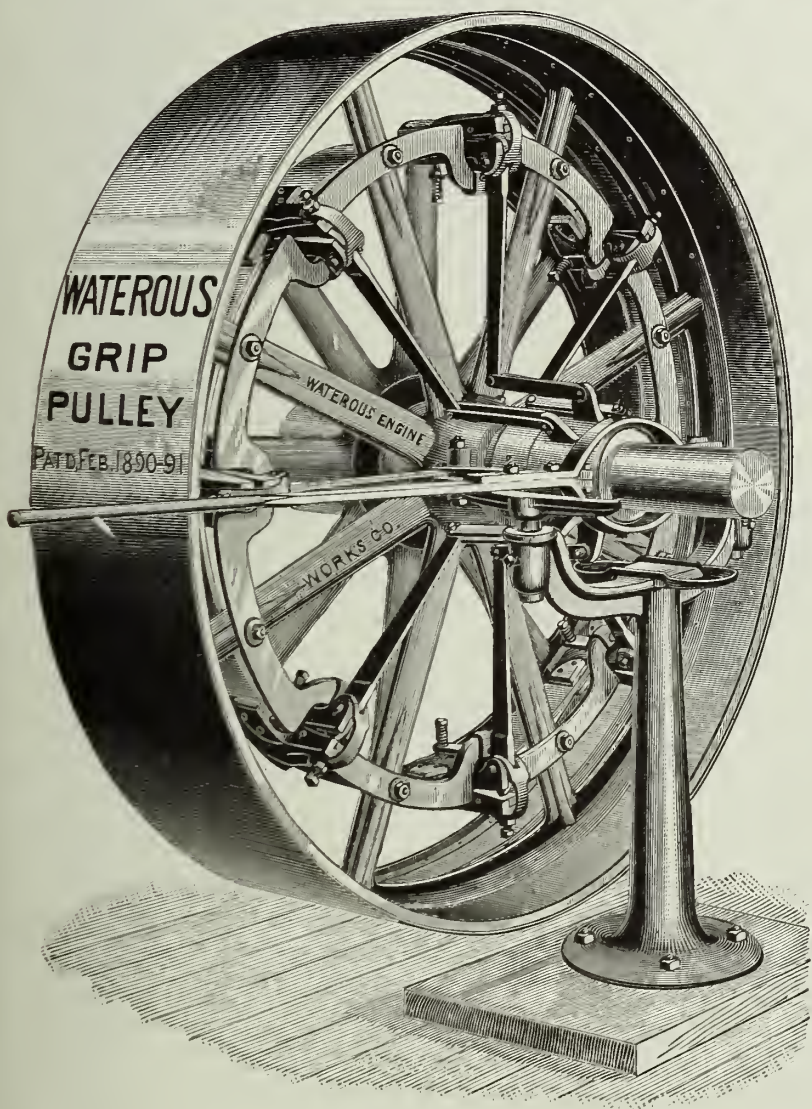
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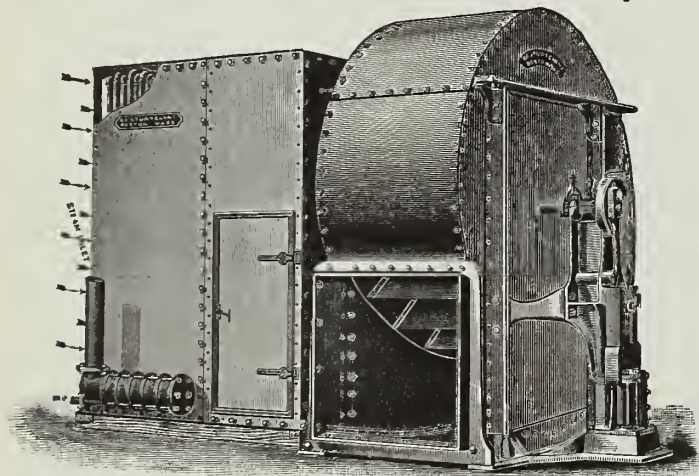
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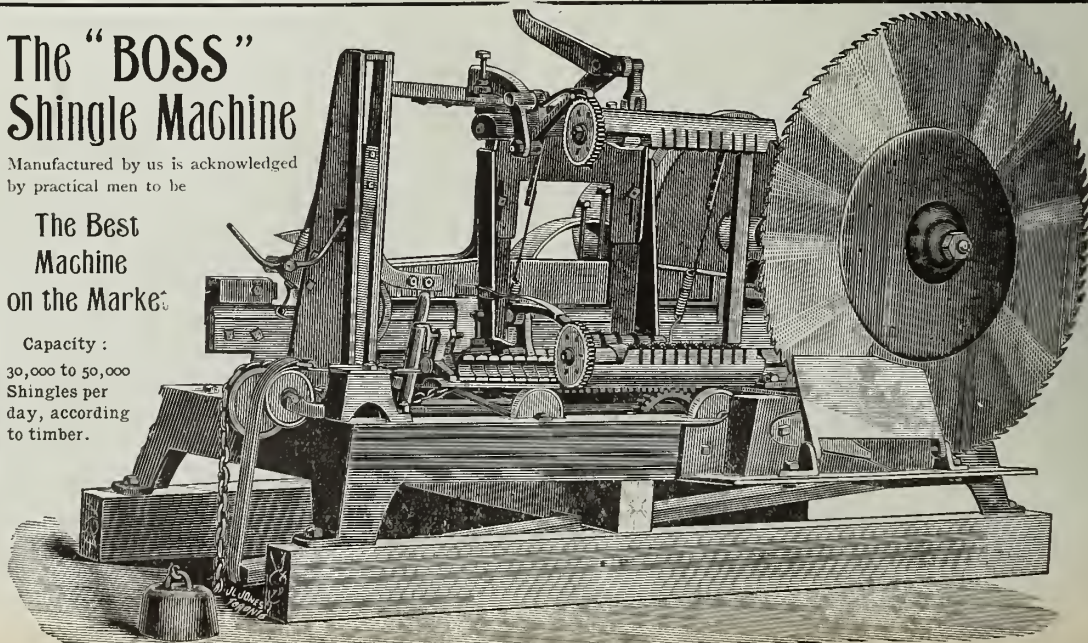
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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIII.
NUMBER 9.

TORONTO, ONT., SEPTEMBER, 1892

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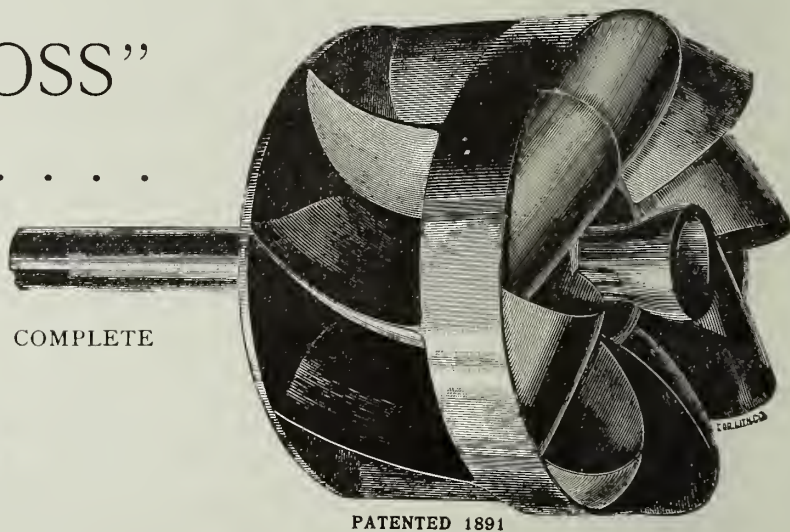
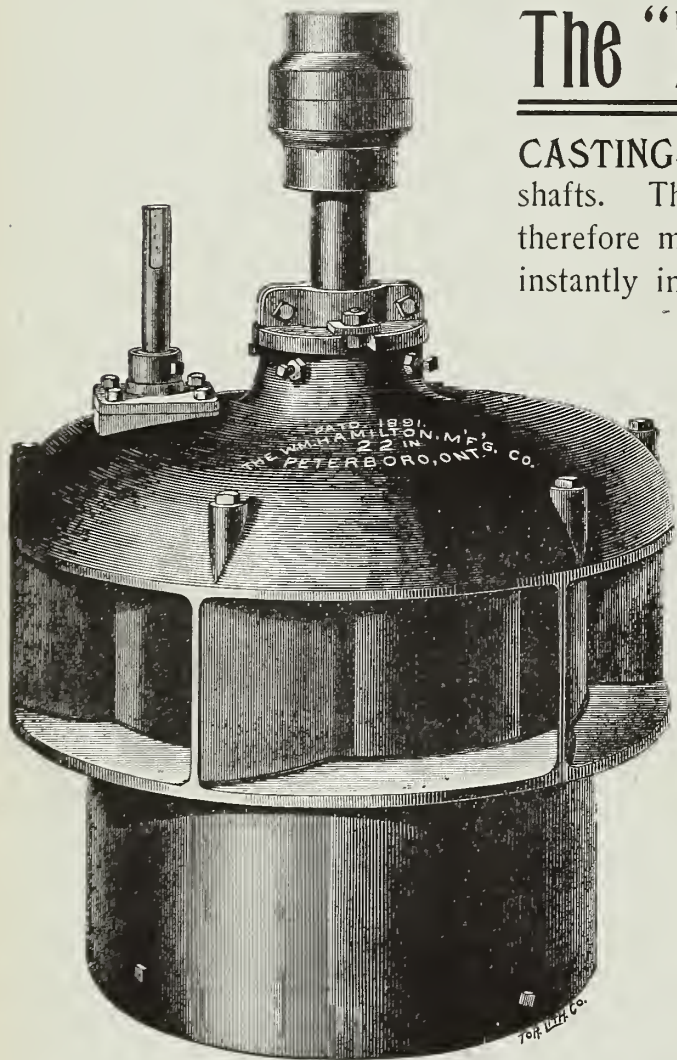


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THE CANADA LUMBERMAN

VOLUME XIII.
NUMBER 9.

TORONTO, ONT., SEPTEMBER, 1892

TERMS, \$1.00 PER YEAR
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BY THE WAY.

AN option held by J. T. Hurst and S. O. Fisher, two Michigan lumbermen, on seventy-two square miles of timber on the Wahnapiatae River, Georgian Bay, has been closed. The limits were owned by McArthur Bros., of Toronto, and the consideration, it is stated, is \$550,000. The expectation is that a cut of 250,000,000 feet will be realized from the property. Fifteen years ago, so runs the story, McArthur Bros. paid \$75,000 for these limits. The difference between \$550,000 and \$75,000 is a tidy sum. Would our Henry George friends take this as a case of unearned increment?

x x x x

Among several reasons given by a Chaudiere lumberman for the boom in lumber this year is this: "A feeling has suddenly grown up that the lumber trade has reached a kind of crisis, or, in other words, that the forest supplies have come to a point where they have turned on the down-hill grade towards depletion. Under such a belief, or fact, prices must keep up right along, and far-seeing lumber dealers are endeavoring to hustle in all the stock they can before the product market takes another jump." It is difficult to realize that such a crisis in lumber has yet been reached in Canada, though the period has been hastening undoubtedly by our prodigal treatment of the forests of late years.

x x x x

THE United States Congress has adjourned, but among the list of bills that received the official assent we do not find the Bryan free lumber bill. It vexed the bosom of our friends of the Northwestern Lumberman, and was the subject of columns of protests from certain lumbermen throughout the country, who thought they saw in it 'a monster of such frightful mien,' that were its provisions to become law the immense lumber business of the United States would immediately vanish into thin air. We are glad that relief has come to break the tension of anxiety which, along with the hot spell, was commencing to prove excessively overpowering. The man who wants his lumber on an easier basis is not in it this time, and must grin and bear his lot yet a little.

x x x x

THE American agent at Waubaushene, Ont., having raised the question whether rafts of saw logs shipped from Canada across the lakes to the States, being exempt from duty, are subject to the requirements of certified invoices, the authorities at Washington have quoted the provisions of section 4 of the act of June 10, 1890, which says no merchandise exceeding \$100 in value except personal baggage can be admitted to entry without a duly authenticated invoice or bond for the production of such invoices. There would seem to be no good reason why this regulation should not apply to logs. Its application does not carry with it the payment of duties, their exemption being already provided for, whilst an official record of the logs received in the States from Canada, would, for statistical and commercial reference, prove very useful.

x x x x

IN a little hand-book recently issued by the Western Retail Lumbermen's Association we have a good index of the business intelligence and strength of this organization. The membership embraces about 150 firms and the territory extends over the C.P.R. main line as far west as Indian Head and all their branches in Manitoba to their terminus; the N.P. railway in Manitoba and M. & N. railway to its terminus. The book before us gives full list of the members, constitution and by-laws of the association, and the inspection rules of the Northwestern Ontario and Manitoba Lumber Association, governing and grading white and red pine lumber. A freight tariff is not the least important feature of the

book. The association is one that means business and holds its members up to its by-laws under a penalty for breaking the price list agreed upon, so that if caught, they shall on conviction, pay the difference on the whole bill in question of the wholesale cost and the retail price at that point, into the funds of the association. Should a dealer refuse to pay on the second offence he will be expelled from that association and the Wholesale Dealers' Association, for it is a joint one, and the honorary members shall be notified by the secretary that such party is no longer a member. This latter notification is equivalent to saying: "Don't trade with him."

x x x x

Benjamin Harrison is not the only man engaged in the business of retaliation. To pay the United States back, in its own medicine, for placing heavy duties, under the McKinley Bill, on Australian wool, the legislators of the Antipodes have decided to retaliate against the United States by imposing a duty of \$6.25 on Oregon pine. Our British Columbia correspondent intimates that this action will no doubt stimulate trade between that province and Australia. We do not think that the fears entertained of British Columbia fir being included under the high tariff, because of a wrong understanding of names, need give anxiety. The tariff measure is leveled against the United States, and Australia can have no object in closing out our woods. The total exports of the products of the forest from Canada to Australia last year amounted to \$254,973, including pine deals to the value of \$12,950; spruce deals, \$45,853; laths, palings and pickets, \$4,942; planks and boards, \$187,591. This is not a very large trade, and will bear increasing, but it is to be remembered that the market in Australia has been severely depressed for a year and more and dullness still prevails. During the past year the United States exported to Australia, under the head of "wood and manufactures of," deals, boards and planks to the value of \$1,123,066; lath, \$16,317; palings, pickets and bed slats, \$10,727; shingles, \$1,125; box shooks, \$2,931; staves and headings, \$19,545; all other lumber, \$28,431; sawed timber to the value of \$206,754; hewn timber, \$3,229; logs and other timber \$1,260.

x x x x

It is the habit of some United States lumber journals to belittle the quality of Canadian woods, though the readiness with which American operators secure large holdings of timber in this country is a striking illustration of a contradiction in terms. But the best testimony touching the character of our timbers is that of the men on the spot who have an experimental acquaintance with our woods. Referring to parts of the Georgian Bay district, Michigan lumbermen, who are at work on the Vermillion, Whanapitae and Spanish rivers say that in size and extent there is no timber grown in their state that will equal the timbers of these territories. From the information that reaches us through our Michigan correspondent and from other sources there can be little doubt that United States lumbermen will put in a particularly active season in the Canadian woods the coming winter. We are losing the sawing of part of this timber because of it being towed to Michigan mills, but it becomes more apparent each month that these conditions will be altered in the near future. We intimated last month that the purchasers of the Dodge estate, a Michigan concern, who had intended towing their logs to their mills on the other side would now do the sawing in Canada. We hear of other United States firms who are seriously considering the problem whether it would not pay best to erect mills at various desirable points adjacent to their limits, saw their lumber here, and ship direct to United States ports by means of barge and tugs. The argument is that this would pay better than towing the logs over and afterwards shipping.

THE NECESSITY OF A STANDARD RULE FOR BELTING.

BY C. R. TOMPKINS, M.E.

THE question of the power that may be transmitted by leather belts has been so frequently discussed in the various mechanical and trade papers that it would seem as if some definite standard of value ought to have been established long ago. But still there seems to be as wide a difference of opinion between those who claim to be experts as ever. Each one seems to have his own theory, and sticks to it, whether correct or not.

One cause for this difference of opinion is in the amount of tension that a belt should be submitted to, for we are all well aware of the fact that the greater the tension the greater will be the frictional resistance upon the face of the pulley, but economy and durability in many cases are left out of the question altogether. It should not be a question of how much power can be transmitted by a belt of certain width, but rather how much power can be safely and economically transmitted by the same.

Here the main question arises upon which "doctors" disagree. One author says a belt one inch wide will resist a strain of 675 pounds, while another well-known author says: "A leather belt will safely and continuously resist a strain of 350 pounds per square inch of section." Now, while a good piece of leather belt one inch wide might support a weight of 350 pounds without breaking, this is no criterion to go by. A belt is never made of one solid piece of leather, but is formed by joining several pieces together by cement, rivet or lacing, and as the strength of all material is no greater than its weakest place, that point must be taken for the basis of all such calculations. Again, suppose a belt joined together by either process would stand a strain of 350 pounds to the inch in width without breaking, the question arises whether it is practical or economical to any belt at that tension. Take, for example, a belt 12 inches wide and subject it to that tension, the whole stress would be $12 \times 350 = 4200$ pounds, or two and one tenth tons. Now, I submit to any practical mechanic how long would a belt of that width last under that stress, or what would be the effect upon the journals and box of a shaft three inches or less in diameter that are so frequently driven by belts of that width. The question of how much stress will a leather belt stand without breaking is not the question to be taken into consideration in practice, but rather what is the most practical stress for economy and durability. Now, it has been demonstrated by numerous tests made by the writer that an average belt one inch wide, when joined together by either of the methods referred to, parted at a stress of 210 pounds, and this being the case, and it is conceded by all mechanical experts that in practice no body should ever be subjected to a strain greater than one-half its ultimate strength, it follows that in practical use a leather belt should never be subjected to a stress greater than 100 pounds to the inch in width, which, in the case of a 12-inch belt, the standing stress would amount to 1,200 pounds, which is all that should be required of it, and if the conditions are such that a belt of that width will not transmit the required power at that tension, rather than to increase the tension and destroy the belt, it is better and more economical in the end to increase the size of the pulleys and thereby increase the speed of the belt, for the power of a belt in all cases is the speed multiplied by the stress.

The power given out by a belt under a certain stress is another question upon which there is a wide difference of opinion. But this question is so easily tested by any one who will take the trouble to do so, it would seem as if it should have been settled long ago, and a definite standard arrived at.

For the benefit of any who may desire to satisfy

themselves, the following directions may be useful: Procure a pulley of any convenient size with sufficient width of face to accommodate two belts. It should be perfectly flat on the face and smooth, and mounted upon a shaft perfectly round and smooth, which may rest upon a pair of balancing bars or centers, so that it will be free to move in any direction. Next procure a good average belt one inch wide and fasten one end to the floor, and pass the other end over the pulley, and to this end suspend a weight of 100 pounds. The belt should be so attached to the floor that when the weight is suspended the belt will embrace just one-half the circumference of the pulley. Now, the power of a belt is simply the friction between the under side of the belt and the face of the pulley, governed by the stress to which the belt is submitted, for, according to the established laws of friction, the frictional resistance between any two bodies in intimate contact increases as the weight. Therefore, as we have submitted the belt in question to a stress of 100 pounds, and that being the weight pressing against the face of the pulley, it only remains to find the power necessary to overcome this frictional resistance and cause it to slip. For this purpose one end of a strap, about the same thickness as the belt, should be attached to the face of the pulley and passed over it, so as to draw in the opposite direction to the weight. Now, if sufficient weight be attached to the strap to overcome the friction of the belt and cause it to slip under this pressure of 100 pounds, that weight will represent the frictional power of the belt. With a smooth-faced iron pulley and a belt of average thickness, that weight will not vary materially from forty pounds. The writer has tested this at different times and under different conditions, and while belts that were strictly new have in most cases fallen a little short, old belts that were worn and greasy gave a trifle more, but the average belt that had been used but a short time gave near enough to forty to say that the frictional power of a leather belt is forty per cent of the stress. Tests were also made in the same manner with belts two, three and four inches wide, with the same results, so that it is also quite safe to say that the frictional power of a belt is as the stress, regardless of width. That is to say, that with the same stress of 100 pounds, the four-inch belt slipped with the same force or weight of forty pounds; but with a stress of 400 pounds upon the four-inch belt it required a weight of 160 pounds upon the strap to cause it to slip, thus proving what has already been stated, that the frictional power of a leather belt under ordinary circumstances is equal to forty per cent. of its stress, regardless of width. That, consequently the frictional power of a belt twelve inches wide under a standing stress of 1,200 pounds, would be no more than a six-inch belt under the same stress. But while the twelve-inch belt would only be required to stand a stress of 100 pounds to the inch in width, the six-inch belt would necessarily be subjected to a stress of 200 pounds to the inch. Therefore, it will be seen that if a stress of 1,200 pounds be required to transmit a given power, it will be more economical to use a belt twelve inches wide than one of six.

The following rule may be deduced from the foregoing tests: To find the power that may be safely transmitted by a leather belt, when the speed and stress are given, multiply the speed of the belt in feet per minute by forty per cent. of the whole stress and divide by 33,000. Assume the twelve-inch belt first referred to at a tension of 1,200 pounds to move at a velocity equal to 2,000 feet per minute. First, forty per cent. of 1,200 is $12 \times 40 = 480 \times 2,000 = 960,000 \div 33,000 = 29$ horse-power.

The foregoing rule is based upon the supposition that the belt embraces just one-half the circumference of the pulley, but where it embraces more or less it has been found that the frictional power increases or decreases nearly in proportion to the square root of arc of contact.

THE AGE OF TREES.

RECENT information gathered by the German forestry commission assigns to the pine tree 500 and 700 years as the maximum of life, 425 years to the silver fir, 275 years to the larch, 245 years to the red beech, 200 years to the birch, 170 years to the ash, 145 years to the alder and 130 years to the elm.

VIEWS AND INTERVIEWS.

Historical Trees.

On the road from Therapia to Buyukdere, on the Bosphorus, there stand in a beautiful meadow several splendid plantains of immense size. They have been several times struck by lightning, split down the middle, and in some cases part of the trunk has been consumed by fire. Nevertheless, they are still fresh and vigorous, putting forth fresh leaves and branches every year. Under their shade Geoffrey de Bouillion, Duke of Lorraine, encamped in the year 1096, with a portion of his suite, when on his way to rescue the holy places from the thralldom of the Saracen; and popular belief attributes to this circumstance the wonderful vitality of these trees.

Age of the Oak.

We learn of the "early ripe" and what is sometimes the corollary of this, the "soon rotten." There is none of the latter element in the composition of the sturdy oak, which woodmen are proud to refer to as the monarch of the forest. Prof. Marshall tells us that the oak in a general way requires to grow from 120 to 200 years before it is fit to cut for large timber. Left alone, it may live for 1,000 years, but the proportion of good timber in trees after a certain age rapidly diminishes. There are many trees still standing in this country which are from 800 to 1,000 years of age. The oak rarely bears fruit at all before it is fifty to sixty years old, and seventy to eighty years is a more general age. When the fruiting season has once been reached, the tree goes on producing acorns every year; but it is noteworthy that heavy crops of good seeds only recur every five years or so, the yield in the interval being inconsiderable. This is in accordance with Hartig's discovery that in the beech, for instance, the tree goes on storing up nitrogenous materials and salts of phosphorous and potassium during the first seventy or eighty years of its life, and then suddenly yields these stores to seeds.

Not all Gain.

The age belongs to the specialists. An all-round man in any calling, and especially in mechanical lines, will look far afield to find his proper niche in this day. The place is not easy to find, nor is it easy to find the man, when the place and work are waiting. This point is nicely illustrated by a writer in the *Industrial World*, who, entering somewhat philosophically into his subject, gives expression to thoughts that are practical and suggestive. Recently this writer needed some sheet metal work done in accordance with drawings prepared by him. "Forty years ago there could have been found in any American village of two thousand population a tin shop wherein this job would have been done at once and well done. After a long search a good general worker of sheet metals was found who was willing to undertake the job. He was not found in a sheet-metal-working establishment, but in a shop where model machinery is a specialty. Such shops as these cull out from numerous applicants such as can demonstrate all-round skill in their respective trades. They are usually men well advanced in life. As they drop away, one after another, it becomes more and more difficult to supply their places. The decrease of manual skill and of artistic sense among mechanical workmen results not merely from want of such all-round practice as they got half a century ago, but from a want of that sort of loving interest in their work which the old-timers used to feel, when they could put something of their individuality into everything that they made. Nowadays the workman has simply to work out a design—or rather, to run a machine to work out some part of a design—prepared by some artist whom he does not know and never has seen. The general result may be beautiful when the different parts are assembled, but the workman feels that he has no personal share in the production of its beauty. He has become a regulator of a machine; he simply sharpens tools, adjusts them, keeps his machine oiled, and puts into it the material to be worked upon. All the precision, the nicety of operation are due to the inanimate rather than the living tool. What interest can such work beget? What lofty ambition can it stimulate? What workman when the bell rings the time to quit work feels reluctant to leave his task or lingers over it to bring out some beautiful effect

or interesting combination that he feels he must see before he can depart contentedly? If machines were invented to play billiards, and only by their use could this kind of games be played, how long would the game be a favorite? If violins could be performed upon only by automatic mechanism, or pictures painted only by machine-actuated, self-charging brushes, who would be charmed any longer by art? Neither the artist nor the dilettante; the artist and the dilettante would cease to exist. So, while we have gained much from the enormous increase in labor-saving machinery that has characterized the latter half of the present century, we have lost what probably will not soon be restored, the love of work and pride in work for its own sake, the love and pride that were the parents of mechanical skill; skill which, now they are dead, is itself decaying. The loss appears inevitable to those who scan the social horizon philosophically; it is, however, no less to be regretted because unavoidable. This tendency of labor-saving machines was many years ago pointed out by Ruskin, who, in the light of the fulfillment of his prediction, proved only too true a prophet. It is this effect upon the masses, more than unequal distribution of wealth, that is separating society into distinct classes." The wonderful progress of the nineteenth century is not all gain.

A Bit Of Advice.

An axiom that found place in the copy-book head-lines of our school days read: "Whatever is worth doing is worth doing well." It was not always adhered to then, nor is it to-day. This is the view, apparently, of our contemporary, *Hardwood*, who talks as follows of one of the sins of the lumber trade: "When times are a little dull, prices a little off and sales anything but brisk, the temptation comes to the average manufacturer to try to even up things by working in a few boards a little off grade which he has heretofore been in the habit of throwing down a grade or two, thus making the grade enough poorer to correspond with lowered prices. There is also a disposition to slight the various stages of manufacture, such as careful turning of the log, edging, trimming, etc., with a view to crowding the output to the maximum limit, thus increasing quantity and decreasing cost at the expense of quality of manufacture. This is the very poorest policy a manufacturer can possibly adopt. Under the conditions named is the time, if ever, when he should look closely after the manufacture of his stock; see that the best is got out of every log; that it is sawed smoothly and evenly; that it is edged carefully and trimmed to a nicety; that it is sorted with discrimination and piled with the utmost care, even to the mill culls, and when ready to ship see that the sorting is kept fully up to grade. Now is the time to gain a reputation for perfect manufacture and good grades. The manufacturer who maintains his reputation on these points during times of slow sale and weak prices will always have the best of whatever trade there is going, and will be sure to feel the first effects of a revival when it does come and he can take his pick of customers. When times are dull, instead of yielding to the temptation suggested to keep up profits, let the manufacturer look about for leaks in the business itself. See that no one is shirking, that there are no deadheads on the pay-roll, that every man is doing a full day's work; look closely after the work in the woods and see that every tree is cut to the best advantage and that teams and men are kept on the move all the time; see that everything is snug and trim and in good repair in the mill, that there are no stoppages on account of broken or weak belts and toggled up machinery; look after the furnace grates and the fuel and the entire steam-making apparatus. In short, when times are dull, the way to meet them is to follow up the business so closely as to make the very best quality of lumber at the lowest possible cost consistent with fair wages to employees. In lieu of this it were better to shut down and wait for better times, for any attempt to get even by any methods at all questionable will inevitably result in making matters worse in the long run."

A tree was cut in the Puget Sound forest recently from which seven cuts were taken without a knot, their combined length being 179 feet. The tree scaled 48,000 feet.

THE "BOSS" TURBINE WATER WHEEL.

THE accompanying illustrations represent a new turbine water wheel recently placed upon the market by the Wm. Hamilton Manufacturing Company, Ltd., of Peterborough, Ont.

The "Boss" turbine wheel is the outcome of a series of very many expensive experiments through a long period of years, and every point devolved, either by practical use or scientific test, has been seized upon in deciding precisely what is the best construction of every part of the wheel. The result of their experiments is the "Boss" turbine wheel of to-day.

The prominent features of this wheel claimed by the manufacturers are those of economy, simplicity of parts and durability. At no period of our country's history has there been such a demand for a first-class turbine wheel as now. Population and wealth have multiplied, but water powers have not, and not only this, but the volume of water in many streams has greatly diminished.

In the "Boss" turbine wheel the owners of water powers will find a motor not only unsurpassed in its strength and mechanical simplicity, but seldom equalled in its power and percentage, when varied from half to full gate. The wheels, during the many trials that the different sizes were subjected to, showed a percentage of useful effect of from 87 to 92 per cent. of that of the water, a percentage, we believe, that will be hard to beat. This percentage is not only what the wheels tested by means of the dynamometer has shown, and under the most favorable circumstances, but what is actually being done by the different-sized wheels recently placed by the above firm throughout the province.

The wheel is simplicity itself—no gates to choke or clog, and all parts liable to injury are under cover and protected. The wheel case and draft tube are of one casting. The case has a series of graduated chutes so constructed as to direct the water upon the periphery or outside of the buckets at all points of the gate opening. The gate is circular in form and is mounted upon the wheel case, and has a series of balls interposed between the flange of gate ring and wheel case, forming the bearing; by means of the balls the friction between gate ring and case is reduced to a minimum. The gate is placed between the wheel case and the runner and revolves horizontally, there being a series of openings on the gate ring to register with openings or chutes on the wheel case. The gate is opened or closed by means of a rack and pinion under cover of the dome and protected from injury.

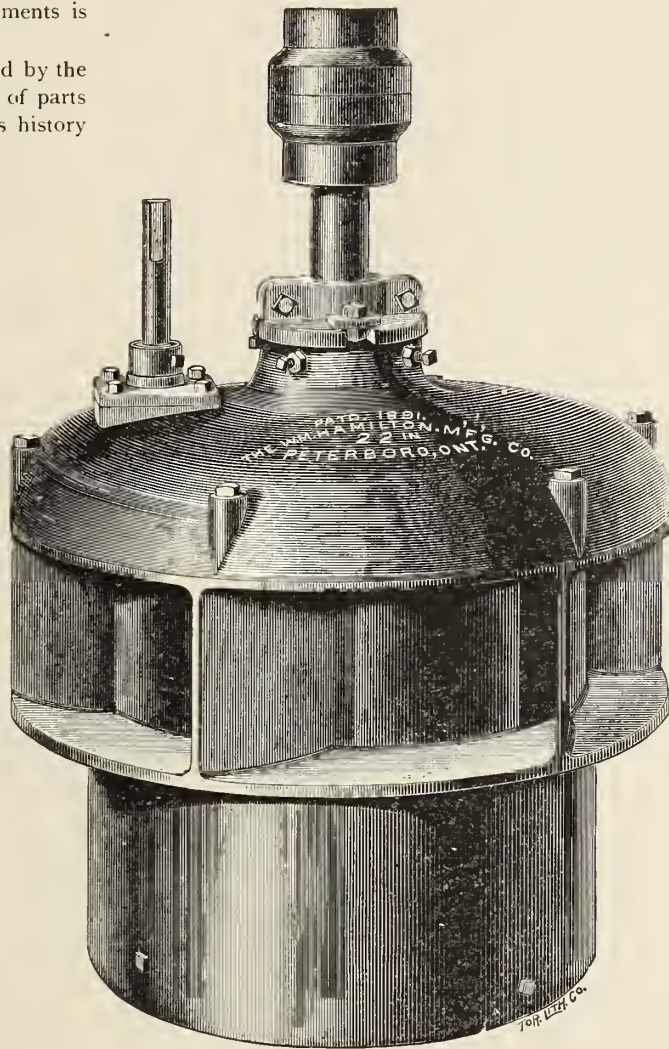
The runner is of one continuous casting, having no bolts or bands to become loose. The illustration clearly shows the construction of the runner.

The wheel is completely covered in by the dome, upon the neck of which is carried the stuffing box, by means of which the wheel is aligned true. The construction of the stuffing box is a departure from the old-time method, requiring no hardwood blocks, being made in two parts bolted together and held upon neck of dome by means of screws. The operation of aligning the wheel shaft is done by means of screws shown on side of neck of dome. To remove the wheel for examination or repairs occupies very little time, the flume being empty and admittance being gained by the removal of the bolts as shown on dome or cover; the wheel is then ready for removal. One feature, and a desirable one, is that the wheel is removed from the top instead of through the bottom, thereby saving much time and annoyance to the millwrights or others who may for any reason require to remove the wheel or put it in place.

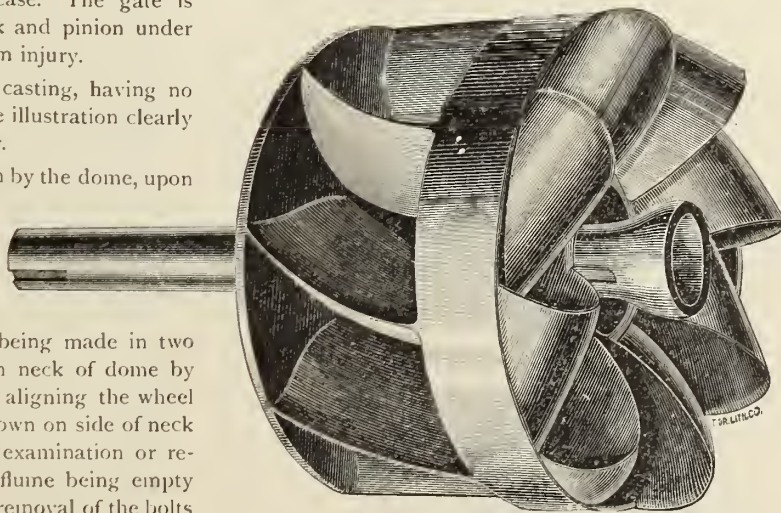
The wheel consists essentially of six castings; there are no gate rods or bolts to get out of order. From the illustrations it will be conceded at once that the design of the wheel and the arrangement of parts are such as

to merit the commendation of all who have the care of or who may use water wheels.

The wheel is manufactured in fourteen sizes, from six up to sixty-two inches. All who contemplate the improvement of water powers are invited to correspond with the above-named firm, who will furnish plans and estimates or other information upon all forms of water wheel work, including wheels erected upon horizontal as well as vertical shafts.



This wheel is highly suitable for woolen mills, grist mills and electric light plants requiring steady motion, and easily controlled by governor, and it is strong and substantial for saw mill and mining or other heavy work.



SAWMILL ECONOMICS.

IT was, only a few years ago, capable of demonstration that there had been little, if any, advance during the last forty years in the average product of the saw mills on a per capita basis. The old mule saw would cut about 2,000 feet per man, employed from the pond to the yard, and the circular or band saw mill of five or six years ago would hardly do as well as that; but within a comparatively short time there has been a substantial

gain in economy of production. This has been brought about by minor appliances and by a more perfect arrangement and systematizing of the business.

It used to be said that the steam log turner had doubled the capacity of the saw mill. This was to a certain extent true. It did largely increase the output of the mill, but it entailed added labor and increased the number of hands in other parts of the establishment, so that the per capita of the production was but little changed. The high-speed feeds also greatly increased the output without in any corresponding manner decreasing the cost. Now it is no uncommon thing to see a mill which turns out 3,000 feet per capita or better, though still in a majority of cases the production will be at or below the 2,000 feet mark.

Perhaps two of the chief factors in reducing the amount of labor are the log "kicker," so called, which removes the log from the chain as it is brought into the mill, and the log loader. Not infrequently a mill can be seen which is doing rapid work with no one at all on the decks, and very commonly one to two men will take care of a double-deck mill. Right in that spot there has been a saving of from two to four men. Another great saving has been made in handling cants to the gang or boards to the edger. Transfer appliances have done away with one to two men on each side of the mill. Again, transfers to the trimmers from the edgers have reduced the number of hands employed, and devices for automatically sorting lumber to lengths, and other conveniences at the tail of the mill, have lessened the number of hands at that point.

A well-known millwright of the Northwest makes the assertion, and professes to be able to back it by a sufficient moneyed guarantee, that he can build a mill that will cut an average of 5,000 feet per man employed, counting from the foot of the log haul up to the tail of the mill, including the men who place lumber on the trucks ready to go into the yard. This arrangement, however, would not include the shingle and lath departments, except the men on the slasher, as those departments are independent, and should be figured by themselves in considering the capacity of the mill.

It is also probable that the band mill has had considerable to do with lessening the amount of labor employed. One edger and one trimmer could be arranged easily to take the product of two bands, and in any kind of timber the number of logs handled with the band is not so great as it is with the circular.

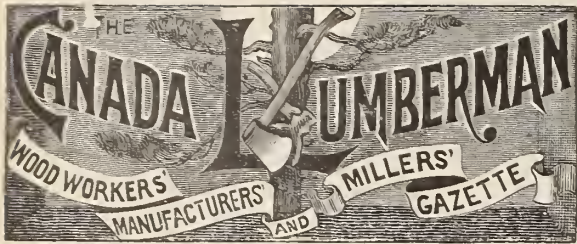
It seems to be evident that the saw mill business is coming to its perfection of development. Until the advent of the band mill and the appliances mentioned, with others, the sole result of invention and improvement has been to increase the production of the mill without effecting a saving in labor; but with the constantly increasing prices of logs, with the close competition prevailing and the appreciation by the manufacturers of the necessity for the utmost economy in the production a new era has dawned.

THE UTILIZATION OF WIND POWER.

THERE is a windmill in London perched high up on a timber tower erected on the top of a building on the City Road, not far outside the old "City" boundary. It has a sail of thirty feet diameter, and is quite a big affair when one climbs to the top of the tower. But what I specially wanted to note was the fact that this windmill is lighting the premises over which it stands.

Its upright shaft, which comes down from the mill, drives a horizontal shaft which carries a large belt pulley, and by this large pulley is driven a small dynamo. The dynamo generates a current which charges a battery of accumulator cells, and these in turn "drive" the lamps. At times, when the wind is low, the speed falls below what is proper for charging the secondary battery. To prevent this being charged at such low speed there is a cut-out held in by a magnet and kept out by a coiled spring.

When the magnet is weak the current is cut off from the accumulators, but when the dynamo is running at a fair speed the magnet is strong and pulls the switch into contact and the charging proceeds. The mill will run and charge all night and all day. In quiet weather it runs much of its time slowly, and, therefore, uselessly, but it also runs the night through, and I suppose would on an average do eight hours work in twenty-four.



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—BY—

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J. S. ROBERTSON, EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

ONTARIO'S TIMBER RESOURCES.

WE are hearing a good deal about the denuding of our forests. Just to what extent this has been the case in thirty-two of the older settled counties and districts of Ontario is told in the seventh annual report of the Clerk of Forestry for this province.

In Carleton, Halton, Lennox, Lincoln, Northumberland, Ontario, Peterborough, Wellington and Dufferin (with the exception of Melancton and East Luther townships, which are still under the process of clearing for settlement) only about five per cent. of timbered land remains in each county. This consists chiefly of elm, ash, maple, beech, tamarack, with little, if any, pine. Take Brant, Huron, Hastings and Simcoe, and the average is from eight to ten per cent. of the total area. Dundas, Middlesex, Norfolk, Perth, Waterloo, Welland and Wentworth can claim of timbered lands from fifteen to twenty per cent.

We come then to a number of counties where the showing is from one-quarter to one-third of the area. About one-fourth of Essex is still in timber, principally black ash and soft maple. Scrubby oak will be found in a few localities, but all other merchantable timber has well-nigh disappeared. Kent has about twenty-five per cent of the total area in timber land, and includes elm, black ash, basswood, hickory, beech and maple. Oak and walnut were once plentiful, but no supplies of either of any consequence remain. Mr. Phipps, the Forestry Commissioner, does not lose an opportunity here to point a very practical moral. These valuable woods were nearly all exported at a time when they only commanded a sufficient price to pay for the labor of cutting and marketing them. The reckless and improvident regard for the future with which these invaluable forest resources were exported can now be realized when it is considered that oak that sold fifteen or twenty years ago at \$4.50 per thousand feet could now be marketed at \$25 per thousand, and walnut, which then only brought \$14 per thousand feet would to-day command \$100. The

wooded portion of Lambton is about one-fourth its entire area.

In Elgin perhaps one-third of the county is still wooded land. Considerable beech, maple, elm and ash are distributed over part of the county; there is also oak, hickory, chestnut, whitewood, cherry, sycamore, butternut and black walnut in smaller quantities. In the eastern portion of the county there is a large quantity of pine. In Glengarry we find principally maple, birch, beech, basswood, rock elm, black ash, hemlock and some white pine, with smaller quantities of cedar, tamarack, balsam and balm of Gilead.

A good deal of maple is to be found standing in Prescott, where, at a rough estimate, one-third of the county is still timbered land. The other leading varieties of timber which remain are elm, beech, birch, basswood, cedar, hemlock, spruce, tamarack and balsam. The most plentiful kinds of trees found in Renfrew are white and red pine, white spruce, maple, tamarack, birch, beech, red and white oak, ash and elm. The portion of the county still in timber is probably one-third of the whole.

About one-half of the county of Bruce is cleared land but the area yet in timber is being rapidly diminished. Fears are expressed that unless means are adopted to prevent the indiscriminate destruction of the woods, the experience of older-settled counties will be repeated in Bruce. The most numerous represented kinds of trees are cedar, hemlock, basswood, maple, white and black ash; very little pine.

We continue to look to Muskoka as a lumbering district. What are the conditions? Probably about three-fourths of the district is still uncleared land, though lumbering operations have been carried on extensively throughout this area. Nearly all the pine of a marketable character has been cut, and the hemlock is rapidly being removed. Mr. Davies, in the ELI page, tells of the saw-fly in Muskoka, which is doing serious hurt to the hemlock. The predominant varieties of timber which remain are ash, oak, basswood, maple, birch, cedar, tamarack, spruce and balsam. The timber, it is stated, has been cut indiscriminately; many rocky tracts, which are utterly useless for any other purpose than timber growing, have been completely stripped, or, after being partially cleared, devastated by fire.

In the Parry Sound district the proportion of land now in timber, not counting the scrubby second-growth that is coming up over the land devastated by forest fires is about sixty per cent. of the whole. The chief varieties of timber extant are maple, beech, hemlock, edar, tamarack, spruce, red oak, pine and birch. It is remarked that the Georgian Bay has sunk some four feet within the last eight years, which some are disposed to attribute to the disappearance of timber about the head waters of the streams which debouch into it.

The county of Oxford contains about five hundred thousand acres of land, of which about one hundred thousand are nominally in forest. Not more than two-thirds of this will be beech and maple, the rest being composed of various woods such as oak, ash, hickory, chestnut and walnut. There was formerly abundance of pine, but it is long since cleared. In southern Victoria there is not more than ten per cent. of forest land, but in the remainder of the county to the north the proportion of uncleared land is estimated at about sixty per cent., though considerable areas of this have been overrun with bush fires. The principal kinds of timber remaining in the southern part are cedar, tamarack and spruce in the swamps, and some hardwood, which is rapidly diminishing. The pine is nearly all gone. The leading varieties in the northern sections are maple, hemlock and cedar.

All told there are some fifty-two counties and districts in Ontario. Not even the minimum of five per cent. of wooded land is likely to be discovered in many of the remaining twenty counties unparticularized in the forestry clerk's report. But among the districts not named are Algoma and Nipissing, two of the most richly wooded territories in the province. With some fairness a share of the Chaudiere timber wealth might also be considered as belonging to Ontario; at least it lies contiguous to this province, though actually in Quebec, and it is within Ontario that some of the largest saw mills,

which transpose the logs into merchantable lumber, are located.

Carefully calculating what remains of wooded land in a large number of counties, and remembering especially its rich abundance in certain special districts, it will be granted that a timber famine is not yet imminent in Ontario. And yet one cannot consider the history of the thirty-two counties the forestry report has singled out for mention without being face to face with the fact that similar extravagance in the management of almost any other department of business, public or personal, would have long since resulted in disastrous bankruptcy.

The effect upon agriculture, the rivers and streams of the country, and the character of the climate are all questions suggested by the conditions stated. The matter of immediate consideration would seem to be the utilization of such methods, and the exercise of those plans, that would result in a wise husbanding of the residue of timber that remains to the province, while at the same time placing no unnecessary embargo upon it as a commercial product.

HABITS OF WORKINGMEN.

HOWEVER distasteful the admission may be, it is nevertheless too true, that the evils of intemperance hit the working classes harder, and in wider extent, than probably any other section of the community. No testimony on this point is stronger, and more direct, than that given in a letter from Master Workman Powderley a year or so ago.

It has sometimes been said that workingmen employed in lumbering operations, particularly shantymen, are victims of the cup in an aggravated degree. When free from the labors of the woods, like the sailor when he reaches port, after a long voyage, it is too often the case that many of these woodmen will visit the first saloon that comes in their path, and this is not usually far away, and there spend most, if not all, of a season's earnings before closing a drunken carousal.

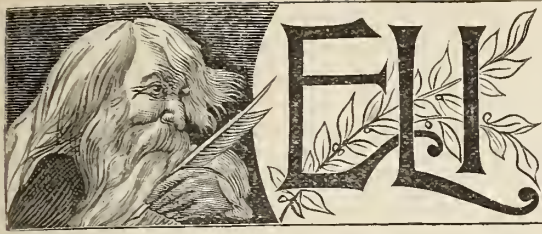
Signs of a better day dawning are indicated in the interest shown of late years by our churches and temperance organizations sending missionaries into the lumber camps, furnishing healthful reading matter, and in other ways endeavoring to cast sunshine into a manner of life dismantled of many elements of gladness. The solicitude of the lumbermen for the comfort of their employees is shown in the improved conditions of shanty life contrasted with those of earlier years. And so far as the personal habits of the men are concerned the employer can only be anxious that these be improving and uplifting in their character. Not only from a humanitarian point of view, but even from the standpoint of the coldest utilitarianism, this desire would most surely prevail. Mr. D. T. George, a prominent lumberman in the Maritime provinces, stated recently before the Royal Commission, meeting in New Brunswick, that he employed a large number of men, but "did not employ drinking men." He bore testimony to the efficacy of the Scott Act in rural districts, and "that it had reduced drinking in the cities and towns." Mr. J. Rister, manager of the planing mill at Fredericton, N.B., had found the operations of the Scott Act beneficial to his employees and to the community.

This view of the question is fast taking hold on all employers of labor in the present day; even those who are not entirely abstemious themselves often make it a sine qua non in contracts with employees that they be total abstainers.

Workingmen themselves are not slow to take note and be guided by these altered conditions. They see the preferences that rightly are given to the employee, who even though not so bright and clever a workman, is yet to be depended upon. Moreover, to themselves and their families, they know that increased comforts necessarily follow a life of temperance and frugality.

HELPING LUMBER INTERESTS.

WHEN the Parry Sound railway to Arnprior is completed no industry will experience the advantages of the boon greater than the saw mill men. A direct route through to the United States will then be enjoyed, and in this respect Arnprior will be on a level with Ottawa.



THE well-known lumber veteran, A. R. Christie, was just in from the Georgian Bay district when I met him a few days ago. "Oh, yes," said he, "the mills are somewhat busy, those that have anything to cut; but we are not so terribly in want of lumber as some people would make one believe. We will make a mistake if an excess of lumber is again cut by the mills. Prices are better than they were; they had need to be; but an overplus of stocks will not help prices."

* * * *

"We are well pleased with the business situation," said Mr. John Donogh, of Donogh & Oliver. "Local business is, of course, quiet enough. You will have noticed how building permits have fallen off in the city; but outside business is satisfactory. We are doing a good business with the States. We have taken over the business of the Proctor Lumber Co., of Buffalo, and made that a branch of our business. Mr. Charles W. Playter, who is well known to the American trade, is our representative. Our Mr. Oliver, who was north among the mills lately, reports the larger part of the season's cut as having changed hands. Prices are stiffening and all signs point to better times for the lumber business."

* * * *

Mr. Wm. Palmer, of Random, Trinity Bay, Newfoundland, is a lumberman of the distressed colony, who has been visiting relatives in London, Ont. Mr. Palmer has been peculiarly unfortunate in his losses by fire. He had suffered considerable loss by forest fires in the early part of the month, and had just reached St. John's to market a boat load of lumber when the great fire broke out by which the product of his season's operations went up in smoke. He says it is impossible to describe the sufferings of the ten thousand homeless people of all ages, sexes and conditions, who are encamped in the parks and waste places of the city with no means of support other than what is sent them by the charitable people of the world. Mr. Palmer is on his way to the Northwest to see what are the prospects there for a new start in life.

* * * *

Among the many summer visitors to Toronto the present season was Mr. Francis E. Lloyd, professor of botany and forestry in the Pacific University, Forest Grove, Oregon. It was my pleasure to meet Mr. Lloyd during his stay here, and our conversation, it was to be expected, turned on the subject of forestry. I was interested in learning that forestry will be made a subject of considerable importance in the curriculum of the Pacific University. The soil is congenial, and I have no doubt that reflectively, if not directly, the lumbermen of Oregon will be influenced by the teaching of the university on this subject. I suggested to Mr. Lloyd that his teachings would probably be more theoretical than practical, remarking that I supposed this was the position of botany as a subject of university teaching. "Botany, it is true," said Mr. Lloyd, "has a strong esthetic side, and it is natural, as it is ordinarily taught in our schools and seminaries, that we should view it in this light. It also occupies an important place as a scientific subject, and this ought not to be forgotten. But it has a decidedly practical, business, every-day side in what we term economic botany. Treating the question in this light we think of a plant like *cocoa* as one eminently adapted for domestic uses. How can it be made more productive? In what way can its virtues be strengthened? What treatment needs be accorded it to improve its growth? These and many other questions have to be considered in a study of the economic relations of *cocoa*. So with scores of other plants used for domestic, medicinal and mechanical purposes. And it is as an economic question I shall teach forestry. Every year gives impressiveness to the

question. Because of the immensity of the timber resources of this continent we have been wickedly prodigal in their destruction. But if the history of European countries is worth anything to us, we can only continue this waste at a terrible cost to generations yet unborn. Briefly, my aim will be to show up in clearest possible light that a knowledge of the principles and practice of forestry will pay."

* * * *

Prof. Saunders, Dominion Commissioner for the World's Fair, in an interview has said that timber will be one of Canada's greatest displays. Four thousand feet of space has been set apart for this country and a good slice will likely be used by the lumbermen. British Columbia will be well represented in timber products; probably 1,000 feet will be given up to lumber exhibits from that province. It has been decided that the sections of logs to be shown are to be of a uniform height of three feet six inches. They will stand on a platform eight inches above the floor, so that they will be at the most convenient height for people to inspect them properly. They will be shown in the rough and polished, some cut so as to show the tangential appearance of the wood, and so on. The uniformity in height will allow of ready comparisons of the timber from different parts of the country. What was specially wanted was a good representation of specimens of our commercial lumber. Mr. Nicholas Awrey, M.P., Ontario Commissioner to the Chicago Fair, has sent out 600 circulars to the lumber dealers of this province, and is meeting with a ready response from them. He is anxious that the province should make a display of its finest woods. In the exhibit of wood and wood products there is good reason to expect that Canada will make a large and noteworthy display at the Columbian exhibition.

* * * *

Mr. Wm. Davies, the well-known provision merchant of this city, who spent some time in the vicinity of Lake Joseph, Muskoka, this summer, is authority for the statement that wide-spread damage is being done to the hemlock forests of that district by a voracious little animal that completely strips the limbs of leaves, rendering the tree almost lifeless. A branch of a blighted tree was shown to Dr. Wm. Brodie, of this city, a prominent entomologist, well versed in conditions in this country. He has expressed the opinion, without having seen a specimen, that the destructive work is chargeable to the larvæ of the saw-fly. He thinks, however, that it must be closely related or identical with the species (*lophyrus-abietis*) that has destroyed the foliage of evergreens in several of the Eastern States and in Quebec. In New England the larvæ of this fly has been especially destructive. The male is about a quarter of an inch long and two-fifths inch in expanse of wings; black above, brown below, the wings with changeable tints of reddish, green and yellow. The legs dirty yellow, antennæ like short black feathers curled inward on each edge. The female is three-tenths inch long and one-half inch in expanse; yellowish brown above, with blackish stripe on each side of thorax; dirty yellow below; antennæ short and tapering, nineteen-jointed, serrated on the outside. The larvæ, which are about half an inch long, live in large swarms, curling the hind part of the body around the leaf while feeding. The head and anterior parts are black, body pale green with longitudinal stripes, below yellowish; they become almost yellowish at last. From this description anyone may identify the fir sawfly.

* * * *

"One must stick close to the cushion these days," said Mr. Meaney, city manager for Robert Thompson & Co., "if he is to make business pay. I have done very little holidaying this summer. Present business is quiet; local trade is dull as ever; but throughout the country the outlook is undoubtedly hopeful. So soon as farmers can get over harvesting we may expect them to engage in building operations, which many of them have been deferring for years, because of hard times. At the mills we have had a busy season, particularly in deals for the British market. Our Mr. Thompson is in Glasgow, Scotland, at the present time, where we have a branch house." Mr. Meaney told me a good story to show how local builders will scheme to do up the lumberman. It is not an easy matter for the specu-

lative builder to secure credit these days. Toronto lumbermen have had their own experience of that kind of business. "But some of them will try all sorts of methods to get the best of us," said Mr. Meaney. "A good square lie gives no worry. A certain individual made application for credit a while ago. He was putting up two or three houses. He wanted rock bottom prices, as everything would be paid, he said, inside of 30 days, which would give time, if necessary, to put a lien on the property. When our bill was something under \$100 I considered it best to look for some money. I found bricklayers and others were on a similar mission. Enquiry was made only to discover that the property had never been transferred to the individual in question. The owner of the property claimed lumber, bricks, and all other material on the ground as necessary to protect himself, leaving everyone else out in the cold. The culprit himself skipped the town, and then had the gall to send back an affidavit saying that he and Mr. Owner had deliberately planned to defraud every man from whom they could secure material of any kind. Of course, it was a clear case of fraud, but our amount was too small to make it worth while putting on costs. One needs to be wary of Toronto speculative builders; don't you think so?"

* * * *

"The question of how best to promote the material progress of Canada," says Mr. R. W. Phipps, the well-known Forestry Commissioner for this province, "is one to which much attention has been devoted. It is felt that in the past the development of the country has not been in proportion to the resources at our command, and the manifold attractions offered for settlement. Various proposals have been from time to time submitted with a view to the more rapid expansion of our commercial and industrial interests. It seems not a little singular that while this problem occupies so prominent a place in the minds of Canadians they should suffer one of the principal sources of national wealth and prosperity to be wasted. I refer to our forests which, apart from the present and prospective value of the timber supply, are indispensable to the continued prosperity of our yet more important agricultural interests. It ought to be generally known the indiscriminate cutting down of the timber tends greatly to impair the productiveness of the soil. A certain proportion of wooded country is necessary to ensure a steady water supply and prevent the land from becoming parched and sterile owing to the want of moisture during the summer season. Ignorance or indifference to this great natural law has always resulted in National ruin. The process is gradual, extending over a lengthened period, but none the less sure. Climatic changes set in which render the labor of the cultivator less productive and the crops less abundant. The country is no longer able to support the population which formerly derived their subsistence from the soil and famine drives many to seek homes elsewhere. Scientific forestry explains the function performed by the forest as the great natural storehouse of moisture, large quantities of which are absorbed and retained by it after every heavy rain, and given out gradually into the water courses or by evaporation into the atmosphere. Where no trees exist the water runs rapidly off the torrents and in a day or two the ground is as dry as ever. It follows that the reckless clearance of the country has inflicted great injury on agriculture besides diminishing the sources of our future supply of wood. It is time that this destructive process was arrested—the remaining woods, especially in our frontier countries, carefully preserved—and measures taken to redeem in some degree the mistaken recklessness of the past by replanting. I am glad to note the fact that the Provincial Government has set apart a forestry reserve of considerable extent in the back townships where some of our principal rivers and streams have their source, which will prevent them from drying up to mere rivulets owing to the destructive process. But much more remains to be done in this respect. The private effort and example can alone do much. Every farmer and land-owner ought to realize that it is his duty as well as his duty to do what he can to improve his tenants of bush as well as by re-planting. The conditions of soil and climate will be a prosperous agricultural c

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE statement has been made that not in a score of years has there been a more ready sale for lumber and at better prices than this year. Thus far the lumber interests of this district are enjoying a favorable season's trade. The one difficulty experienced is that common to the trade in other lumber sections, viz., the scarcity of saleable lumber. We hear of dealers buying logs and having them manufactured themselves to meet pressing demands of customers.

These conditions do not, however, presage a larger cut than usual. On the contrary the opinion is held that the cut will be lighter than was anticipated earlier in the season. The stock on hand in manufactured lumber at the close of the season last fall amounted to 342,000,000 feet, and probably 100,000,000 feet of this was sold for spring delivery, reducing the actual stocks to that degree. A good demand existed throughout the winter, breaking pretty well into the remaining surplus. An active season's cutting, with supplies of logs readily available, would have overtaken the call for stocks that existed all along, but, as has been pointed out in these letters before, logs were slow to come to the fore: mills stood idle for some weeks and, what is more, as you know, a migration of several of the larger operators has taken place to other fields. It is estimated that the cut will reach 600,000,000 feet, and it may be 700,000,000.

BITS OF LUMBER.

The Alpena Cedar Co. has been incorporated with a capital stock of \$60,000.

The Gladwin hoop mill will be in charge in future of Mr. C. H. Hood, the former owner, Mr. Saylor having retired and removed to your country where he will engage in a similar line of trade.

The mills at Tawas are reported to be liberally stocked with Canadian logs, that point being ready of access for rafting. Sibly and Beringer will manufacture 23,000,000 feet of logs here this summer.

In ten years the lake shipments of lumber from Saginaw ports has fallen off from 413,162,875 feet to 174,423,000 feet. The explanation is that the traffic has been diverted from the water routes to the railroads.

News from Bay City is that Canadian logs in large quantities are at the mouth of the river, but some delay is being experienced in getting them to the mills, where they are much required. Turner and Fisher are in receipt of a raft of 26,165 pieces, scaling 2,811,040 feet, from Spanish River.

Among Michigan lumbermen who are engaged in the activities of lumbering in Canada, either on their own account or on behalf of others, may be mentioned E. L. Pratt and Thomas Pickard, Charles Woods, Charles Moore, McKeon & Glover, G. N. Fletcher and Sons, Alger Smith and Co., J. T. Hurst and S. O. Fisher. Their interests are chiefly in the Georgian Bay district.

James Hamilton, of Bay City, is under contract with F. W. Gilchrist and W. H. Potter, to cut 80,000,000 feet of pine. He expects to cut at the rate of 20,000,000 feet a year. A steamer, chartered by Mr. Hamilton, left Alpena for Thessalon, Ont., with camp supplies and outfit the early part of the month. F. W. Gilchrist and T. W. Fletcher have contracted to cut 100,000,000 feet of pine on the Sauble River, Georgian Bay district, for Ben. C. Morse. The cut for Mr. Morse this winter will be 5,000,000 feet, and 25,000,000 feet per year subsequently.

PICA.

SAGINAW, Mich., Aug. 22, 1892.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

EVERYTHING I said last month touching the remarkable activity in lumber circles this season can be reiterated with renewed emphasis and fresh detail. Lumber is booming. The daily shipments at the Chaudiere are heavier than for years. Prices are firm and stiffening. As will be noted from particulars I shall give further on in this letter appearances point to a continuance of the season's activity by enlarged operations in the woods the approaching winter.

A development in the class of lumber shipped to Great Britain is interesting to note. The call of the British market had until late years been altogether for square timber. John Bull had an idea that he could save his particular requirements far better than by one by the Canadian manufacturer. Consequently he had the logs trimmed down to what is known as "square" lumber. About ten years ago Mr. Cox, an American, regularly visits this market, and is by no means a supply of thin lumber, that is by no means a supply of thin lumber, that is by no means a supply of thin lumber. Since then the trade in "square" lumber has been increasing, our English friends are buying here cheaper than they are elsewhere, and the increase in this trade works

favorably for our mills, which of course secure the benefit of the extra outlay for sawing.

ANOTHER BIG LUMBER DEAL.

Lumber changes on a large scale in this district this season are becoming somewhat common. One of the most important is that completed this month in the purchase by I. R. Booth, of the booms, piers, mills and piling grounds, wharves, docks, and all the plants connected with the Perley & Pattee buildings in Ottawa. The price paid, to use Mr. Booth's words, was "under a half million dollars." The mills purchased lie alongside those of Mr. Booth. It is rumored that Mr. Booth has been planning for some time extensive improvements in the terminal facilities of the Canada Atlantic Railway at the Chaudiere, and this he could not accomplish without first acquiring the Perley & Pattee mill property. The death of Mr. Perley in the recent past opened the way for a sale of the estate of this firm. Mr. Booth will take possession of the newly purchased property at the close of the sawing season. Perley & Pattee have still 1,500 square miles of limits to dispose of. Just what their plans will be for the future is uncertain. One rumor is that they will erect new mills on their Petewawa limits.

Another large transaction that is likely to be closed any day is the sale to Mr. A. Lumsden of about 400 miles of timber limits on the Kippewa and Temiscamingue, the property of the late James Maclaren. The transaction is one representing from \$200,000 to \$300,000.

WORK IN THE WOODS.

Preparations for work in the woods are active. Buell, Orr & Hurdman have already sent about 100 men up to their shanties to make repairs for the opening of fall operations. Shepard & Morse have a large gang at work on their recently acquired limits on the Kippewa. The limits are familiarly known as the old Pierce limits. They will open ten shanties, and when their force is complete it will embrace 500 men. Alex. Gordon, of the firm of Booth & Gordon, who will operate on the Kippewa and Gordon Creek, says that they will send a large number of men into the woods this month. Other firms of the Chaudiere are moving in similar lines and the engaging of gangs of men for these purposes is a leading work of the month.

A NEW LUMBER CONCERN.

The purchase of the timber limits of the late David Moore, which took place on the 11th inst., has brought into existence a new lumber concern known as the Moore Joint Stock Lumber Company, and composed of E. D. Moore, C. A. Moore, F. D. Moore, W. Moore and H. T. Moore and Mrs. E. S. Skead. The company intend carrying on the business formerly carried on by their father and operations will be commenced this winter. Shanties will be opened at once and about 500 men will be employed getting out timber this winter. The Kippewa limits are thickly covered with excellent timber, and it is thought the firm will only take out square timber for the first year. The sum of \$255,000 was paid by the new company for the limits sold at auction, comprising eight berths, which cover fifty miles each.

SHORT PIECES.

Lumber shippers complain of a dearth of cars for the freight of local consignments, though there is every accommodation for export trade.

Messrs. Perley & Pattee will erect on the site of the old Baldwin mill, which is now being demolished, a power house for the Ottawa Electric Co.

Shantymen's wages will range the coming season from \$24 to \$25 per month, and arrangements with hands on square timber are being closed at \$40 per month.

Maclaren & Co. are negotiating the sale of all lumber piled in the Ottawa yards, about 6,000,000 feet. Rumor states that the Rideau falls power and the old Maclaren's mill will be sold by Edwards & Co. to an American syndicate for electrical purposes.

T. Walklate, superintendent of lumber for the C.P.R., is authority for the statement that the shipments of square timber from Chapeau and Eau Claire for England via Quebec are through for this season. Two million five hundred thousand feet have passed through his hands between these points.

Shepard & Morse will work their new Pierce limits with splendid energy. They will at once get out two rafts of square timber for the English market, which, it is claimed, will be of very superior quality and will fittingly inaugurate the company's operations. They will specially cultivate a South American trade turning out lumber adapted for that market. They will also go extensively into log making and lumber manufacturing on their own account. Mr. Robert Hurdman will be in charge of this branch of the work, and his long experience in shantying will be most valuable to the firm. Last year's cut of logs will be manufactured this year at Conroy's mill on Lake Deschene by arrangement with that firm.

OTTAWA, Ont., Aug. 22, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

SHIPPING intelligence tells of a fair measure of activity in lumbering circles. Several clearances and a number of arrivals are to be noted. The British ship Nineveh, 1174 tons, Captain Broadfoot, arrived in port in ballast on the 4th inst. from San Diego, under charter to load lumber at the Hastings mill for Sydney on owners' account. The same date the American barkentine, Robert Sudden, 594 tons, Captain Uhlberg, sailed from Vancouver with a cargo of lumber from the Hastings mill, consisting of 375,437 feet of t. and g. flooring, and 395,703 feet of rough lumber, making a total of 771,140 feet. The value of the cargo was \$8,797. She is bound for Iquiqui. On the 8th the Chilean ship Hindostan, 1,543 tons, Captain Welsh, sailed from Vancouver with a cargo of lumber from the Moodyville mill, consisting of 999,702 feet of rough, and 200,139 feet of clear lumber, making a total of 1,199,841 feet. She has also 1,503 bundles of laths, the value of her cargo being over \$11,000. The American schooner, Robert Searles, 570 tons, Capt. Piltz, has been chartered to load at the Hastings mill for Adelaide at 41s. 3d., and word is received that she had arrived at Port Townsend from San Diego. The Norwegian ship, Morning Light, 1,216 tons, which loaded a cargo of lumber for Melbourne the early part of the year, may probably load here again. British bark Zabena Gowdy, 1,087 tons, Capt. Manning, loading lumber at Vancouver for Wilmington, Del. Chilean ship Atacama, 1,235 tons, Capt. Caballero, loading lumber at Moodyville for Valparaiso.

COAST CHIPS.

Local trade holds its own.

The Brunette saw mill have closed up their Mud Bay logging camp for the season.

Houston and Wilson will shortly erect a machine shop and sash and door factory at Golden.

Messrs. Wiggins and Green have the honor of establishing the first steam saw mill on the River Tabusintac.

J. McLaughlin, one of the patients admitted to the Vancouver smallpox hospital, was an employee of the Buse saw mill at Hastings. The authorities are taking steps to quarantine the mill.

A considerable loss has been sustained with a boom of logs anchored in the cove between Deadman's Island and the Park, and many of which have broken away and passed through the Narrows.

Mr. W. Clark is in charge of a new camp at Hemming Bay for the Hastings saw mill. The camp will be situated on the lake and a railway will be built from the lake to suit water and the logs handled by locomotive power.

Among the exports from Nanaimo for the past quarter were 46,000 pickets and 1,715,000 feet of lumber valued at \$7,799 to Chili; 63,500 feet lumber valued at \$789 to Russia; 962,000 feet lumber and 132,000 laths valued at \$8,121 to Australia; and 54,000 feet lumber and six spars valued at \$699 to Gilbert Islands.

Dr. Dunn, late of Hall Bros. and Co., Three Rivers, Que., and Messrs. Rathbun and Co., Deseronto, Ont., has got employment at the Hastings mill in Vancouver. He worked at the building of the Maclaren-Ross mill till it was completed, then at Grant and Kerr's, Ladner's Landing, putting in additional machinery.

Although "Douglas fir" is classed as "Oregon pine" in Australian markets it is to be hoped that the duty they have imposed on the latter will not apply to the former. Should it not, shipments from British Columbia may be expected to increase shortly, even though that trade is very dull at present. The promises made the New Westminster Board of Trade that these numbers would be correctly named and quoted separately in their market has not yet been carried out.

The Brunette Saw Mill Co. have put themselves in good shape to fight the flames should circumstances require this step. They have purchased from the Gutta Percha and Rubber Manufacturing Co., of your city, who are well represented in this province by Mr. W. L. Ogle, a complete fire-fighting outfit, consisting of 500 feet of Maltese cross hose, hose reel, play pipes, and all necessary accompaniments. The fire hose is the same as is used by the city fire department, and the couplings are threaded so as to fit the waterworks' hydrants.

Mr. Sargeant's mill at Nelson broke all previous local records for fast sawing on Friday of last week, when one gang cut 97,230 sup. feet of merchantable lumber. The logs sawed were pine for about six hours; the remainder of the day they were cutting spruce. The men who can claim the greatest amount of credit for this big day's work are: D. Creighton, engineer; George Meagher, foreman; P. Gorman, edger, and Wm. Dolan, surveyor. On the same day the lath machine—Matthew Gorman, foreman—cut 48,800 laths.

NEW WESTMINSTER, B.C., Aug. 18, 1892.

THE NEWS.

ONTARIO.

—The planing mill of W. Donnel, Peterboro, has been enlarged.

—Logs are coming down the Gatineau in large numbers since the breaking of the jam at the Cascades.

—The McLennan steam saw mill, at Casselman, is well nigh completed and will likely be running in a few weeks.

—The employees of Cane & Sons, lumber, Newmarket, excused to Hiawatha island the latter part of August.

—McLachlin Bros., Arnprior, are about to build a new saw mill on the bank of the river a little south of the present saw mill.

—Negotiations are pending for the purchase of the Brennan & Sons sawmill property and timber limits in Bethune and Sinclair by the Rathbun Company.

—A lad named O'Neil, an employee of the Capital Planing Mills, Ottawa, lies in a critical condition from injuries received by a pile of lumber falling and striking him on the back.

—Messrs. Stone and Fagan are handling with success three large drives consisting of 100,000 pieces belonging to Dickson & Co., of Peterboro. These logs are from the Scott limits.

—Alexander Fraser's raft of square timber has been tied up at Portage du Fort, Que., owing to low water. The remaining raft of the season to pass Ottawa is Mr. Barnett's, of Renfrew.

—The Ontario Government will sell the unsold timber limits at the head waters of Madawaska, Pettewawa and Muskoka rivers. This sale is necessitated by the building of the Ottawa and Parry Sound railway through this tract.

—The Ashburnham saw mill of the Dickson Co. is kept busy sawing ties for shipment on the C.P.R. to various points. The C.P.R. have been loading cedar ties from the mill for the past two months. About a thousand are shipped away daily.

—Alex. Lunsden has passed over the Chaudiere slides a raft of pine timbers got out on the Montreal river. It is pronounced the finest that has gone down the Ottawa river this year. There are 140 cribs in the raft and the average is seventy feet.

—A jobber of the Ontario Lumber Co., named Robert Smith, who resided at Pembroke, and did business at Commanda Creek, Parry Sound, has left the country. There are some creditors, and one of them, Neil McEachern, took out a writ of attachment against Smith's property.

—Rumor has it that an American company will shortly commence work on the erection of a pulp mill near Pembroke. The mill will probably be used exclusively as a spruce pulp mill. It is also said that they have purchased a water privilege on the Pettewawa where they will establish a poplar pulp mill.

—An explosion of sawdust occurred in the Ottawa river just above Nepean Point, causing a sensation on the river and throwing the water about fifteen feet in the air. The sawdust bank formed below the Rock Island is gradually growing larger, and lengthened, so that the Hull ferry is obliged to run much out of its course to avoid it.

—A correspondent of the Peterboro Examiner from Young's Point says: "I must put in a good word for all the men on the drives that have passed through here so far this season. They have been most orderly. Scarcely a drunk man was to be seen and last week there were over two hundred men in and around here. This says a good deal for them."

—The following logs have been brought down the Ottonabee River and adjacent waters this season: Strickland and Co., 60,000 pieces; Dickson and Co., 225,000; The Rathbun Co., 100,000; Gilmour and Co., 46,000; Geo. Hilliard, 15,000, making a total of 446,000 pieces. A delay of about six weeks occurred owing to low water and high winds.

—A local paper is authority for the statement that an arrangement has been entered into by a syndicate whereby the executors of the estate of the late Mr. Hilliard, of Peterboro, have agreed to let them have the valuable mill property known as the Blythe mills, for a certain sum, unless they shall, on or before Monday, the 5th day of September next, receive a substantially better offer therefor.

The wholesale lumber dealers of Rat Portage, together with friends to the number of over 100, including many from Manitoba, excused to Rainy River on the 10th ult. Music was furnished by the Winnipeg band, and before reaching home Alex. Black, on behalf of the Retailers' Association, moved a vote of thanks to the wholesale dealers, which was carried with great cheering. Several other gentlemen, including Hon. R. Watson and Mr. Gilmour, also made short speeches, congratulating the hosts on the success of the excursion.

QUEBEC.

—Dobell, Beckett & Co., of Quebec, have purchased this year's lumber cut of W. C. Edwards & Co., of Rockland. The price has not transpired, but it is understood to be at full market rates.

—The Crown Lands Department of Quebec has made up a collection of samples of wood growing in the provinces for presentation to L'Ecloe Forestiere Nationale de Nancy, France. The samples are 4 x 8 inches, neatly planed, and the hardwoods varnished. The samples were as follows: Basswood, balsam, firwood, white spruce, white cedar, rock elm, white pine, hemlock, hard maple, white birch, white oak, white ash, tamarac, red and black oak, red cedar, black birch, butternut, red pine. A similar collection for the Chicago exhibition will be prepared.

—Two important actions have been entered for decision at the next sitting of the superior court at Aylmer, Que., by Messrs. Gilmour and Hughson, lumber merchants, against Mr. Alonzo Wright, ex-M.P. In the first action Gilmour and Hughson claim a certain strip of land situate and crossing certain lots in the sixth, seventh and eighth ranges of the township of Hull as their property. The land in dispute was formerly used as a deal slide connecting with an old saw mill, of which the old firm of Gilmour and Co. became proprietors several years ago. In addition to the property the plaintiffs also claim possession of the slide, which still is serviceable, and over Mr. Alonzo Wright's property adjacent to his residence and through the very center of his large and beautiful garden at Chelsea. The plaintiffs in the second action claim a portion of an island situated in the Gatineau river opposite Mr. Wright's residence which has been occupied by the defendant and used as a summer resort. Some time ago notarial protests were served at the instance of Gilmour and Hughson, requesting Mr. Wright's consent to a surveyor determining the lines in both cases, but the request was refused, hence the present legal proceedings.

MANITOBA AND NORTHWEST.

—Timber in the Cypress hills, Assiniboia, has been burning for some days.

—Capt. Robinson is building an addition to his planing mill at Selkirk, Man. He purposes putting in a saw and carriage with which to cut the logs taken out last winter at Fisher bay. The logs will be brought in on barges, as the captain thinks there is too much risk in rafting them in.

BRITISH COLUMBIA.

—The B. C. Paper Mill Co., of Alberni, has purchased the little steamer Lily, which they will use in connection with their business.

—Hill Bros. intend starting a saw mill with a capacity of 20,000 to 30,000 feet per day on Wilson Creek, near Eldorado, City, West Kootenay. The price of lumber there at present is \$100 per M.

—It has been decided that the Canadian building at the World's Fair shall be roofed with B. C. cedar shingles; and various other provincial woods, it is expected, will be used in the construction of the building.

FIRES AND CASUALTIES.

FIRES.

Kelly Bros. steam saw mill, at River Hebert, N.S., destroyed by fire; loss \$12,000.

A fire broke out in Moffat's planing mill at Carleton Place, Ont., but was discovered in time to be quenched by a Carr chemical engine.

The Lindsay Lumber Co.'s mills, Lindsay, Ont., were struck with lightning and the whole building was quickly wrapped in flames. The mill was burned to the ground and 200,000 feet of lumber, 200,000 shingles and a quantity of bill timber, the stables attached and some dwellings in the vicinity. The mills were built by Thomas Dean, of Lindsay, two years ago. The exact amount of the loss is not yet known, but it is considered to be between \$15,000 and \$20,000, with \$4,500 insurance.

CASUALTIES.

Two children, a boy and girl, were drowned while playing on logs, near Casselman, Ont.

A lad, Johnnie Wilson, nine years of age, was drowned while playing on a raft at Lanark, Ont.

Frank Moffatt had his fingers badly cut at Cane & Sons wood-working concern, Newmarket, Ont.

A lumber hand named Arthur Seguin, of Hull, Que., had his foot crushed while at work loading lumber.

Peter Bernard, knot Sawyer on the shingles in the M. and O. mill, Norman, Ont., had the index finger of his left hand cut off.

A millwright named John Linnock, employed at E. B. Eddy's paper mill in Hull, Que., had his arm severely crushed while repairing some of the machinery.

Hugh Reynolds, a young man, was recently drowned while working at the Pacific Coast Lumber Co.'s mill, B.C.

Mrs. W. T. Bell, while crossing the bay at Cameron and Kennedy's boom, in Norman, Ont., fell into the water and was drowned.

A little daughter of Mr. Hebert, of Bedford, Que., had all the fingers of one hand cut by the planing machine in Gault's saw mill.

Angus Mackay, while working at the planing mill at Tiverton, Ont., received a severe cut in the ball of the eye by a flying splinter.

Ed. Quinn, of Peterboro, Ont., is suffering from a severe wound in the abdomen inflicted when putting a belt on a pulley at his saw mill.

A boy named Frank Smith, ten years of age, was drowned at Humphrey's mill pond, five miles from Moncton, N.B., while playing on logs.

David Turnhill, of Paris, Ont., while at work with a circular saw in his factory, received a cut severing the forefinger entirely from the hand.

Joseph Gravelle, of Hull, Que., an employee of Perley and Pattee's mills, Ottawa, Ont., received severe injuries on his leg by a board striking him.

John Bulman, of Michigan, foreman in E. L. Pratt's lumber camp, in the Georgian Bay district, Ont., is reported to have been drowned a few days ago.

A millwright named D. V. Waite, in the employ of the Pacific Coast Lumber Co., New Westminster, B.C., lost three fingers while running a shingle machine.

Joseph Vaillancourt, a mill hand employed at the Deschene's mills, Ottawa, Ont., was struck on the head by a heavy belt, while it was in motion, and dangerously hurt.

Marshall McIntosh, a clerk on the drive of Barnett & Mackie, at Gordon's Creek, near Pembroke, Ont., was drowned while endeavoring to carry some chains across the gap.

E. B. Rochofson had the flesh stripped from two fingers in the left hand, and two fingers of the right hand badly bruised, when working at a band saw at the axe factory at Galt, Ont.

Maxime Villeneuve, working with the Keewatin Lumbering Co., Keewatin, Ont., while piling lumber last week had both bones of the forearm fractured by some of the lumber falling on him.

Henry Miller, when at work at the edging table in the saw mill of J. and J. R. Gillies, at White Lake, Ont., was struck in the abdomen with a piece of board, and died in a short time.

Alexander Brown, of McDonald's logging camp, near Victoria, B.C., was engaged loading logs on the cars when his foot slipped and he fell between the landing and the car, and was crushed to death.

David Hanson, of Hanson's Mill, on the Nashwaak, N.B., while working among the machinery was caught among the belting and thrown against the shaft securing a wound fully eight inches long in his back and extending into the spinal column.

Willard Thompson, an employee of Thomas Johnston's shingle mill, at Rat Portage, Ont., got his head in contact with a saw and received a wound four inches long and cutting deep into the head. He lost largely of blood before medical aid could be secured.

Fears are entertained that Edward Boilleau, a foreman in Bronson and Weston's mills at the Chaudiere is drowned. He was put on night duty on logs and has been missing since. Boilleau was an employee of the firm for years and was always regarded as a steady and reliable man. He was married and has a wife and three children.

As Barnett & Mackie's raft was passing the rapids at Duchesne recently, a crib struck on the rocks. One of the hands, Joseph Lafleur, of Little River, Que., near Carillon, was thrown off by the concussion and, despite the efforts of his companions, was swept over the rapids and whirled to death. Lafleur was forty-eight years of age and leaves a wife and four children.

At Morrison's mills, Fredericton, N.B., a belt which runs to govern the engine came off, starting the machinery at a prodigious speed. This burst the supping wheel, in which are set a number of knives for peeling the bark off cedar logs. The knives flew in all directions. Craig, who was standing about ten feet from the wheel at the time, was struck in the hip with terrible force and reeled to the floor unconscious. McCluskey and Rider, who were at a greater distance from the wheel, were also struck by some of the knives and painfully but not dangerously wounded. Craig was removed to the Victoria hospital, where he died a few minutes after his arrival. The deceased was fifty-five years old and leaves a widow and five children.

OSWEGO, N.Y.

OSWEGO, N.Y., Aug. 31.—Prices remain unaltered, with a fair trade doing.

Table listing lumber prices for Oswego, N.Y. including categories like White Pine, Siding, and Shingles with various grades and prices.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Aug. 31.—It would be idle to say that the great railroad strike, of which this locality has been the centre, has not interfered with business.

Table listing lumber prices for Buffalo and Tonawanda, N.Y. including categories like White Pine, Shingles, and Lath.

ALBANY, N.Y.

ALBANY, N.Y., Aug. 31.—The collapse of the strike in New York, with 15,000 men returning to work, has had a favorable influence on the lumber trades here.

Table listing lumber prices for Albany, N.Y. including categories like Pine, Shingles, and Lath.

Table listing lumber prices for Saginaw, Mich. including Sawed Pine, Clear butts, and Smooth lumber.

SAGINAW, MICH.

SAGINAW, Mich., Aug. 31.—At a time when holidaying is supposed to be the vogue we find dealers and planing mill men unusually busy.

Table listing lumber prices for Saginaw, Mich. including Uppers, Selects, and various sizes of lumber.

Table listing lumber prices for Saginaw, Mich. including Shingles and Lath.

NEW YORK CITY.

NEW YORK, Aug. 31.—To the cessation of labor troubles must be attributed the improved vim with which manufacturers and dealers have taken hold of business this month.

Table listing lumber prices for New York City. Includes categories like White Pine—Western Grades, Box, and Cullers' Examinations.

CULLERS' EXAMINATIONS.

THE following is a list of the successful candidates at the examinations for cullers' licenses under the Ontario Cullers' Act held by the Department of Crown Lands at various points in the province on 14th July last.

BRACEBRIDGE.—J. G. Anderson, Alpena, Mich., U.S.; J. W. Benson, Sturgeon Bay; Chas. M. Beck, Jr., Penetanguishene; W. J. Beatty, Coldwater; C. W. Burns, Jr., South River; A. E. Clarkson, Midland; E. Clairmont, Gravenhurst; W. F. Cameron, Sturgeon Bay; Daniel Connelly, Gravenhurst; John Dawkins, Gravenhurst; Jas. E. Doherty, Gravenhurst; Jas. W. Fallis, Sturgeon Bay; John Gadow, Parry Sound; Chas. Henderson, Bracebridge; John Johnston, Peninsula Lake; William McGown, Parry Sound; Thos McGown, Sr., Parry Sound; Patrick McDermet, South River; Angus MacKay, South River; A. J. McDonald, Longford; Angus D. McInnes, Gravenhurst; Alexander McKendry, Waubushene; John H. Newell, Parry Harbor; Sherman Palmateer, Gravenhurst; Michael H. Sheehan, Waubushene; Thomas Scott, Parry Sound; Lawrence Smith, West Saginaw, Mich., U.S.; Thos. G. Taylor, Gravenhurst; Thomas White, Parry Sound; William Watson, North Bay; Frank R. Weston, Midland.

BELLEVILLE.—George T. Bissell, Trenton; R. Marrigan, Deseronto; R. Baxter, Deseronto; T. A. Adair, Gananoque; Wm. Fisher, Trenton; O. W. Kemp, Trenton; C. B. Kirk, Queensboro; J. G. McCaw, Queensboro; J. D. Monaghan, Deseronto; Edward Brecaugh, Deseronto; Barney McAuley, Trenton; Thomas Fox, Deseronto.

SUDBURY.—James T. McDougall, Klock's Mills; James A. Sharp, Sudbury; Oliver Paquette, Webbwood; Harry S. Shanacy, Cook's Mills; Frank Johns, Nipissing Junction;

William E. Londry, Sault Ste Marie, Ont.; George Targor, Cook's Mills; Edward D. Jessop, Cache Bay; George A. Boyd, Thessalon; William Matheson, Chelmsford.

PETERBOROUGH.—Theodore Ludgate, Peterborough; Thos. Bick, Bobcaygeon; John Flaherty, Lindsay; Henry Jarkin, Marmora; Maurice J. Gorman, Fenelon Falls; George Wilson, Lindsay; William Albert Davis, Bobcaygeon; James Bray, Kilmount; Robert A. Dickson, Keene; Stewart Shea, Campbellford; David A. Cooper, Millbrook.

ARNPRIOR.—W. P. Kingsland, Ottawa; Fred. Buchan, Arnprior; John Harrison, Jr., Pembroke; Alex. G. Munro, Braeside; Frank N. Johnson, Ottawa; Harry Cox, Belvidere, Que.; Patrick Barrett, Arnprior; John B. Kerr, Arnprior; Thomas McNeely, Quebec; Archibald McBride, Arnprior; Thomas Vuill, Arnprior; Robert Owns, Beam Depot; Alfred W. Brundage, Pembroke; James Labelle, Waltham, Que.; Walter M. Ross, Ottawa; Walter Kennedy, Arnprior; Ed. Labelle, Waltham, Que.; Alex. W. Thomson, Arnprior; P. Munro, Braeside; John A. Gillies, Braeside; Thomas Broagham, Eganville; Robt. J. Blair, Arnprior; William Smith, Ottawa; Patk. Mangan, Arnprior; James Currie, Ottawa; Daniel Stewart, Braeside; Peter Marcell, Ottawa; H. A. Ruttle, Carlton Place; E. Hawkins, LaBreton Flats; Benedict Richards, Ottawa; J. D. Ladurante, Ottawa; Robt. L. McFarlane, Arnprior; Frank Halliday, Mississippi; James Halliday, Springtown; John Kennedy, Pembroke.

PERSONAL.

Mr. P. H. Colston, of Pembroke, Ont., widely known in the Ottawa district in connection with the lumbering business, has recently lost his mother by death.

Mr. L. A. Lewis, head book-keeper at the Brunette Mills, Sapperton, B.C., has joined the benedictines. The happy woman was Miss Nettie Dockrill, of Port Moody.

The death is recorded of Mrs. Charles W. Pitt, wife of the manager of the Ontario Lumber Co., at Burk's Falls. Mrs. Pitt was a great favorite and universally beloved by all who knew her.

Mr. R. W. Phipps, clerk of forestry for the Ontario Government, offers to mail to any LUMBERMAN reader, sending name and address, a copy of his recently issued and valuable report on Forestry in Ontario. His address is 251 1/2 Richmond Street West, Toronto.

Mr. Joseph Oliver, of the lumber firm of Donogh & Oliver, was elected D.G.M. of the Independent Order of Oddfellows, at the meeting of Grand Lodge held in Windsor, Ont., during the past month. Mr. Donogh is also prominent in the Order, being a P.G.M.

Colonel J. Armory Knox, of New York, the founder, and for many years, editor of Texas Siftings, has been visiting Ottawa on business for a lumber syndicate with which he is connected. He is not now in active journalism, though he contributes to his paper occasionally. He is a Scotchman by birth, and though he has lived in the United States he has never been naturalized, being still a British subject.

TRADE NOTE.

THE Waterous Engine Works Co., of Brantford, Ont., are meeting with good success in placing their band mill. A letter from R. & W. Conroy, of the Deschanes Mills, Que., published in their advertisement, is a very complimentary story. The Waterous mill is a decided change in style, with its steel columns with broad top and base in place of the one and two column mills which have previously been the only kind.

GREAT NORTHERN RAILWAY.

THE new transcontinental line of the Great Northern was opened for passenger business between St. Paul, Minneapolis and Spokane, Wash., on August 14th. Trains will leave St. Paul daily at 7.40 p.m.; Minneapolis 8.10 p.m. The solid new trains will embody every new device and comfort known to modern car builders. The coaches are of the newest roomy pattern, with high back seats, so well adapted to long distance travelling. Elegant sleepers and diners and free colonist sleepers will be used. Spokane will be reached on the morning of the third day after leaving St. Paul. The Rocky Mountains with magnificent scenery and the Flathead Valley will be passed in daylight. It will be the shortest line to Western Montana, Northern Idaho and Eastern Washington, and the only route to Columbia Falls, Kalispell, the Tobacco Plains Country, Jennings, Bonner's Ferry and the Kootenay mining region. Connection is made with steamers at Bonner's Ferry to Kootenay Lake, Nelson, Ainsworth Hot Springs, Kaslo, and the Slocan mining camps, in British Columbia. A vast area of mining, lumbering and farming country is opened to settlement by the completion of this line. The track of the Pacific extension is ballasted with rock gravel from one end to the other, and has the lowest mountain grades and easiest curves of any line in the west.

TRAVELLER AND SALESMAN FOR NEW YORK AND NEW England.—Wanted, a young man who has a good knowledge of lumber, chiefly white pine and hardwood, to solicit orders largely in the car trade. Apply with references and stating salary expected, to "Canada," office of this paper.

PACIFIC COAST SHINGLE TRADE.

THE Puget Sound Lumberman in its current issue, under the heading of "Growth of the Shingle Trade," gives a list of fifty-six new shingle mills established in Western Washington during the past six months. With British Columbia and Oregon to hear from, it is safe to say that over 100 new mills have been erected in the Pacific Northwest since January 1st. The daily capacity has been increased 5,860,000 by the building of these mills. With the estimate of the cut of shingles last year at 900,000,000, the increase of the capacity this year will bring the cut up to 2,800,000,000, an increase of 200 per cent. Machinery and other equipment for the new mills cost in the neighborhood of \$260,000.

In explaining the cause for this increased demand for shingles, the Lumberman says it arises from the popularity of red cedar shingles at the east, and that this popularity is due to the efforts of the North Pacific Consolidated Company. The Consolidated Company spent much money in advertising. First, circulars were sent to every dealer in the United States; then testimonials were mailed; then salesmen were sent out, and, lastly, cars were sent to country yards with orders to keep until sold. It was a rather risky experiment, because the white pine men did not fancy invasion into their territory, and then the deep-rooted custom of buying pine shingles had to be overcome. It was a long time before returns came in. It took eighteen months to get a dealer in Chicago to handle the cedar shingles, and it looked as if the advertising would go for naught. But orders commenced to come—slowly at first, it is true—and the tide was turned. Last year 400,000,000 shingles were sent east. This year the shipments will amount to over 1,000,000,000.

THE LUMBER TRADE ABROAD.

A Tacoma firm has sent a carload of fir to an Illinois agricultural implement manufacturing firm to be used for wagon box boards as an experiment.

A fortune awaits the dealer who will make a specialty of importing mahogany, rosewood, satinwood, etc., from the west coast of South America to coast ports, exchanging Washington fir.

On the 6th ult. fire destroyed the Schulerburg & Boeckler Lumber company's mill in Dutchtown, Minn. It is supposed the mill was struck by lightning. The mill and machinery were valued at about \$125,000, and insured for \$65,000.

If the Minneapolis mills are going to break the record this year and make 500,000,000 feet of lumber, the thing has got to be done the last half of the season. The boom scale for the first half of the season shows a slight excess over the scale for the same period last year, although sawing was commenced earlier in 1892 than in 1891. It begins to look as though the 500,000,000 mark would not be reached.

Michigan lumbermen still continue to invest money made out of pine boards in lake property. F. W. Wheeler & Co. have taken a contract to build a steamship of 4,300 tons for David C. Whitney, of Detroit, one of the same capacity in which Waldo A. Avery will own a half interest, both of these craft costing \$240,000 each. This ship-building firm has

contracts to build craft aggregating \$780,000. Eddy Bros., a Saginaw valley lumber firm operating a mill at Bay City, have put a large amount of money into vessel property and have contracted with the Detroit Dry Dock company to build a steamer of 4,500 tons, to cost \$225,000.

TIMBER BERTH
At Public Sale

BERTH NO. 35, CONTAINING 36 SQUARE miles, situated on French River, within about twelve miles of Georgian Bay. There is a large creek and a number of smaller streams crossing the same which empty into the French. It contains large quantities of pine timber and has never been lumbered on. Sale to take place on Wednesday, October 19th, 1892, at 2.30 p.m., at the Mart, King St., Toronto, Canada.

EXECUTORS OF JOHN BROWN (deceased)
Easton, Pa.

A SAW MILL
AND TIMBER
For Sale at Parry Sound

THE MILL IS SITUATED ON THE WATERS of Parry Sound and has good shipping facilities. The largest vessels on the lakes can load at the docks. The mill will cut about twenty thousand feet of lumber in ten hours, and twenty-five thousand shingles.

There are about five thousand acres of timber, pine, birch, hemlock, ash, spruce, basswood, etc. Some of the lots have pine and some the other timber, but all the lands are well timbered.

The Parry Sound Colonization Railway is now in process of construction to this point.

Apply to

WM. BEATTY,
Parry Sound.

AUCTION SALE

TIMBER
LIMITS

SAW MILL AND LUMBERING PLANT, ETC.

THE UNDERSIGNED ARE INSTRUCTED by Messrs. Mossom Boyd & Co. (dissolved by the death of a partner) to offer for sale by auction, at The Mart, King Street East, Toronto, Canada, on

Wednesday, the Twenty-third day
of November, 1892

commencing at twelve o'clock, noon, all their valuable white pine timber herths comprising sixty-eight square miles of virgin timber lands at west end of Lake Nipissing, tributary to Georgian Bay, and timber berths in the townships of Sherbourne, Snowdon, Glamorgan, Monmouth and Harvey, tributary to Trent River and Bay of Quinte.

Also their Sawmill at Bobcaygeon, lumbering plant, etc., etc.

For particulars apply to MOSSOM BOYD, Bobcaygeon, Ontario, or to

MESSRS. WICKHAM, THOMPSON & FITZGERALD,

Canada Life Building, Toronto, Ont.,

Vendors' Solicitors.



SCRIBNER'S
LUMBER AND LOG
BOOK

OVER ONE MILLION SOLD
Most complete Book
of its kind
ever published

Gives measurement of all kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round timber; hints to lumber dealers; wood measure; speed of circular saws; care of saws; cordwood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stave and heading bolts, etc. Standard book throughout the United States and Canada. Get the new illustrated edition of 1882. Ask your bookseller for it. Sent post paid for 35 cents.

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Box 238, Rochester, N.Y.

or A. G. MORTIMER, Toronto, Can.

J. J. TURNER

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251 George St. and 154 King St.

PETERBOROUGH

Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.

Every description of Lumbermen's Supplies and Waterproof Clothing.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

INSURANCE—FIRE AND MARINE. MILLS, manufactures and merchandise a specialty. Telephone at my expense.

R. CUNNINGHAM, Guelph.

FOR SALE

AT KINGSTON FOUNDRY & MACHINERY Co. (Limited), two Sawmill Engines, cylinders 13 x 21, fly-wheel 9 ft. 6 in. drain, driving pulley 7 ft. x 18 in. face—new—at a bargain.

WHITE BIRCH AND SOFT ELM
WANTED.

LUMBERMEN HAVING 1-IN. RED BIRCH and 1-in. dry Soft Elm, firsts and seconds, for sale, please communicate with W. W. BROWN, 202 Main Street, Buffalo, N.Y.

STEEL RAILS, ETC.

SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways. 20 pair wheels and axles, all in good second-hand condition, very cheap.

JOHN J. GARTSHORE,

49 Front Street West,
Toronto.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds, must be of uniform color; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Can also use Soft Elm Logs 20 in. and over in diameter for export; Red Birch Lumber, I and II, all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long, good squares.

Address all particulars as to dryness, quality, quantity on hand and price, to P. O. Box 2144, New York, N.Y.

Timber Limits

THOSE WISHING TO BUY OR SELL Canadian Pine or Spruce Timber Limits will please send particulars to

LEONARD G. LITTLE,

Room 13, Temple Building,
Montreal.

Rochester Bros.
: : COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

WILLIAM FOSTER

Lumber and Commission Merchant

RECEIVER AND FORWARDER OF

LUMBER, LATH AND SHINGLES

... CORRESPONDENCE SOLICITED ...

OWEN SOUND, ONT.

The Rathbun Company
DESERONTO, ONT.

MANUFACTURERS OF

Doors, Sash, Blinds, Stairs

And all kinds of House-Finishing Materials

CEDAR OIL for Purging Boilers

CORRESPONDENCE SOLICITED

SHINGLE MILL
FOR SALE

SITUATION :

The Tretheway Falls Shingle Mill is new, built 1891, on the South Branch of the Muskoka River, 5 miles from Bracebridge, near South Falls switch N. & N.W. R.R. With the mill are 5 acres of land, large boarding house, team horses, wagon, sleighs, etc., etc., in fact complete equipment for mill and lumber camp.

MACHINERY :

Consists of Little Giant Leffel Wheel (60 horse power), Boss Shingle Machine, Jointer, Splitter, Drag, Butting and Knot Saws; Endless Chain Burner, Bull Wheel, etc., etc. Building is 30 x 40 heavy frame, with room and shafting placed for second shingle machine. Belting complete and everything in good running order. Circular saw could be added with small expense.

TIMBER :

Is abundant for 50 miles above the mill on the waters of the South Branch—many townships being yet owned by the government—besides thousands of acres of decayed pine, four or five thousand acres of which can be bought immediately. There is also about 400,000 feet of timber at mill which can be purchased with it, so that buyer can commence cutting at once.

The estate must be wound up, and will bear the closest examination. For further information, address

THE CANADA LUMBERMAN,

Toronto, Ont.



AUCTION SALE

—OF—

Timber Berths

DEPARTMENT OF CROWN LANDS

(WOODS AND FORESTS BRANCH)

TORONTO, 27th June, 1892.

NOTICE IS HEREBY GIVEN THAT, UNDER Order in Council, Timber Berths as hereunder in the Nipissing, Algoma, Thunder Bay and Rainy River districts, viz.: in Biggar, Butt, Finlayson, Hunter, McCraney, McLaughlin, Paxton, Peck, and the northerly portion of Berth Forty-nine, lying South and West of the Wahnapitae Lake, all in the Nipissing district; the townships of Lumsden and Morgan, and a small portion of territory lying North and West of Pogomasing Lake, in the Algoma district; Berths One and Seven, Thunder Bay district; and Eleven, Twenty-seven, Thirty-six, Thirty-seven, Sixty-four, Sixty-five, Sixty-six, Sixty-seven, Sixty-eight and Sixty-nine, Rainy River district. Will be sold at Public Auction on Thursday, the Thirteenth day of October next, at One o'Clock p.m., at the Department of Crown Lands, Toronto.

ARTHUR S. HARDY,

Commissioner.

NOTE.—Particulars as to locality and description of limits, area, etc., and terms and conditions of sale, will be furnished on application personally or by letter to the Department of Crown Lands.

NO UNAUTHORIZED ADVERTISEMENT OF THE ABOVE WILL BE PAID FOR.

J. D. SHIER

MANUFACTURER OF

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 SPECIALTIES
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 Send for sample of our new SAWMILL BELT

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ALLIGATOR CHISEL-BIT SAWS
 THE CHAMPION STAVE, HEADING AND SHINGLE MACHINES
 ICE TOOLS AND MILL SUPPLIES
 CLEVELAND, OHIO

USE SPOONER'S HONOR BRIGHT
GOPPERINE
 BEST MACHINERY BOX-METAL EXTANT.
 CANADIAN MADE & STUMPS THE WORLD.
 QUALITIES TO DO ALL YOUR WORK.
 HARDWARES ALL SELL IT
 COOL BEARINGS NO HOT SHOE
 EASY AS AN OLD SHOE
 GENUINE SAFEGUARD FOR ENGINEERS
 HIGH CLASS METAL

ROSENBACHER & Co. Bankers, HAMBURG
 ADDRESS: CARL GARTNER, Agent HAMBURG

The Dodge Patent System

... OF ...

Rope Transmission of Power

Millmen having trouble with large belts by slipping and loss of power should write us for information on our

Patent Rope Drive System

Thousands of horsepower in use in the largest and most modern mills. We contract for the complete erection of Drives of any power.

10,000 Wood Split Belt Pulleys always in stock for immediate shipment.

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All kinds of Building Material kept in stock

WE MAKE A ... SPECIALTY OF LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK

Quotations furnished on application

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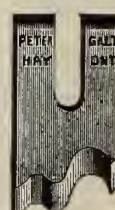
Particularly adapted for Dams, Smoke Stacks, Foundations, Culverts, Cisterns, Cellars, etc.

Endorsed by Leading Railways and Contractors

ROACH LIME

FOR BUILDING, PLASTERING, GAS PURIFYING, PAPER MAKING, ETC.

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Absolutely Fire-proof Deadens Noise
Does not Crack on application of Heat or Water
About as Cheap as Wood or Brick
Weight one-third that of Brick

TERRA COTTA FIRE-PROOFING

For use in Old and New Buildings

Gives Warmth in Winter; Coolness in Summer

MACHINERY

FOLLOWING LIST OF SECOND-HAND MACHINERY for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

- ONE 25-H.P. WATEROUS FIRE-BOX PORTABLE boiler on skids.
- ONE 8-H.P. FIRE-BOX BOILER.
- ONE 6-H.P. FIRE-BOX BOILER.
- ONE 4-H.P. UPRIGHT MARINE BOILER.
- ONE 12 X 16 SLIDE-VALVE BECKETT MAKE engine.
- ONE 9 X 12 SLIDE-VALVE MORRISON MAKE engine.
- ONE 6 1/2 X 9 SLIDE-VALVE COPP BROS. make engine.
- ONE 5 1/2 X 9 SLIDE-VALVE BECKETT MAKE engine.
- ONE 25-H.P. WATEROUS MAKE UPRIGHT engine.
- ONE 6-H.P. COPP BROS. MAKE UPRIGHT engine.

- ONE AMERICAN MAKE PLANER AND matcher in good order.
- TWO 34-INCH WHEELS BAND SAWING machines.
- ONE THREE-SIDE MOULDER, GOLDIE & McCulloch make.
- ONE ONE-SIDE MOULDER IN GOOD ORDER.
- ONE BLIND SLAT TENONER
- TWO UPRIGHT SWING SHINGLE MACHINES with jointer.
- ONE WATEROUS SELF-ACTING SHINGLE mill and jointer.
- ONE WATEROUS LATH MACHINE, THREE saws.
- ONE GOLDIE & McCULLOCH MAKE double cope tenoning machine, used eighteen months only.
- TWO PONY PLANERS, 24-IN., WITH COUNTERSHAFTS, Cant-Gourlay's make, Galt.
- ONE SWING CUT-OFF SAW.
- ONE WOOD FRAME TENONER WITHOUT copes.
- ONE WOOD FRAME SHAPER.

DONOGH & OLIVER



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ON EXHIBITION IN MY WAREROOMS

141 TO 145 FRONT ST. WEST, TORONTO, ONT.

Steam Drag Saw; 2 Automatic Sawing Machines
Improved Stave, Heading and Shingle Bolting Saw Machine
2 Automatic Shingle Machines and Jointers, Hall's Patent
"Grand Triumph" Drop Tilt Shingle Machine
Hall's Patent Shingle Machine and Jointer
Smallwood's Patent Shingle Machine
Swing Shingle and Heading Machine
New Goldie & McCulloch Shingle Machine
Two-block Shingle Mill; Shingle Jointers
Shingle Knot Saw and Jointer
Lath Mills; Shingle Packers
Stave Bolt Equalizer; Foot Stave Jointers
New Spoke and Axe Handle Machine
Double Edger; Edging Tables
Complete "Eclipse" Sawmill; Thomas Dill, maker
Four-head Block and Irons for Sawmill Carriage
Drag Saw Irons

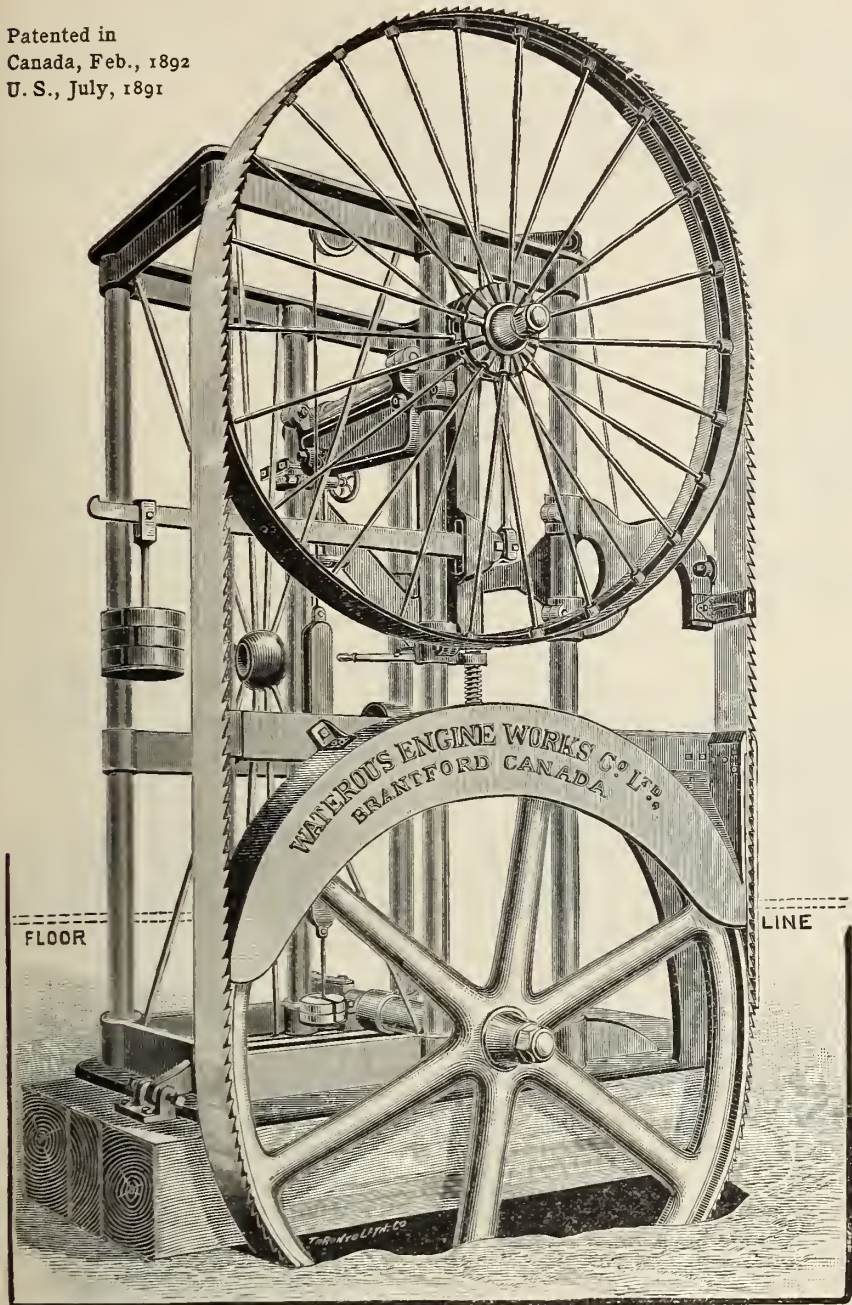
Winnie's Patent Hoop Coiling Machine
Winnie's Double Mandrel Hoop Sawing Machine
Winnie's Hoop Pointing and Scarfing Machine
Winnie's Double Hoop Planer
Log Hauling Jack, Chain and Spool; Log Cars
Circular and Crosscut Saw Gummers
Barrel Headers; Shingle and Lumber Saws
John Pickles & Son's English Surface Planer
No. 1 Improved Planer and Matcher; Cant, Gourlay & Co., makers
Revolving Bed Surface Planer; Cowan & Co., makers
26-in. Surface Planer; McGregor, Gourlay & Co., makers
Four-side Moulder; Goldie & McCulloch, makers
"Eclipse" Planer and Matcher; Cant Bros. & Co., makers
Four-side Moulder; McKechnie & Bertram, makers
Three-side Moulder; McGregor, Gourlay & Co., makers
Three-side Sticker; Cant, Gourlay & Co., makers

Three-side Sticker; C. B. Rodgers & Co., makers
Surface Planer; McKechnie & Bertram, makers
Surface Planer, 24-in.; C. B. Rodgers & Co., makers
Surface Planer, 23 1/2-in.; American make
Stationary Bed Planer; W. Kennedy & Sons, makers
Surface Planer; McKechnie & Bertram, makers
Sash and Moulding Machine; McKechnie & Bertram, makers
Three-side Moulder; Goldie & McCulloch, makers
One-side Moulding Machine; American make
Pony Planer, 24-in.; McGregor, Gourlay & Co., makers
New Improved Pony Planer; McGregor, Gourlay & Co., makers
Pony Planer, 20-in.; McKechnie & Bertram, makers
New Improved Pony Planer, 24-in.; Cant Bros. & Co., makers
Pony Planer, New Improved; McGregor, Gourlay & Co., makers
Pony Planer; Cant, Gourlay & Co., makers

Pony Planer; Cant Bros. & Co., makers
Pony Planer, 30-in.; Major Harper, maker
Pony Planer, 20-in.; McKechnie & Bertram, makers
Pony Planer, 24-in.; Frank & Co., makers
Pony Planer, 20-in.; Waterous Engine Co., makers
Pony Planer, 20-in.; Josiah Ross, maker
Pony Planer; A. E. Doig & Co., makers
Heading Planer; Goldie & McCulloch, makers
Buzz Planer, 16-in.; Cant, Gourlay & Co., makers
Buzz Planer or Jointer; Canadian make
Circular Re-sawing Machine; Cant Bros. & Co., makers
Circular Re-sawing Machine; H. B. Smith, maker
Circular Re-sawing Machine; McGregor, Gourlay & Co., maker
Tenon Machines, Jig or Scroll Saws, Band-sawing Machines, Power and Foot Morticers, Post-boring Machines, Swing Cut-off Machines, Saw Tables, Shapers, Sand-paperying Machines, Planer and Moulding Knives, Belting (Leather and Rubber).

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Canada, Feb., 1892
U. S., July, 1891



No. 2 Band, 8-ft. wheels, 10 to 12-in. saws, 43 ft. long.

WE CLAIM

Stiffest, Steadiest Mill built

Greatly Reduced Space Between Wheels, down to 12 or 14 inches

Ease of Changing Saws, only one lever to operate and tension not disturbed

Great Simplicity, all parts in plain view

Reduced Cost of Saws, only 43 ft. long

Most Sensitive Tension, entirely independent of straining device

The two boxes of upper shaft are connected by a heavy cast bracket, hinged to the triangular frame. The tension is applied to this bracket by weighted levers, so that the tension is most elastic and instantaneous, having nothing to move but the upper wheel, shaft and bearings. The triangular frame supporting these is moved by straining screw.

Our No. 1 Band for mills of smaller capacities has equally as good points, and has made relatively as good showing.

**WATEROUS
BRANTFORD
CANADA**

HIGH-GRADE
MACHINERY

THE WATEROUS BAND MILL

30-INCH FEED

To the revolution of a saw 43 feet long, running 10,000 feet per minute, is pretty quick work.

While watching the Waterous Band at Conroy's, men who ran single and double column American mills on the Ottawa, remarked:

"WE COULD CUT A THIRD MORE LUMBER IF OUR MILLS WOULD STAND THAT SPEED."

The Waterous Band is the steadiest and truest cutting mill built.

Heavy top and base plates, connected with 6 steel columns, gives great rigidity, permitting fast speed.



No. 2 cuts with friction feed and inadequate power 54,000 ft. per day

They threw out a circular and put in a Waterous Band, and are evidently well pleased with the change

Deschanes Mills, Tps. Hull, Que., Aug. 18, 1892.

Waterous Engine Works Co., Brantford, Ont.

Gentlemen,—We have pleasure in handing you herewith settlement for the band mill purchased from you this summer. The trial we have made of the mill for now nearly two months convinces us that the band mill is a most desirable addition to a saw mill, and, in fact, owing to its great saving in what has formerly been wasted in sawdust, should be considered a necessity.

We are more than pleased with the mill; it runs as true and steady as could be desired, cuts perfect lumber and does it rapidly, we having cut from unpicked logs 27,300 feet in five hours, 17,000 feet of which was three inch, the remainder one inch. We may frankly say that we hesitated a good deal about placing our order with you, and had the mill not come fully up to your warrantee you would have heard from us in a way probably not as pleasant as we hope this report will be to you.

We are, including our superintendent, Mr. Bisson, well pleased with the mill, and would certainly put in another of the same kind without a moment's hesitation. We intend increasing our power before another season, when we will have greater capacity with our band mill.

Yours very truly

R. & W. CONROY.

Order your Band Mills early for next year.

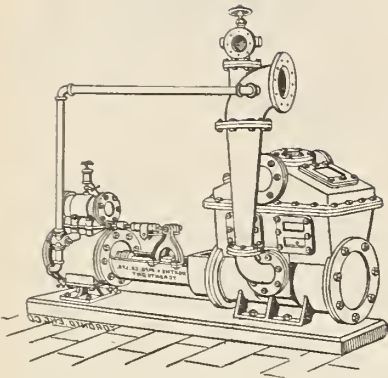
A Good Independent CONDENSER

IS A PROFITABLE INVESTMENT
IF YOU ARE WORKING YOUR
ENGINE HIGH PRESSURE

DON'T DELAY, BUT WRITE US PROMPTLY

NORTHEY MFG. CO., Ltd.

MANUFACTURERS . . . TORONTO, ONT.



OUR INDEPENDENT CONDENSER

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Uttersen	Conger Lumber Co.	Lumber, Wholesale and Retail	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 26 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 16m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	DOLLAR, JAMES	Lumber, Wholesale and Retail	
Bracebridge, Ont.	Bracebridge	Burton Bros.	Lumber, Shingles, Wholesale	
Bracebridge, Ont.	Bracebridge	Georgian Bay Consol. Lumber Co.	Lumber, Wholesale and Retail	
Byng Inlet, Ont.	Uttersen	Carswell, Thistle & McKay	Sawmill, Pine, Hemlock, Birch	Steam, Circular, 20m
Calabogie, Ont.	Calabogie	John B. Smith & Sons	Lumber, Wholesale and Retail	
Callander, Ont.	Callander, G.T.R.	Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Steam, Circular, 6m
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	Steam, Circular, 25m
Huntsville, Ont.	Huntsville	Heath, Taft and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 4m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Water, Band and Circular, 100m
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol. Cherry, White Ash, Hardwoods, Wholesale	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 4m
Norman, Ont.	Norman	Cameron & Kennedy	Lumber, Wholesale and Retail	
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Lumber, Wholesale	
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Com. Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Warton, Ont.	Warton	Miller, B. B.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Buckingham, Que.	Buckingham	Ross Bros.	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakay, John	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Sawmill, Pine, Spruce, Hemlock, Hdws., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Saw and Planing Mills, Sash, Doors and Blinds	Steam, Circular, 200m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Int. Fin, Spruce, Hardwoods, Wholesale	
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 25m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Gilled

RAILROAD WHEELS

OFFICES:

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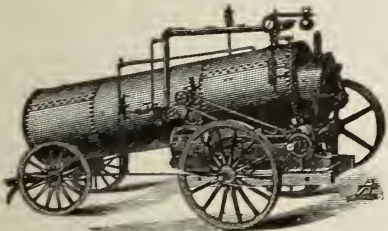
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Myrtle Navy
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T. & B.
 IN BRONZE LETTERS
 None Other Genuine



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 ILLUSTRATED **MACHINERY**
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Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.
 The 70 horse power can be taken over the roughest roads, or into the forest, and set up easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

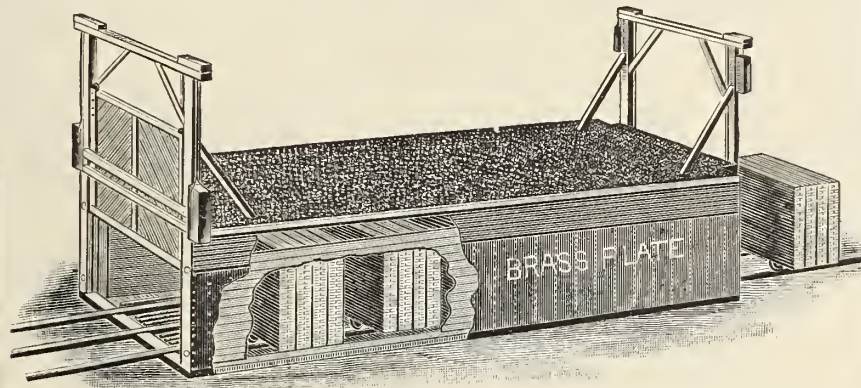
Write for circulars.

ROBB ENGINEERING CO., LTD.
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 ESTABLISHED OVER 40 YEARS.

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Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

The Andrews Process and Apparatus for Artificial Seasoning of Lumber will Save you Money in every one of the following items:

TIME	INSURANCE	MATERIAL
CAPITAL	YARD ROOM	LABOR
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YOU CAN NOT AFFORD TO BE WITHOUT IT

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BALDWIN, LUDINGTON, MANISTEE
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MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company line of Steamships across Lake Michigan.
 The line thus formed is a short and direct route from
NEW YORK BUFFALO MONTREAL TORONTO
 to **ST. PAUL, DULUTH** and Pacific Coast points.
 Write either of the undersigned for Folders, which contain Maps, Train Schedules and a great deal of information of value to those contemplating a trip to any of the above-mentioned points.

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A. PATRIARCHE, Traffic Manager.

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 To Sault Ste. Marie and Georgian Bay Ports

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Running in connection with the G.T.R. and C.P.R., will sail as follows:

The **CITY OF MIDLAND** and **CITY OF LONDON** will leave Collingwood every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same days at 10.30 p.m. after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and calling at intermediate ports to Sault Ste. Marie.

Steamer **FAVORITE** will leave Collingwood Mondays and Thursdays after arrival of morning trains for Parry Sound, Byng Inlet, French River and Killarney, connecting there with above line of steamers for the "Soo." Returning will make close connection at Midland on Wednesdays and Saturdays with trains for the south and steamer **MANITOU** for Parry Sound.

Steamer **MANITOU** will make regular trips from Penetanguishene, connecting with trains from the south, only at Midland on Monday, Wednesday, Thursday and Saturday for Parry Sound, connecting there with Steamer **FAVORITE** for Byng Inlet, French River and Killarney, where connection is made with above "Soo" line of steamers.

For tickets and further information apply to any agents G.T.R. or C.P.R., or to

C. E. STEPHENS, Sec.-Treas., Collingwood
W. J. SHEPPARD, Manager, Waubaushere

R. H. SMITH CO., LIMITED

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... OF ...

The "SIMONDS"
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The "LEADER"
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OUR HAND SAWS cannot be excelled for variety, quality, style or finish . . . REPAIRING PROMPTLY ATTENDED TO

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INCORPORATED 1888

We Manufacture SAWS of every description. Also CUTTING-BOX KNIVES



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-- PROPRIETORS --

Eastman Mill and Clothes-Pin Factory.

Eastman, P. Q.

August 24th 1892.

Messrs. Dominion Dry Kiln Co.,
Toronto, Ont.

Gentlemen:-

We have thoroughly tested the "Andrews" Lumber Dry Kiln furnished by you and must say that it more than surpasses our expectations. We put green Spruce lumber in from the saw dripping with water and in 18 hours it was drier than lumber that had been stuck up in the yard all summer, and in four days it was as dry as a bone, and without nearly as many checks or warps as the same grade air dried.

We have inspected several different patent dry kilns during the last three years with a view of choosing the best, and we are now satisfied that we have the best known process, and at about one-half (or less) the price of the Sturtevant process, which is the best except the "Andrews" which we have found. A very important feature of the "Andrews" Kiln is that it saves so much steam over that of any other system.

You may refer any one you like to us, or send them down to inspect, and we can satisfy them that what we say is true. We purchased kiln dried lumber in Montreal for Kiln building, which took three weeks to dry, and after we had steam on five days the same boards, 6 inches wide, had shrunk one-eighth of an inch, and they had been under cover from the time of receiving them until put on. Your kiln cannot be beat.

Yours truly,

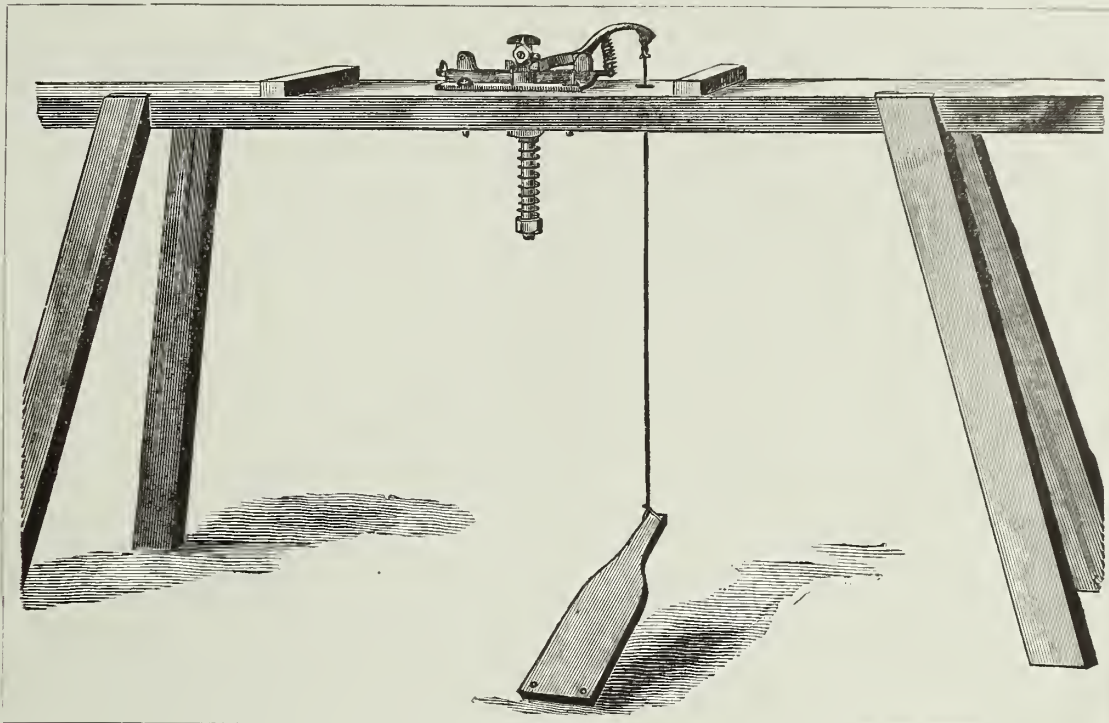
EASTMAN LUMBER CO.

for L. S. P.

The "CANADIAN" SAW-SET

PATENTED NOVEMBER 18, 1891

It is made in different sizes. Size No. 2 is made specially for Cross-cut Saws, and is strong enough to set any saw up to No. 10 gauge.
It should be placed in a vise or bolted on a plank, as shown in illustration, and worked with the foot.



It strikes a light or heavy blow, as desired, and every blow is the same. It is easily adjusted for any amount of set required, sets every tooth exactly alike, without any danger of breaking, thus making the saw run straight, cut easier and do more work.

PRICES

Size No. 1, for Shop use, \$2.00 each, \$21.50 per doz.
" 2, " Cross-cuts, 2.50 " 27.00 "

Made only by

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BREAKING STRAIN 6 IN. "CAMEL" HAIR BELT ----- 14,181 lbs.
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White Pine Lumber, Bill Stuff, Lath and Shingles
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THE TORONTO BLADE
THIN BACK
EXTRAREFINED SILVER STEEL
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ERBURNS SAW CO. TORONTO. ONT.



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ALL KINDS OF

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LONG SAWS

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FOR STEAM PACKING

FRICTION PULLEY BOARD

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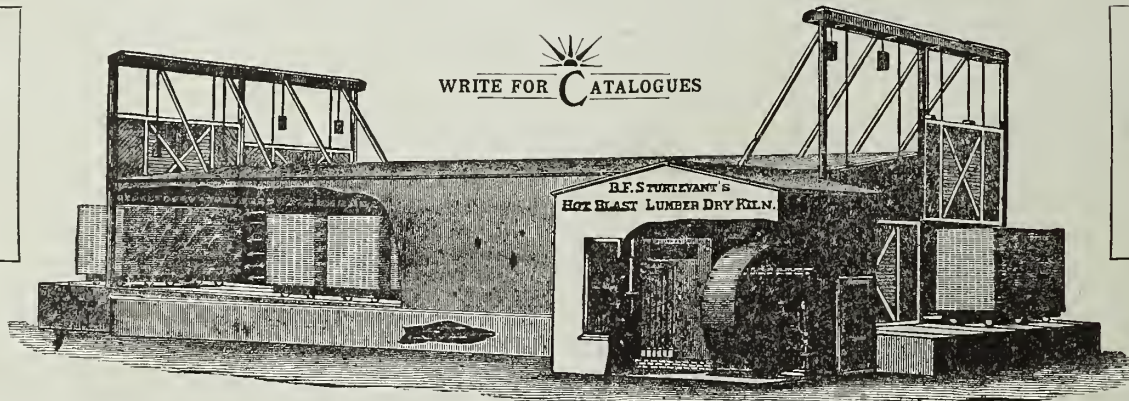
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Dries Hard and Soft Wood Lumber Without Warping, Checking or Bluing

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OTHER MACHINE OILS

Our CYLINDER OIL IS IN USE IN ALL THE BIG MILLS

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SAW MILL
AND
SHINGLE MILL
MACHINERY

Shingle Machinery a Specialty

REPAIRING PROMPTLY AND CAREFULLY EXECUTED

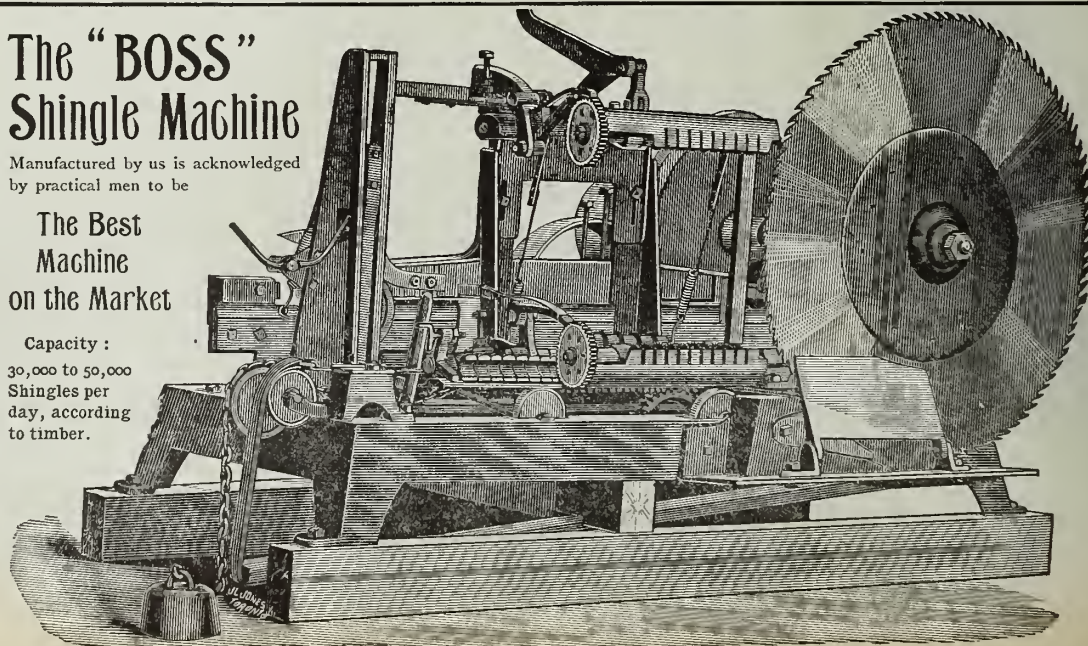
Gravenhurst, Ont.

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Manufactured by us is acknowledged by practical men to be

The Best Machine on the Market

Capacity:
30,000 to 50,000
Shingles per
day, according
to timber.



THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIII. }
NUMBER 10.

TORONTO, ONT., OCTOBER, 1892

TERMS, \$1.00 PER YEAR
SINGLE COPIES, 10 CENTS

MAGNOLIA METAL

In Use by Eight Leading Governments ...



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Chicago Office: 41 Traders Building
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74 CORTLANDT STREET
NEW YORK

THE MAGNOLIA ANTI-FRICTION METAL CO.
74 Cortlandt Street, New York, N.Y.

New York, N.Y., March 5, 1891.

GENTLEMEN,—About March 26, 1890, samples of metal marked "Spoooner's Finest Copperine Bahbit" were submitted to me for test; its test showed finest results, and on analysis, it proved to contain no copper, and approximated the formula of Magnolia Metal.

In October of the same year other samples with same marks were submitted for test, and tested in comparison with Magnolia Metal, upon our new testing machine, built at great expense. This test for temperatures showed Magnolia Metal to have less friction and a temperature of about 100 degrees less. On December 31st this perfected test piece of Copperine was tested again with the result of its fusing with ten minutes run of 1600 pounds to the square inch.

On January 31st Magnolia Metal was tested, which ran fifteen minutes with 1800 lbs. to the sq. inch, and one hour with 2000 lbs. to the sq. inch, and at the end of the hour the metal showed a temperature of 200 degrees Fahrenheit. Under separate cover we hand you detailed reports of the tests, showing velocity of rubbing surface about 2000 feet per minute, diameter of shaft 5 inches, and revolutions about 1500.

Yours truly,
H. G. TORREY.

NOTE.—Mr. Torrey is U.S. Assayer, and has been in U.S. Mint service at New York for 30 years.

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MONARCH, RED STRIP AND LION BRANDS.

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NO ROYALTY NO DELAYS

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FOR PUBLIC AND PRIVATE LINES

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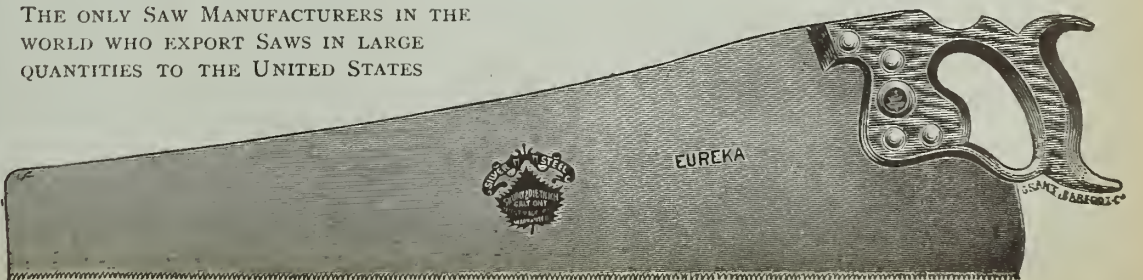
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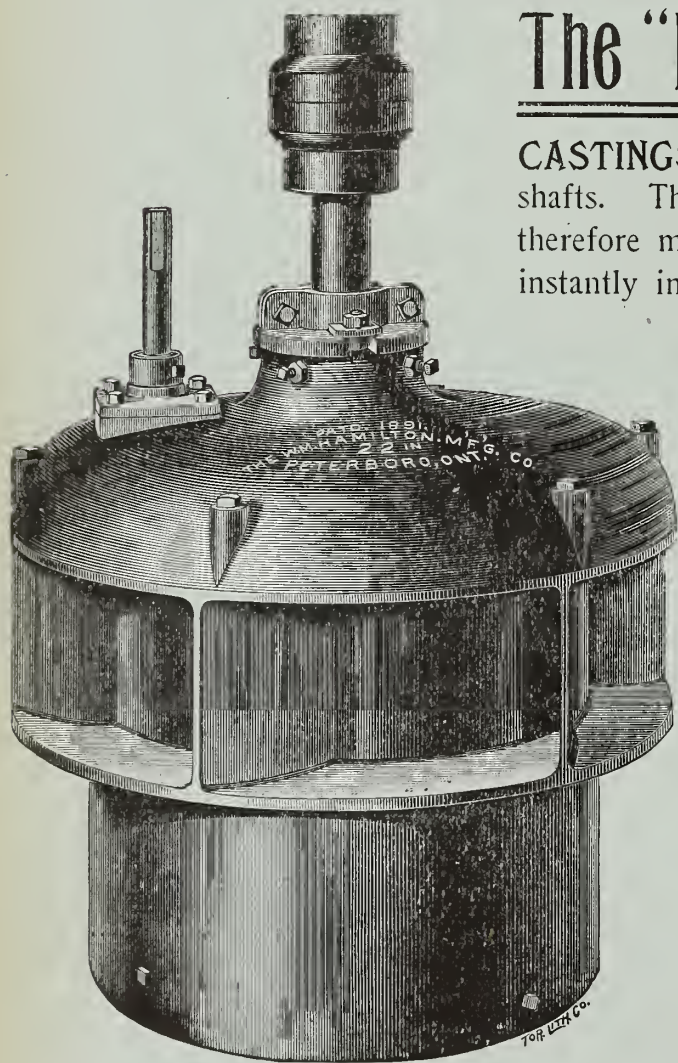
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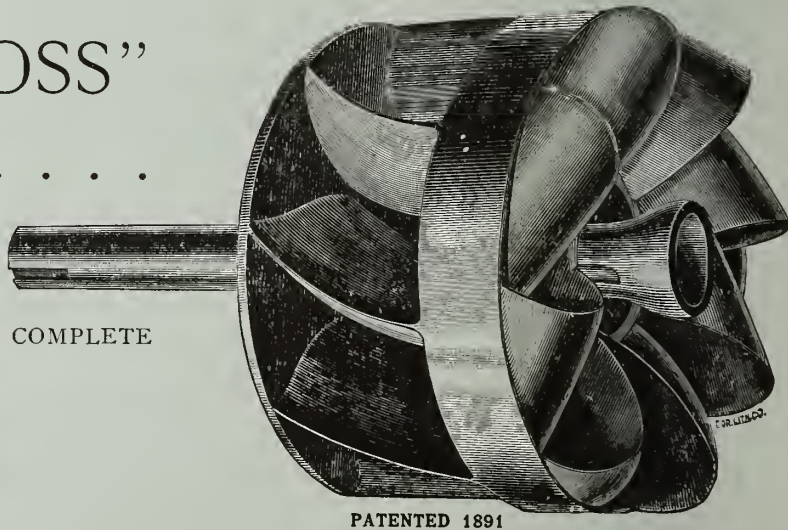
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BY THE WAY.

IN August of '93 the ten years' lumber licenses in New Brunswick will expire. The Government are reticent in announcing their policy, though intimate friends of those in power say that a change will take place. Not unlikely the matter will be kept in tempting position for some time pending a general election which is not far distant. This mixing of business and politics is bad business, if not bad politics.

x x x x

The Ottawa Lumber Co., of Ottawa, is at present making the experiment of shipping spruce logs from the Ottawa district to the United States. They have had the Canada Atlantic Railway put in a siding to the water's edge at Hawkesbury, Ont., to which place they have had their logs towed, and where they are loading them on cars and shipping them direct via Canada Atlantic Ry. to the States to be sawed up into lumber for consumption there. Should the shipment of 20,000 logs, which they are at present making, prove a success the same company intend taking out a much larger quantity during this coming winter to be shipped to the American market next season.

x x x x

The Pacific coast is obtaining considerable fame for its cedar shingles. We gave some particulars of the volume of this trade in the September CANADA LUMBERMAN, and our British Columbia correspondent has something to say on the question this month. Great durability appears to be a prominent feature of this shingle. An illustration of these lasting qualities is to be made, we understand, at the World's Fair, when a bundle of cedar shingles, taken from the roof of a house in Sequam Prairie, Washington Territory, and in use since 1853, will be exhibited. The shingles are in a good state of preservation. So not alone is the Pacific coast to be celebrated for its immense timbers, taking size as indicating immensity, but also for the rare quality of some of its timbers.

x x x x

Alarm, perhaps more suggestive than startling, is entertained in some lumber quarters that work in the woods the coming winter and the cut at the mills expected on the opening of another season, will run into figures large enough to create an overstocked market and bring lumber prices down again, as they were not very far back in the past. We do not know that there is strong ground for anticipating any result of the kind. No doubt work in the woods will be more active than for several years, and if no unforeseen obstacles intervene, increased numbers of logs will be taken out. But present requirements make necessary an enlarged output over some portion of the past. Certain grades of lumber are almost unobtainable at the present time, and if, as there is reason to suppose, general trade is on the up-grade, and better times are ahead, this scarcity will become more strongly marked. Still the word of caution need not go unheeded.

x x x x

The pollution of the rivers and streams of the lumbering sections of the country from sawdust and mill refuse has ever been a disturbing question between governments and lumbermen, and few questions are slower to settle. The sawdust dump at Ottawa has given no end of trouble to the people of the Capital, and the trouble remains. Some difficulty in similar lines is experienced in the province of New Brunswick, which has brought forth this comment in the last report of the Minister of Marine and Fisheries: "The question of the injurious effect resulting from the deposit of sawdust and mill refuse upon the salmon fishing in the river St. John,

and especially at the headwaters of this river, has engaged the attention of the fisheries department. In a memorial from the owners of saw mills on this river and its tributaries, praying for exemption from the statutes relative to sawdust and mill rubbish, it was set forth that no law existed in Maine on this subject, and that on that portion of the river St. John which formed the boundary between the United States and Canada there were at least eight or ten mills on the United States side to one on the Canadian side of the river, and that, as all the sawdust from the mills on the Maine side was permitted to be carried into the river without restriction, any benefit which could possibly result from a stringent enforcement of the law in New Brunswick would be very trifling and outweighed many times by the injury to the milling business in that place. In consequence of such representations the government of Maine was requested to consider the question in order that United action might be adopted by both the Canadian and state governments, and a promise was made that it would engage the attention of the legislature of that state."

x x x x

From what we have to say elsewhere in these columns it will be understood that the agitation for the reimposition of the export duty on logs is being carried on with unusual vigor in certain districts of the country. But it is not alone the Dominion Government who are hearing from the lumbermen. The following letter, addressed by Gilmour & Co., of Trenton, Ont., to the various boards of trade in localities affected by the shipment of saw logs to the United States, has started an attack on the Ontario Government that is not without a good deal of life. The big Trenton lumbermen say: "We see with alarm the large quantity of logs unmanufactured going annually from Canada to the United States, and the great disadvantage Canadians are at in bidding on limits put up for sale by the Government, owing to there being a duty of \$1 a thousand feet on lumber, while there is no export duty on logs. We would suggest, to overcome the trouble, that the Government be asked to postpone the coming sales, in whole or in part, until the present difficulties between the two countries in regard to canal dues, etc., are settled, or that a clause be inserted in the advertisement of sale, making it compulsory to manufacture logs in Canada, and we think that joint action should be taken by the lumbermen, bankers and others interested to decide on what is best to be done. We shall be glad to hear your views on the subject." This suggestion, like that for the reimposition of the export duty, has much in its favor providing its enactment would not react on the very interests it aims to conserve. To make it compulsory that all logs cut from Canadian limits should be manufactured in the country would be to place an embargo on the timber that would certainly operate against a successful sale. Then it is a question just how far such a step would be viewed as in contravention to the conditions entered into between the Dominion Government and the United States at the time the export duty on logs was removed. It is among the possibilities that it would lead to retaliatory complications that might be very injurious to the general lumber interests of the country. We are aware that the Ontario Government has nothing to do with the fixing of tariff rates, but it is a question how far the authorities at Washington would separate the action of the provincial from that of the Federal Government. These may be taken, possibly, as some of the reasons that have influenced the local Government in making their coming timber sale of the 13th inst. perfectly unconditional, so far, at least, as location of cut is concerned. In how far it is to be viewed as a strong home policy may be another question.

THE LATE JOHN M. DOLLAR.

IT was a matter of sincere regret to his many friends in Canada when news reached them that on August 17, John Melville Dollar had died at his home in San Rafael, Cal., at the age of forty-six. The deceased was born in Falkirk, Scotland, in 1846, and came to Canada with his parents when about eleven years of age, locating in Ottawa. Three years later he started shantying on the Gatineau river for Hamilton Bros., occupying the



JOHN M. DOLLAR.

position of chore-boy. He remained with this firm until he had reached the position of foreman. He left them to enter the employ of Perley & Pattee, on the Madawaska, being special agent with full charge of the firm's large operations in the Madawaska district.

He remained with this firm six years, removing in 1874 to Bracebridge, and, securing timber limits in Muskoka, he commenced business on his own account. He built his first mill at Midland, and there carried on a very successful lumber business. A few years later he entered into business with H. H. Cook and others under the style of the Ontario Lumber Co., this concern acquiring extensive limits in the Georgian Bay, Muskoka and Parry Sound districts. In addition to the Midland mill the company built large mills at French River, Mr. Dollar acting as manager until three years ago, when he sold out his interest in the business and removed to San Rafael, Cal.

In his new home Mr. Dollar entered again into the lumber business. In company with Mr. Fraser he purchased the Duncan Mills property, and the following year he bought the Markham mill, near which he owned a tract of timber. Success followed his business operations here, and though only spared to his work for a few years he had been successful in building up a very prosperous business.

A year ago he built a handsome residence at San Rafael. Mr. Dollar during his residence in Canada, and his residence in California carries a similar record, was ever ready to lend of his energies, talents and means to advance any good movement. He was an uncompromising opponent of the liquor traffic, and for years was active as a temperance reformer. In religion he was a Presbyterian, and at the time of his death was president of the Board of Trustees of the church in San Rafael. He leaves behind him a widow and three children to mourn his death. His host of friends, for his lovable nature made him friends wherever he was known in both countries, will long keep green in their memory the remembrance of honest John M. Dollar. Cancer of the stomach was the immediate cause of death.

ANOTHER APPLICANT.

A NEW claimant for lumber favor is the Lumberman's Review, published monthly by John G. Staats, of New York. It is tastily designed and printed, and, as an old lumber journalist, Mr. Staats is sure to make an interesting and valuable paper of the Review.

IS PERPETUAL MOTION POSSIBLE?

THE reply to this question, says the Scientific American, depends entirely upon the limitations put upon the term "perpetual motion." If we understand these words to mean a machine that would start itself, furnish power for doing work, and continue in operation so long as required, or until worn out, without the assistance of any external agency, we may say with the utmost confidence, perpetual motion is impossible.

If, on the other hand, we define perpetual motion as a machine dependent for its action upon the variability of one or more of the forces of nature, we may say perpetual motion is possible. The thermal motor, in which expansion and contraction are produced by natural changes of temperature, is an example of a motor of this kind. In this machine, the changes in volume in a body are made to store energy to be used in continuous regular work. A perpetual clock has been made on this principle.

Sun motors of various forms have been devised, which might be used in connection with storage mechanism for furnishing power continuously. A sun motor of sufficient size with a suitable storage system, could furnish power the year round in almost any part of the world; success being a question of hours of sunshine and capacities of motor and storage system.

Of course, what is said with regard to the sun motor applies with equal force to water wheels, windmills, tide and wave motors. Without doubt, all of these prime movers will come more and more into use as time advances, and storage systems are perfected. Still they do not satisfy the seeker for the ideal perpetual motion. This should fill the conditions first mentioned; but, as we have already said, this is an impossibility.

The first and strongest reason for making this positive assertion in regard to the ideal perpetual motion is found in the fact that never in the history of man has he been able to make a single atom of matter, or create the smallest fraction of a unit of energy.

All the works of man, of whatever name or nature, have been constructed of materials already in existence, and all the work done by man and his machinery has been accomplished by using current natural forces, such as the gravitation of water, the power of the wind, and the heat energy of the sun, or the stored energy of coal and other fuels, or of chemicals.

Having the command of some of nature's forces, inventors have sought to circumvent nature's laws, so as to make water "run up hill," to cause masses of matter to act alternately in accordance with and in opposition to the law of gravitation; in short, to deprive matter of gravity while ascending, and cause it to act with the full force of gravity while descending.

Among perpetual motion devices of this class, proposed and tried, is the one having weights arranged on a wheel in such a way as to fall outwardly and increase the leverage on one side of the wheel, while they fold in and diminish the leverage on the opposite side of the wheel. This machine, it is needless to say, has never moved on its own account, although it has become classic.

In this device, the superior number of weights on the side where the leverage is least, exactly balances the weights at the ends of the extended arms. This is true of all the modifications of this type of machine.

A favorite device of the perpetual motion inventor is that of weights arranged around the periphery of a wheel and counterbalanced by springs on which gravity has no effect. Such weights being balanced are supposed to be capable of being moved upwardly in opposition to gravity without the expenditure of much power. After having been elevated, the weight, while maintaining its position relative to the wheel, descends, causing the rotation of the wheel. After it has done its work the weight must be restored to its original position before the operation can be repeated, and here comes the rub. Many very ingenious plans have been tried to accomplish this, but the result has always been a perfect balance.

In another device the attempt is made to utilize the Archimedian screw to elevate water to be used for driving itself. The inventors in this case fail to notice that although the water is running down an incline in the screw, this incline is always being elevated, so that

the water must be actually carried up an inclined plane by a force as great as it would exert if allowed to descend through the same distance. In all these cases friction is left out of the question.

Capillarity has been tried as a means of elevating a liquid to be used as a motive agent, but in this case, as in all others, the defeating element is present—the surface tension of the liquid prevents detaching the liquid from the upper end of the capillary conductor.

It seems strange that in these days the proposition should be made to run an electric motor with a current from a dynamo by the power derived from the electric motor, yet, absurd as this proposition is, it has often been broached in good faith. A mere superficial examination of this subject shows that the losses incurred in transforming the current into motive power, and vice versa, are such as to defeat any attempts of this kind.

The permanent magnet appears to have suggested itself to many as a possible solution of the problem, and experimenters have searched the world over to find an insulator of magnetism to act as a cut-off for releasing the armature after it has been drawn forward toward the magnet; but no such material has been found. Nature, in this case as in all others, refuses to yield energy without its full equivalent of energy in some other form, and the law of the conservation of energy is found to hold good.

We have mentioned but a few of the multitude of devices constructed with the hope, not to say expectation, of producing a self-moving machine by utilizing nature's constant and unvarying forces.

Although the efforts of inventors in this direction have been barren of results of the kind aimed at, yet their labor has not been fruitless; many experimenters who considered actual trial better than any amount of study or calculation have learned that "knowledge comes of experience," and while discovering the fallacy of the ideal perpetual motion, they have been led to consider more practical subjects; making inventions which have proved beneficial to the world and profitable to themselves.

If the inventor of machines intended to be self-moving will not accede to Newton's statement that "action and reaction are equal and opposite," (third law of motion), and that there is a perfect and wonderful balance in the forces of nature, let him thoroughly acquaint himself with the principles of physics, and he will ere long be able to say with certainty just how the balance will occur in any and every perpetual motion machine of the ideal kind, and admit that he has not the power of creating energy.

THE HISTORY OF SAWS.

BY JOSHUA OLDHAM.

THE invention of the saw proper is attributed to the Greeks, about 1200 years B.C. Talus, a nephew of the king of Athens, has the credit of the invention. He was an architect and sculptor. He invented the saw, lathe and compass. His inventions—especially the saw—made him famous, and excited the jealousy of his uncle, the king, who was also an inventor, and who killed him by pushing him off a tower.

Saws have been found in Europe belonging to a remote age, the earlier ones of flint, the later ones of bronze. The natives of the West India Islands made saws from sharks' teeth and notched shells. The later history of saws, that is, in the sixteenth and seventeenth centuries, is meager. The saw mill was first run by water, in France, in the twelfth century; by the English, in New England, in 1634; by the Dutch, in New York, in 1633, and in England previous to that date. England seems to have been behind other nations in using saw mills. In London, in 1663, a native of Holland built a saw mill, but was prevented from working it by the threats of the hand sawyers, and in 1767 a sawmill operated by wind, was destroyed by a mob. In 1682, Maine built a number of mills. The first saw mill built in Canada was located near Montreal.

The circular saw was patented by Samuel Miller in 1771. He was a resident of Southampton, England, and secured his patent from the English Government. William Newberry, of London, was granted a patent in 1808 for a "machine for sawing wood, splitting and paring skins," etc. This machine contained the essential

parts of our present band-saw machine. There was no haste in taking hold of these inventions. Miller's patent was issued in 1771, but it was not put into use until 1790. The band-saw, patented by Newberry, lay idle for forty years.

The first band mill erected in America, for sawing logs, was built in 1864, by James Shearer, of Montreal. The machine was constructed in the mill and the saw obtained in England. The saw soon broke, and the mill was a failure. F. Arbey, of Paris, France, manufactured the first band mill successfully used in sawing logs. The first one brought to this country is still in operation at Quebec, Canada. Sheffield, England, the birthplace of cast-steel making, has the credit of making the finest band saws. It still retains a large share of trade in saws and saw steel, though the secrets once held so dear have become public property. At one time, in fact for a number of years, only one man knew the secret of making cast-steel. It was discovered by a trick or deception and made public.

THE DESTINY OF TEAK.

IT is not alone at home but also abroad we hear of the depletion of the forests of their most valuable timbers. Mr. Stringer, the British consul at Chiengmai, in the heart of Northern Siam, in his last trade report, mentions that the teak trade on the Meinam is declining at an alarming rate. At Chainat, the customs station for the upper part of the river, 60,000 logs of teak passed in 1889, 30,000 in 1890, and only 9,500 last year. This is due to deficient rainfall and to the effect of the indiscriminate working. Teak saplings are cut down in large numbers, and the clause in the leases forbidding the felling of small trees is disregarded. The consequence is that in Chiengmai there is reason to fear that in five years the only teak left will be that which is too far from the water to be profitably worked, and in Lakhon the foresters complain that all the best trees have already been felled. The general opinion of teak merchants and foresters is that there are large quantities of teak in the valley of the Meikong, and that it could be floated down that river to Saigon, but none has yet reached that port. The merchants who work teak on the Meiyon complain of the timber stealing which goes on at the rafting station on that river. The stolen logs are often fired with kerosene to deface the hammer marks of the owners. The present system of granting forest leases for three years only is said to be very prejudicial to the interests of foresters. In many cases the leases are renewed when they expire, but a forester who is not fortunate enough to secure a renewal of his lease may find that at the end of three years his logs are still lying in the forest, as it takes at least three years (generally much longer) from the time the teak tree is girdled, to fell it, lop off the branches and drag and float the log out of the forest, and if the wording of the lease is strictly adhered to, all logs lying in the forest, as well as girdled trees, become the property of the owner of the forest as soon as the lease expires. Previous to 1888 the leases granted to British subjects was generally for a term of six years, but in that year the time was reduced to three. The greater part of the capital with which the teak trade of Northern Siam is carried on is British. The Chiengmai forests on the Salween side are worked almost entirely with British Indian capital from Maulmain.

Teak, of latter years, has played a prominent part in all the great naval arsenals of Europe, and its consumption, unlike that of oak, has kept pace with the rapid changes in our coast defences. It is largely used for railway carriage building and other purposes for which it is especially adapted. Teak, unlike the majority of hardwoods, is easily workable, of very close grain, and from its oily nature almost imperishable. Being almost the only source of wealth of the Chiengmai country its rapid destruction as described by Mr. Stinger, becomes a matter of serious concern from the local as well as the broader point of view.

FINE WOOD-CARVING.

THE Austrian wood-carving industry will be specially represented at the World's Fair by thirty-four expert wood-carvers from Vienna, who will exhibit their work in its various branches. A thoroughly representative collection is expected.

VIEWS AND INTERVIEWS.

Don't Do it.

The old story about a man losing a finger at a buzz saw, and the man who took his place losing one of his fingers while showing how the first accident (?) happened, is familiar to all. Many a machine operator has been injured just this way. An English paper tells of just such a case: On Monday an engine driver in the Duke of Sutherland's estate yard, at Trentham, got his arm broken in the machinery, and Thomas James temporarily took his place. On Tuesday James was doing what has more than once proved a most dangerous thing, namely, showing another workman how the accident occurred, when he himself was dragged into the machinery, and mangled beyond recognition.

The Cause of It.

It is the opinion of Mr. C. R. Tompkins, a well-known writer on mechanical topics, that there is a lack of system in most wood-working establishments. This is the reason why, in his opinion, competent men to fill good positions are scarce. "Wood-working, until very recently," he says, "has not been recognized as a regular trade, and such a thing as apprenticeship has not existed. Not one young man in fifty who applies for work in mills does so with the slightest intention of making it a permanent business. He takes a job at feeding a certain machine for the present, but, like Mr. Macawber, he is waiting for something to turn up. After working six months, more or less, he is off for something else, and the situation is open for the next one, with the same result. As long as this state of things exist, just so long will good, competent wood-workers be scarce."

Baled Sawdust.

Despite the volubility of the average stump orator the age appreciates condensation. The day of elaborately-written, long-drawn-out editorials has gone by. Newspaper readers want their matter boiled down into a reasonable compass. The grocer gives us condensed coffees; the pharmacist would have us grow fat on essence of bovine; even the infant of a day is to be nurtured on some concentrated concoction of animal milk. Shipping space is made for so bulky an article as hay by compressing it into blocks of baled hay. A clever Yankee woodman, hailing from the state of Maine, has conceived, what is proving to be, a very profitable idea, of utilizing the immense quantities of sawdust, that gather around every sawmill, by compression. Thousands of tons of sawdust are pressed into compact blocks and bales, and in this form is finding a ready market for kindling and fuel in eastern cities. Next!

Exchange On Cheques.

"A source of petty losses," says an exchange, "that aggregate to a considerable amount in a year's trade is the exchange on unaccepted checks payable at outside banks. This exchange is one-quarter of one per cent. for most banks outside the city, and the minimum charge is twenty-five cents. Hardly anyone who sends a cheque in payment of an obligation is ignorant that the cashing of it will cost the creditor from twenty-five cents upwards, and yet that way of remitting is very largely in favor, and is resorted to quite freely for small amounts, so that the commission for exchanging is material deduction from the profit on the transaction for which the money is paid. Some houses request payment to be made in currency, when the amount is small. That rule should be generally observed, and either cash or post-office order should be forwarded for small sums. The trader has been benefitted by the credit and should bear the charge of transmitting the money."

A Long Voyage.

The lumber interests of the Australian colonies are now represented by a bright little monthly named the Australian Sawmiller, which made its appearance a few months ago. In the current number it has this remark concerning the shipment of lumber from the Pacific coast to England: "If it were possible to get the splendid timber grown in British Columbia to England at anything like a reasonable cost there would be a vast trade open to our Canadian cousins; but even the pine

regions along the sea-coast are very badly handicapped in consequence of the heavy freight and insurance, and the uncertain dates of the delivery of cargoes in Europe. Although the timber is grown in northern latitudes not more than 6,000 miles from England as the crow flies, a voyage of just three times the distance has to be undertaken. Leaving Canada, the ship is compelled to sail southward 8,000 miles, and after rounding Cape Horn to steer a northerly course of another 8,000 miles before she reaches the same parallel of latitude whence she started; the voyage is, moreover, one of the most perilous that shipmasters have to face."

Murder Will Out.

Whether applied directly to the crime of murder or some less terrible transgression, in nine cases out of ten "murder will out"—some day the guilty one will be brought to book. The remark is suggested by the confession of Alfred Henshaw, at one time a lumberman in Strathroy, Ont. Ten years ago Henshaw was partner with one Richard Drake in the lumber business in Strathroy. The firm became involved in financial troubles. Drake found fault with Henshaw's conduct, and one night in a quarrel Henshaw stabbed him to death in the office, locked the body in the safe, and fled. Ten days later the body was discovered, but no clue could be found to the murderer. Large rewards were offered, but nothing came of them. Six months ago a son of Drake offered two local detectives \$1,000 if they should capture his father's murderer. The men accepted, and after a long chase through New York, Mexico, San Francisco, Chicago and Michigan, a fortnight ago they finally located Henshaw at Harrisville, Mich. He was placed under an examination, and there broke down and confessed to the murder. Henshaw is one of the most wealthy citizens of Harrisville.

Where the Lumber Goes.

No one will dispute the immense quantity of lumber that goes somewhere every year. Thousands upon thousands of feet, worth thousands upon thousands of dollars, have in the past gone up in smoke. More will in the future, we fear. Perhaps as great a quantity, more in past years than latterly, has been wantonly wasted. Even yet the supply does not appear nearly exhausted except when we view the field in isolated parts. Then one must admit the question at times looks serious. We are each year on this continent cutting and manufacturing millions of feet of lumber. Where does it all go? A writer in the Tradesman remarks that it is the custom to predict a good or bad trade in lumber for a given section of country according as the crops are full or short, and the probable price of farm products. "Really," says this authority, "this is one of the least factors in the lumber trade. Taking the entire country over, the farmers consume probably not more than ten per cent. of the annual lumber output. The main effect that good or poor crops exert upon the lumber trade is of a secondary or reactionary nature. Good crops and prices make general business prosperous and conditions favorable for a good lumber trade. Where is the most lumber consumed? In the cities and towns to the extent of about ninety per cent., it is estimated, not counting that usually along the lines of railroads, and also leaving out of the count heavy timbers for country bridges, etc. For what purpose is the greatest amount of lumber used? Nine people out of ten will unhesitatingly say for the construction of houses and buildings of all kinds. It is doubtful if as much as thirty-five per cent. of the lumber output goes into buildings. The railroads, farmers and miscellaneous purposes take about forty per cent., and the other twenty per cent. goes into—boxes. This statement is somewhat startling, simply because the matter has never been discussed extensively, and very few people have ever given the subject a thought. The estimate is made on the judgment of some of the oldest and best informed lumbermen in the country. When we come to think about it we begin to realize the vast amount of lumber that is annually put into boxes of various sizes, sorts and kinds. Every store in the land, from the mammoth wholesale houses to the little country stores and the logging camps, has its complement of boxes. Every freight car loaded with miscellaneous freight carries it in boxes.

Every farm house is supplied with them. The streets of the cities and towns are lined with them. Nearly everything that cannot be handled in bulk is put in a box, barrel or keg. Whenever one gets out of sight of a box he may know he is out in the country. The amount of lumber used by the farmers, while largely on the increase in the aggregate, is not increasing much per capita. Wire for fences, iron for gates and corrugated iron for out-houses, are taking the place of lumber. A great deal more iron is used for structural purposes now than ever before, and the very low prices that rule encourage increased use of it. But iron cannot be used extensively for box making. Even metallic burial cases are going out of fashion. So we find that about one fourth of our wood products finds its way to the box makers."

WHY SAWS HEAT.

BY J. H. MINER.

THERE are many causes for a saw heating and therefore cutting lumber crooked. Heat on the rim is more destructive to saws and lumber than heat in the centre of the saw.

What causes the rim to heat and make crooked lumber? Too much lead in the mandrel, bad filing, short teeth with no dust room, teeth too high on the back and saws with too many teeth, lack of tension, guides binding by one pin being above the other, pins not properly made split the bottom and heat the rim, rim crooked, saw out of round, too large a gullet and teeth filed at an angle on the face. All of the faults mentioned, except the tension and crooked rim, no sawyer should be troubled with. Crooked rim comes under the head of hammering, which any intelligent filer can learn.

A saw with a loose rim has many peculiarities, and has caused sawyers to be held accountable for crooked lumber when the saw was not hot.

The impression of many sawyers and millmen is that a saw is hot when it runs a crooked line, and that a cool saw cannot run a crooked line. This is a mistake. A saw that gets so loose on the rim that it flops around in standing up and runs all over the log until the centre gets hot, ought to be hammered.

No millman who has an idea of the money thrown away by such saws would hesitate a minute to have it hammered. This looseness of the rim grows on a saw by use; it is not necessarily anyone's fault if the saw has been taken care of.

When a saw don't run well for a few lines (and often two or three logs) in the morning, rest assured your saw is weak on the rim. By holding a handspike end between frame and eight inches from collar, heating it well by friction, your saw will go right until the centre cools; if the mandrel rim is warm, it will help out. All this is temporary, and should not be practiced.

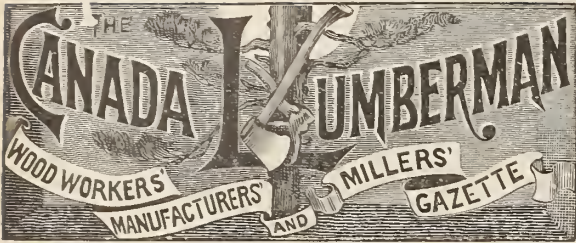
New saws generally suffer from heat at the centre, and many are soon ruined by two or three variegated blue spots. This is caused by too little lead to mandrel, saw pulled out of the log with the guide or file, too little set, saw too dull, carriage track out of level or not straight, side motion to carriage and too much motion to mandrel.

A saw with too much tension will heat when everything is all right. Care must be exercised not to allow it to incline out of the log, or it will permanently dish. A saw of this kind will run better with the rim a little warm, which naturally results in inclining the saw to the log, and causes the lumber to be sawed half an inch narrower at the back end than at the front end. Should the saw incline out of the log, the result will be to the opposite. Such a saw should be hammered, but with care.

A new saw that is a little too open may be successfully run. Should the bracing heat, water should be applied, which can be done by putting a short belt on the mandrel, letting the lower part run in a tub of water. The belt will convey cool water to the mandrel and help it wonderfully.

Saws are often run in too close a space. Where there is not sufficient room between track timber and saw frame, slivers and knots lodge against the saw, often ruining it in a few minutes.

All sawyers should have a stop cord attached to the governor, by which the engine can be quickly stopped.



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—BY—

ARTHUR G. MORTIMER

OFFICE.

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J. S. ROBERTSON, - - - EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

THE DUTY PROBLEM.

It is not to be expected that the duty on lumber, more than on any other article of merchandise, can be fixed to the satisfaction of everyone. There will always be an unsatisfied element in the transaction, for at least two interests in all such cases come into conflict.

On the ELI page we give particulars of an interview between representative lumbermen of British Columbia and Hon. Mackenzie Bowell, which tell of discontent in that province, because Douglas Fir, which, it is claimed, is scheduled as pine, is made to pay a duty of \$2 when exported to the United States, whereas white pine lumber pays only \$1. The reply of the minister brings out certain information on this matter which, from the Government side, is supposed to be satisfactory. Yet intelligent as it may seem to them it can hardly be considered satisfactory to the British Columbia lumbermen.

The effort of Mr. Ives, M.P., Sherbrooke, Que., at the last session of the Dominion Parliament to secure a re-imposition of the export duty on logs, is remembered by our readers. Mr. Ives has attempted to solve the problem for himself by building a mill on the other side of the boundary line, and thus escape the duty. On the principle of "every man for himself" this step may be accepted as one way out of the difficulty, but it is not the act of a statesman, and will not solve the problem for others.

The strongest opposition to the free export of logs to the United States, with a tax of \$1 per thousand feet on the manufactured lumber, comes from the saw mill men of the Georgian Bay districts. It is easy to understand that the local press and the people of these northern districts view with alarm the removal of immense quantities of timber from their midst to be manufactured into lumber in a foreign country. They would rather see this work done at home, in their own saw mills and by their own workmen. Who would not? It is not to be supposed that there is a Canadian worthy the name who would, if the choice were given him, hold to

any other view. But is it a matter of choice? Of course our Government could reimpose the log duty. The information, however, has been imparted repeatedly in these columns and elsewhere that to do so simply means, under the conditions expressly stipulated in the McKinley Bill, to invite an immediate increase of the duty on sawn lumber going into the United States to \$2 or more per thousand feet.

It is here the opinion of lumbermen divide. Those who favor a free exportation of logs, with a duty of \$1 per thousand on manufactured lumber, contend, with perhaps as complete knowledge of the lumber field as those who hold an opposite view, and in many cases they themselves are sawmill owners, that a re-imposition of the export duty, and with it an increase in the duty on lumber going into the States, would circumscribe the lumber trade of the country to an extent that would place it almost at a standstill. Clearly, if our mills are to be run with success, a market must be found for the manufactured lumber, and if a duty beyond one dollar would seriously curtail what is now a large and profitable market, no one would suffer more than the mill-owners.

A new force in the agitation for a re-imposition of the export duty on logs are the fishermen of the Georgian Bay. They have joined hands with the lumbermen; not that they are interested, however, in the product of the land. Their interest is with the product of the sea, and they say that if the present system of towing immense rafts of logs continually across the Georgian Bay to the American side of Lake Huron is much longer in vogue the fisheries of these waters will be utterly destroyed. Large rafts covering fifty or sixty acres in extent, when in a heavy sea, such as they frequently encounter, chafe and rub until the logs are stripped of the bark. This, in the course of a short time, is carried shoreward, where it sinks, ruining nets and destroying the feeding and spawning grounds of the fish. The damage which is being done in this way is said by those who should know to be already incalculable; and fishermen generally complain that unless the export duty is re-imposed, and the rafting of immense numbers of logs thus put a stop to, the salmon and white-fish of Georgian Bay will entirely disappear.

It must be admitted that to arrive at a conclusion, equitable as well as practicable, and that will meet these various conflicting interests, wise thought and skilful treatment are necessary. Moderation in statement and a tolerant view are at least two needed elements to a solution.

TWO VIEWS OF THE LOG QUESTION.

THE Globe of the 30th ult. contains the letter of a special correspondent from Saginaw, Mich., who enters somewhat fully into a discussion of the lumber question. After noting the great improvement in the lumber trade in the United States during the season closing, and which it is believed is common to Canada, as well, this writer, says:

Your correspondent has made careful inquiry as to the business of towing rafts from Canada. The trade has this year grown to one of considerable proportions, and probably for the first time equals the export of logs from the United States to Canada on the Rainy River in the west, and on the St. John in the east. The risks of the business are heavy and several large rafts have recently been wrecked, entailing heavy loss upon the owners. Many Michigan lumbermen are considering the advisability of building saw mills in Canada, and are only deterred from so doing by the uncertainty as to the tenure of the present rate of Crown dues, and by the possible re-imposition of the export duty on logs. They conclude that at present no assurance is given that arbitrary and ruinous changes may not be made by the Ottawa Government on the rate of lumber dues imposed, and some assurance as to permanence of rate for a term of years and limitation of advance, when after a lapse of years one is made, would lead to the building of saw mills by Americans on the Canadian side of the line if the uncertainty as to the log export duty was removed. This question is felt to threaten more danger to capital embarked in Canadian saw mills than does the uncertainty of the tenure of Crown dues. Were the export duty reimposed the American duty on pine lumber would, under the provisions of the McKinley Bill, be advanced from \$1 per thousand to \$2, and this is not the worst feature of the case, for it is believed that the United States Government would add the amount of the Canadian export duty on logs to the American duty on lumber as a retaliation, for the reason that the constitution prohibits an export duty, and retaliation in kind could not be reached. If these two difficulties were out of the way, towing logs in rafts from Canada to Michigan could not fail to give place largely to the manufacture of Canadian logs into lumber on the Canadian side of Lake Huron. The advantages in favor of sawing logs in

Canada even now are considerable. Lumber manufactured on the Canadian side of Lake Huron can be sent by water to the eastern or the western markets nearly as cheaply as from Saginaw or other producing points in Michigan where Canadian logs are converted into lumber. The difference in the cost of freight does not in any case exceed 25 cents per thousand, and usually the rate is the same. Sawing can be secured in Saginaw at an average of 25 cents less per thousand than in Canada, owing to the advantage of manufacturing salt in connection with sawing lumber. The advantages, therefore, that the Michigan mill possesses over the Canadian mills are as follows:

Difference in freight on lumber to Buffalo or	
Chicago in favor of Michigan points.....	\$0 25
Difference in saw bill.....	0 25
American duty.....	1 00
Total.....	\$1 50

It may be claimed that the difference in saw bill is greater than stated, but even if this is the case the difference in freight rates seldom exists, and the statement may be accepted as substantially correct. This very material advantage to the Michigan mill is more than counterbalanced by certain disadvantages that cannot be avoided. Logs must be towed from Canada to Michigan, and the business is a hazardous one. When a raft reaches the mouth of the Saginaw River the great bag boom must be broken up and its contents made up into smaller rafts and towed up the river. The disadvantages in towing logs to Michigan for sawing sum up as follows:

Tow bill from Canada to Saginaw River.....	\$1 50
Towing up Saginaw River to mills.....	0 50
Lake towing risk, at least.....	0 50
Total.....	\$2 50

This shows a net advantage at the present moment in favor of sawing in Canada of \$1 per thousand, and nothing but the uncertainties I have mentioned as to tenure of dues and export duty prevents a large movement in the erection of saw mills by American capital in Canada on the waters of Lake Huron. These advantages in favor of Canada will be further increased when lumber is placed on the free list, as it certainly will be in the near future, if bad feeling is not aroused and retaliation provoked by re-imposition of the log export duty and acts of a similar character, all of which are calculated to create bitterness of feeling and prevent tariff concessions and modifications.

This is a view of the case that would appear on first consideration to open a solution to the present tariff troubles. If it can be shown that American lumbermen only wait a greater fixedness of purpose on the part of the Dominion Government regarding the export duty, and a little more certainty touching the tenure of Crown dues, to induce them to build mills in Canada and do their cutting here, our Government would be deserving of severe condemnation if not taking immediate steps to remedy the difficulty; for, clearly, what is asked by lumbermen, whatever view they may take of the tariff, is that the logs cut in our country be sawn into lumber in the sawmills of our country.

Mr. John Waldie, of the Victoria Harbor Lumber Co., however, in reply to the Globe's correspondent, gives another coloring to the situation. He points out that the figures there given showing \$1 per thousand advantage to the Canadian saw mills in the manufacture of lumber are entirely outside of the real conditions, and it is for this reason that the American owners of Canadian timber limits do not have their logs cut in this country. The Michigan mill-owner has all the advantage over the mill-owner on the Georgian Bay of being able to dispose of his slabs, edgings and refuse for an amount equal to the cost of manufacturing the lumber, there being a population in Bay City and Saginaw of at least 50,000, who purchase at good prices all the refuse which may not be used in connection with their salt industry. Then Mr. Waldie disputes the statement made in regard to the water freight of lumber from Canadian points to Buffalo. He points out discrepancies in the charges quoted for towing, and taking, everything together, concludes, in contradistinction to the statements of the Michigan correspondent, that the "Michigan mill-owner has \$2 advantage over the mill-owner in Canada, who has to tow his logs to a railway point. Lumber on the north shore of the Georgian Bay, at Canadian points, will bring \$2 per thousand less on the average than the same lumber piled at Saginaw and Bay City, owing to the advantage these points have for distribution throughout the year, and having a large consuming population for the refuse made by their mills." Were this not the case, Mr. Waldie argues, Michigan men who are owners of mills in this country would not keep them closed and tow their logs to their mills across the line. When the export duty was removed the Dominion Government made the grave mistake, says Mr. Waldie, of not providing that it should take effect when the American tariff was changed making lumber free.



MR. T. BARLOW WALKER, of Minneapolis, is another American lumberman—one of the big lumber kings of the United States—who believes that the forests in his country are fast being depleted of their best timbers, and that American lumbermen will have to look to Canada for limits. This is the way Mr. Walker talked to an interviewer when in our city a fortnight ago. He referred particularly to the Northwest districts of his country, where the new homestead law, reserving the land to the actual settler, is having a discouraging influence upon the lumbermen.

* * * *

“Saw mills in the vicinity of Little Current,” said Mr. Froude, of Wallace Mines, near Little Current, “are very busy and will run until the snow flies. It is true great quantities of logs are being exported from this section by the Howry Bros. and others, but I cannot see that our mills are doing any less work on this account. On the contrary, as I have intimated, there is an increased demand for manufactured lumber. If our logs are going to the American side in large quantities, and undoubtedly this is true, there are increased shipments of sawn lumber finding a market there too.”

* * * *

“Business with us in Bruce county,” said Mr. A. McKuaig, of Lucknow, “has been very good the past season, and we look forward to still better times ahead. Lumber matters are looking up. Our cut is chiefly square timber for the foreign market shipped on account of McArthur Bros. The shipments go to them at Quebec. Whilst it is true that lumber in Great Britain has been slow for a considerable time and the square timber trade has been quiet as a consequence, yet the largely increased shipments from Quebec, shown by the official returns, indicate a greater consumption of lumber across the Atlantic than for a considerable period of the past.”

* * * *

A writer in an American lumber journal throws sentiment to the winds and gets down to very plain business when, in discussing the subject of forestry, he says: “The question is, how under our system of land holdings any effective measures can be taken to preserve forests around the head waters of the great rivers of the country. These forests are mainly in the hands of lumbermen who bought them to manufacture, and, particularly in the white pine country, prices have been paid which are only justified by immediate manufacture and which could not be justified by any forest culture methods. This is a problem that we can venture to say will not be solved within the life of any now living.”

* * * *

Mr. E. C. Grant, manager of the Ottawa Lumber Co., Ottawa, Ont., takes a hopeful and, at the same time, a cautious view of the lumber situation. He says: “There has been a better demand for all grades of lumber this year than there has been for some time. Though the different yards have not such a depleted appearance as they had last fall, still it is not a sign that there are not ready sales, as nearly everything has been sold some time ago, most of which has passed into the hands of the middleman. A number of firms, ours included, have been considerably delayed by not having their logs come forward as soon as we expected through being detained by the jam on the Gatineau, by the Upper Ottawa Boom Co., as well as the mill men, are very much handicapped at present by the scarcity of men, who are leaving for the woods to accept positions at very much advanced wages to what they have been getting for some time. However, on the whole, we think that the outlook for next season tends to be quite as good as this, and we see no reason why the present prices should not remain firm.”

Bay City, Mich., has a lumberman, in Mr. Albert Miller, who has not lost hope in the Saginaw valley as a good centre for a lumber business. If Michigan supplies are nearly exhausted he sees abundant stock across the border on this side of the line. Mr. Miller has suffered heavy losses from fire this year, yet he is ready for business again the first opportunity. He is reported as saying: “I do not know what business I shall engage in, but I believe a new saw mill on the premises burned over would be the proper move to make. I consider the chances of a saw mill better to-day than they were eight years ago. With the forests of Canada open to our doors, and a safe means of bringing logs to our shores, there is no reason why the mills of Saginaw river cannot continue to be as important a factor as ever in the business history of this city.”

* * * *

A few weeks ago I had a chat with Mr. J. A. Spaulding, lumber merchant, Philadelphia, Pa. He was in the country, more on pleasure bent than business, but he was looking around to see what business might be doing. “I deal chiefly in pine,” said Mr. Spaulding, “and this class of timber is becoming scarce enough in important parts of the States to make it necessary to look elsewhere for our stocks, and we have to rest in no small measure on Canada. There is little doubt that in Michigan in particular the supply of timber is nearly exhausted. Those interested may want this statement qualified, but actions speak louder than words, and the proof is in the migration of Michigan lumbermen, so far as seeking supplies is concerned, to Wisconsin, the South, your country and elsewhere where it is believed timber is to be found. What has surprised me as a reader of the CANADA LUMBERMAN is the modesty of your lumbermen in making themselves known to the American trade. Wholesalers like myself are constantly in need of stocks, which I am sure are in your country, but I should suppose that the announcements of men who have lumber for sale, to be found in your columns, represent but a small fraction of the number engaged in the trade in your country; and I suppose they are in business to do business.”

* * * *

There are not many departments of trade more cosmopolitan in their character than lumbering. At one time or another, timber, in some quantities at least, has been found in almost every part of the globe. We look upon America as perhaps the greatest timber country of the world, but the view of most lumbermen is, we believe, broad enough to give them an interest in timber operations wherever they may be carried on, near or far. I admit to having been considerably interested in an account of the great teak forests of Northern Siam, some mention of which is made in another part of this month's LUMBERMAN. Some observations made by an American lumberman, Mr. P. Bergland, of Marinette, Wis., who has recently returned from Sweden, his former home, has awakened my interest in lumbering in another part of the world. I do not know but what his statements of the magnitude of lumber manufacturing in Sweden will perhaps surprise Canadian lumbermen. He says: “The northern portion of Sweden is a vast forest of timber, differing from our white pine and more resembling the Norway of this country, though of a better quality. The style of cutting the trees and delivering the logs to the mill does not differ much from the manner in which it is done in this country. In the mills are principally gang saws, varying from two to twenty saws in a frame. In most of the mills ten to sixteen gangs, and in one of the larger ones forty gangs. Circulars are not used, neither are band saws. There are no trimmers or edgers, as their work is all done by hand. Mills are run both by steam and water, but principally by steam. The lumber is more carefully manufactured than here. It is for foreign markets, Australia, France and other countries, and cut into much different styles of lumber than in this country. It is not estimated into the thousand feet, but by so many pieces of certain lengths and sizes. Different dimensions have different prices. After being sawed in the mills it is cut by hand into several classes required and cut with a great deal of care, giving it a finished appearance. It is kept under cover while piled. The scows upon which it is taken to the vessels for loading have a roof over them

so that the lumber shall not become injured by being wet. There is a great deal of labor placed upon it after it leaves the mill, which adds to its cost and value. The cost of such lumber there is in excess of our lumber here. The wages of ordinary laborers in the mill are 2½ to 4 crowns a day, a crown being 27 cents, making the daily wages 69 cents to \$1 a day. In single districts of 100 miles there are from 200 to 300 saw mills. The government regulates the cutting of all timber, no matter by whom owned, and no trees are allowed to be cut down below a certain size. A selection is made and trees marked by agents of the government designating such trees as must not be cut. In this way the smaller trees are given an opportunity to grow, furnishing good timber for each successive generation. Many of the mills there are constructed entirely of iron, not a stick of timber or wood being connected with them.”

* * * *

The lumbermen of British Columbia took advantage of the recent visit of the Hon. Mackenzie Bowell, Minister of Militia, and ex-Minister of Customs, to that province, to discuss with him the question of the duties on Douglas Fir going into the United States. Where, under the McKinley tariff, white pine is admitted on a duty of \$1 per thousand feet, Douglas Fir is taxed \$2. Mr. R. H. Alexander, of the Hastings mill, who was spokesman for the lumbermen, stated that Douglas Fir was scheduled in the United States tariff as pine, but was classified as other woods, and consequently did not come under the \$1 regulation. The Americans, however, could buy logs here, and he thought the lumber should be put on the same footing as pine from Eastern Canada. Pitch pine and redwood were both admitted into Canada free, while British Columbia fir and cedar were dutiable in the United States. This usurped their home market, as the fir would be largely used in the eastern provinces. A quantity was used for railway car sills, but they had to compete with the pitch pine, and were at considerable disadvantage, as it could be got at a little less. The saw mill interests in this province thought that it was only fair that their products should be admitted free, or that Canada should retaliate. Their cedar wood was met by the redwood, even in Winnipeg. They were not afraid to compete on even terms if they would let the Douglas fir in free into the United States, as it was of better quality, having a closer grain. They would rather meet them fairly, and either have free trade or a duty on both sides. An interchange with Australia would be of the greatest advantage to this province. The colony of Victoria was proposing to impose a duty of 25s. per thousand feet on Oregon pine, and they classified their products as the same. Although it was really Douglas Fir they could not put on a differential tariff.” Mr. Bowell in reply said that the matter, which was a very difficult one to settle, was already under consideration. The Americans had exempted spruce in the list somehow or other, doubtless because it was a great industry in Maine, which was then represented by Mr. Blaine, who showed that he was willing to sacrifice Michigan but not Maine. It was a question whether, considering the lumber botanically, the Douglas Fir is pine or spruce. After investigating the matter, and obtaining the opinion of well-known agriculturalists and botanists, like Prof. Saunders, it was decided that it was not really pine but spruce. If any one looked at the needles they were the same as the eastern spruce. He said he had sent to his son for some needles, and on examination they had come to this decision. He thought the Americans had not ruled it as pine. In reply to an enquiry of Mr. Alexander whether it was not the case that the Northern Pacific railway had taken Oregon pine into Manitoba, while building their line there, and used it in bridges, Mr. Bowell replied by stating that this was not correct, or, if so, they must have smuggled it in. They had had certain concessions, and they had a very long fight on the matter. Pitch pine was admitted free for use in shipbuilding, but since the date of that arrangement Douglas Fir or pine had been used largely, especially in car building. A large number of freight cars, especially the flat ones, were built of this pine, as it was the best and lasted longest. Pitch pine and red wood were originally admitted into the country, because there was none to be obtained.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

MICHIGAN lumbermen have their plans well matured for a busy season in the Canadian woods. Contracts have been let by J. T. Hurst and S. O. Fisher, of Saginaw, to Canadian woodmen to cut and put 50,000,000 feet of logs into the Wahnapiet River, Georgian Bay, on the tracts of timber recently purchased from the McArthur Bros. Albert Pack, of Alpena, who has about 200,000,000 feet of standing timber in the Georgian Bay district, will cut about 15,000,000 feet this winter, to be towed later to his mill at this point. He will take his camp outfit per steamer from this city. Four Alpena lumbermen, Messrs. Pack, Gilchrist, Fletcher and Potter, will have camps in the Georgian Bay this winter cutting logs. The statement is made that not less than 100,000,000 of Canadian logs will reach Alpena this season. The holdings of Alpena lumbermen in Canada are said to be not less than 1,000,000,000 feet. Sibley & Bearinger, of Saginaw, have put in four camps in the Georgian Bay district, and figure on putting in about 25,000,000 feet of logs. The Emery Lumber Co. will have not less than six camps in the same territories. Their Canadian work is in charge of Thomas Pickard.

BOUGHT OUT THEIR PARTNERS.

A change has been made in the composition of the Emery Lumber Co., a concern that for some years has operated largely in Canadian timbers. The members of the Saginaw Lumber and Salt Co., who owned a one-third interest in the Emery Co., have sold their interest to Nelson Holland and Temple Emery, who held the other two-thirds interest. They now become sole owners. They hold about 200,000,000 feet of standing timber in the Georgian Bay district. Nelson Holland has purchased what is known as the old Bearinger mill site at East Tawas, and his mill here will be removed to Tawas at the close of the season. Tawas will be made the base of operations for the Emery Lumber Co., and the supplies for cutting will of course consist of Canadian logs. Tawas is possessed of splendid shipping facilities, and logs are towed there with much greater ease than to Saginaw. On the other hand there is not nearly the same profitable outlet for surplus refuse in Tawas as Saginaw, which will be an extra item of cost. The Saginaw Lumber and Salt Co. are themselves owners of a considerable body of Canadian timbers.

MADE OUT OF WHOLE CLOTH.

As the CANADA LUMBERMAN was closing its forms for September a story was being widely circulated through the press of the United States and Canada stating that the steam yacht Wahpiti, owned by Isaac Bearinger, of Saginaw, a partner in the firm of Sibley & Bearinger, had gone down in a gale near Collingwood, Ont., and the eight persons on board were drowned. It was stated that she had on board Mr. Sibley, wife and family and other friends. The firm of Sibley & Bearinger are known as large operators in Canada and this country, and lumber circles were naturally agitated. It has turned out that the whole story was the concoction of a half-breed cook who had been discharged for drunkenness. The Wahpiti, it is true, had been cruising in the Georgian Bay waters, but only a season of pleasure had been the lot of the party. The yacht, with the entire party, arrived safely home about ten days after the publication of the dispatch.

BITS OF LUMBER.

A number of large rafts of logs from Canada have arrived at our ports this season.

The Tittabawassee Boom Co. has delivered about 144,000,000 feet of logs to the mills this season.

McArthur Bros., of Cheyboygan, have had land lookers prospecting at the head of the Spanish river looking over a 150,000,000 feet limit.

John Welch is cutting 5,000,000 feet of Canadian stock, mostly into dimension, for Gilbert & Hallenbeck, the most of it being sold to Chicago dealers.

Michigan lumbermen, who are preparing to operate in the Canadian woods, allege that provisions, hardware, blankets and camp supplies generally, cost more in Canada than in this State.

The Old Lady is circulating the story that Thomas D. Merrill, of Merrill & Ring, of this place, and who is not unknown to your people through his large holdings of Canadian pine, is shortly to wed the widow of the late Gov. C. M. Crosswell.

Gen. Alger has purchased the half interest of his partners in the Manistique Lumber Co.'s mill, at Manistique, 200,000,000 feet of timber, logging railroad, etc. The consideration was \$6 stumpage for the timber; \$600,000; and \$100,000 for the other property. Gen. Alger is one of our millionaire lumbermen, and his name has more than once been named in connection with the Presidency. His "barrel" would be very useful in a case of the kind.

SAGINAW, Mich. Sept. 23, 1892.

PICA.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

LUMBER affairs will be unusually active in the woods the approaching winter. Large numbers of men are being despatched thence almost daily. Wages are ruling considerably higher than a year ago, and in some respects it is difficult to engage the men required. As high as \$25 per month has been offered for log makers, with few to accept the figure. Contracts are being made by Reneaud Bros. for log cutters at \$1 a day; general handy men, \$16 to \$22 a month; cooks, \$35; hewers, \$40 to \$50; liners, \$30 to \$35; scorers \$30. All these rates include board. Last year log makers rarely got over \$21 a month, and square timbermen not over \$38. There will hardly be less than 5,000 men in the bush this season. The opening up of the Pierce and Co. limits by the Shepard and Morse Lumber Co. is one cause of the present scarcity of labor. This concern has already sent up nearly 300 men to its limits. The season's cut will no doubt be an exceptionally large one.

A NOTE OF WARNING.

We find an illustration of the changes taking place in the timber conditions of the country in the fact that it is impossible to get the same lengths in square timber now as in years gone by. Fire and the axe have got in their work and the woodsman is obliged to make his square timber to-day out of much shorter trees than formerly. The Department of Marine have recognized the changed conditions and have shortened the lengths given in all the specifications for the timber to be used in the Pointe aux Anglais pier construction.

INDIFFERENT LENGTHS.

Bronson and Weston Co. will work with fewer shanties this year than last, but their cut will remain the same.

J. R. Booth has no lack of logs on the river. Large numbers are arriving almost daily, whilst the pond is full and the boom is well stored.

D. Martin, of the Bronson & Weston Co., had his buggy wrecked the other day, the top being caught by a spike projecting from a telegraph pole.

The sailing vessel Ellen A. Reid, now loading at Montreal, Que., is taking 1,500,000 feet to South America for the Shepard & Morse Co. The load is the largest ever taken by a sailing vessel.

Shipping is active. Twenty carloads of lumber left the Chaudiere junction of the Canada Atlantic in one day for Montreal and United States points. Seven barges left for Burlington, Vt.

There is still considerable difficulty experienced in getting timber out of the boom in Deschenes lake. There is no jam, but the logs that are down are immense in number and great delay is arising in sorting them.

Perley & Pattee, who at the close of the sawing season will hand over their mill on the Chaudiere to J. R. Booth, are running night as well as day in order that they may clean up their work before the transfer of the property is formally made. None of the other mills are running a night gang.

The Baldwin sash and door factory in Hull, which has been idle for almost two years, will shortly be reopened and business begun on an extended scale. It is expected a large gang of men will be employed. Mr. Gagnon, recently city inspector of Hull, has returned from the States and will take the management of the business. It is rumored that the E. B. Eddy Co. will shortly give up their manufacture of sash and doors.

Messrs. Gilmour and Hughson have finally decided to rebuild their saw mill at Hull Point, destroyed by fire some years ago. Building will begin shortly, and it is expected the mill will be completed in time to begin operation next spring. It is possible that in the near future the firm will tear down their mills at Chelsea and rebuild them with the new structure at the point. Mr. Hughson is at present on a business trip to the States.

OTTAWA, Sept. 23, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

LUMBERMEN of Oregon, Washington, Tacoma and certain other sections of the Pacific coast are ambitious to form a big combination of all lumbermen shipping by water from Lower California to Alaska, and would like to include the mills of British Columbia. The scheme is something like this: Small mills, numbering something over 100, will receive from \$400 to \$1,000 per year, according to the figure they cut in water shipping. It will cost the "combine," if it goes through, between \$50,000 and \$100,000 per year for subsidies alone. A Mr. Moore, of the lumber firm of Moore and Smith, San Francisco, has been working the scheme, and will, it is said, visit this province. His claim is that such a combination would place the mills of Victoria, Washington and Oregon on an equal footing in foreign markets, thereby profiting these two

states. I am very doubtful if British Columbia lumbermen are likely to go into a scheme of this nature. My impression is that a Victoria paper has sized up the situation about right in saying that this very claim of Mr. Moore's is what is likely to make the scheme fall to the ground. British Columbia mills, owing to the more liberal trade laws of this country, which has no McKinley Bill, have a decided advantage in foreign markets, which they are not likely to surrender, no matter how much it might benefit their brethren to the southward. Australian lumbermen would certainly not relish the change, as they recently, as your readers know, had the duty on lumber raised in retaliation for the McKinley Bill.

A RIVERS' AND STREAMS' CASE.

The Burnaby Lake Lumber Co., Messrs. H. I. Rowling and Co., have closed down their logging camp at Burnaby Lake, and all their men have been paid off and discharged. This action has been taken by the company on account of an injunction obtained by the New Westminster water works commissioners to prevent them floating logs down the Brunette River, as it is claimed their pipes would be damaged by the logs. If the injunction is made absolute the camp will be shut down for good, and thus an important industry will be nipped in the bud. The Burnaby company own about 1,200 acres of timber land, and in order to get this timber to market by water it is necessary to float it down the Brunette River from Burnaby Lake. It is not unlikely that the case may be carried beyond our provincial courts before it is finally settled. Important interests on both sides are involved.

COAST CHIPS.

W. Losee, shingle mill owner, Victoria, has assigned to C. E. Pooley.

The Michigan Lumber company has closed out the balance of its stock of lumber in Victoria to W. Lang.

Mike King, of Reed Island, one of the most extensive loggers in the province, reports the weather unusually wet this summer up the coast, and the loggers have worked fewer days than in any year since 1884.

The Moodyville Lands and Saw Mill Co., Ltd. (foreign), has been registered by Mr. C. J. Leggatt, registrar of joint-stock companies. The capital of the company is £160,000, divided into £5 shares, 28,000 of which are ordinary and 4,000 deferred.

George Mercier, while on a visit to the Royal City logging camp in Surrey, was shown and measured what is said to be the largest log yet taken out in the camp. The first cut above the stump, which was thirty feet in length, measured eight feet and four inches in diameter at the butt, or larger end, and six feet at the smaller end.

Lumber freights are fairly steady. The latest quotations from British Columbia or Puget Sound are as follows: Valparaiso for orders, 40s. nominal; Sydney, 27s. 6d. to 30s.; Melbourne, Adelaide or Port Pirie, 37s. 6d. to 40s.; United Kingdom, calling at Cork for orders, 57s. 6d.; Shanghai, 45s.; and Yokohama, 40s. 6d., nominal.

Mr. David Maclaren, of Ottawa, Ont., one of the principal shareholders in the Maclaren-Ross Lumber Co., is spending a month in this province. He is accompanied by Mr. H. de Pencier, general manager of the company. It is expected, as a result of Mr. Maclaren's visit, that the date of commencing operations at the Westminster and Barnet mills will shortly be fixed.

The William Hamilton Manufacturing Co., of Peterboro, Ont., are supplying all the machinery, engines, boilers, etc., for the double circular saw mill now being erected at Sidney, North Saanich, for the Toronto and British Columbia Lumber Co., of which Messrs. White and Hammill are the principal movers in this province, and Messrs. Davidson, Hatton and Strathy in Toronto. The machinery, etc., will amount to seven carloads and will arrive about November 1. The mill will cut from 75,000 to 100,000 feet per day, and will compete for export trade.

The Vancouver shingle mill, owned by Mr. H. H. Spicer, lays claim to a record breaker in shingle cutting. In ten hours the other day, the grand total of shingles cut was 223,500. The cut was made as follows: Gus Arndt, of a Challoner's double block machine, 125,000 shingles; David Burns, on a Challoner's hand machine, 49,250; John Donohoe, on a Waterloo "Boss" machine, 49,250, thus making up the total of 223,500 shingles. During eleven days of August and September the average cut per day with these three machines was 165,000 shingles. Mr. Louis Arndt is foreman of the mill, and he and the men are justly proud of the record they have made in shingle cutting. The Pacific coast is becoming celebrated for its red cedar shingles. The sale this year, it is estimated, will show an increase of over 200 per cent. over last year. They are being shipped in large quantities to all parts of Canada and the United States.

NEW WESTMINSTER, B.C., Sept. 20, 1892.

THE NEWS.

ONTARIO.

—John Bingham, sr., builder, Toronto, has assigned. Another case of being loaded up with real estate.

—Diphtheria, to a somewhat alarming extent, is prevalent among the mill hands of the Chaudiere, depleting the staffs, more or less, in all the mills.

—The Rathbun Co., of Deseronto, have decided not to close down their sash and door factory at Lowville, N.Y., as had been intended, a new lease of the property being secured.

—Owing to the low water and the difficulty in getting in logs, Messrs. Murray Bros. saw mill, at North Bay, has been closed for the season. The sash and door factory, however, will continue to run as usual.

—Two cribs of timber belonging to Mr. Fraser, of Westmeath, broke loose at the head of the Ottawa slides a week ago, and swept towards the Chaudiere Falls. The cribs were completely smashed, but the timber was collected again below the falls.

—It is estimated that so far this year 1,500,000 logs have come down to and past Ottawa and about 200,000 are yet expected. Most of the logs that come to Ottawa have been sawed. It is said that fully one-third more logs will be taken out this year than last.

—The biggest raft ever towed through the lakes from Canada recently reached Tawas, Mich., in tow of the tugs Sea Gull and Schenck, belonging to James Reid and Sons. The logs were the property of Sibley and Bearinger, of Saginaw, there being over 8,000,000 feet.

—The Blythe mills property, Peterboro, which includes a flour and woolen mill, besides a saw mill, part of the estate of the late George Hilliard, ex-M.P., has passed into the hands of a local syndicate composed of Messrs. James Stevenson, M.P., Mayor Kendry and H. A. Mulhern. The property generally will be improved.

—A gang of drunken shantymen on a C.P.R. train on the way from Montreal to Ottawa made a brutal attack on a brakeman, kicking and pummeling him in a shameful manner. When the train reached Ottawa two of the most violent of the company were arrested. The C.P.R. authorities say they are determined to make an example of those men who attempt to terrorize over their employees.

—Alexander Fraser, Ontario's big exporter, has completed many of the contracts for Canadian waney board and square pine, which he made in the spring through his brokers, Messrs. A. F. and D. Mackay, of Liverpool, and several cargoes have been discharged at various ports in England and Ireland. "Timber," of London, Eng., says: "We understand that the quality of his shipments have been so satisfactory that in some instances further orders have been placed for future delivery."

—A dispatch from Ottawa says that in the Exchequer court Mossom, Boyd & Co., lumber merchants of Bobcaygeon, have entered action against E. S. Smith, collector of slide dues and tolls for the public works department, for \$10,000 damages for alleged illegal seizure of their lumber. They also seek an injunction to restrain the Government from selling the timber. In addition they bring suit against the Government for the same amount. The seizure in question was made upon an allegation that the firm had not paid slide dues of \$2,241 along Fenelon river slides. The petitioners assert that Smith seized lumber already disposed of by private contract and that he issued orders prohibiting the Grand Trunk railway from shipping any of their cut. The effect, they say, has been injurious, completely paralyzing their shipping business and preventing them from filling their contracts.

QUEBEC.

—Bradshaw & Co., of Montreal, Que., have purchased a large part of the stock of the Casselman Lumber Co.

—A correspondent writes to the Quebec Government stating that over 8,000 pieces of birch alone have been shipped to Great Britain this season without any clearances, or even a single stick measured through the supervisor's office, an institution established for that purpose.

—Alexander Fraser and Co., fish merchants, lumber, etc., Quebec, who failed a few weeks ago, show a statement with liabilities of \$196,000, of which \$120,000 is secured. Assets nominally about \$150,000. The firm made an offer of twenty cents on the dollar, fifteen cents to be paid in August, 1893, and five cents in December, 1893, but no settlement was arrived at.

The extensive business heretofore carried on by James Robertson, at Montreal, Toronto, Winnipeg and St. John, N.B., as manufacturer of saws, lead products, barb wire, etc., to be incorporated under the style of "The James Robertson Company," with a capital of \$750,000. An application for

charter has been made, to which the following names are appended: James and Alexander Robertson, of Montreal; James Robertson, Jr., of Winnipeg; John Robertson, of St. John, and Alex. A. McMichael, of Toronto.

NEW BRUNSWICK AND NOVA SCOTIA.

—The shingle mill of O. F. Stacey & Co., is running overtime. A large trade is being done with the United States.

—The season has favored the getting out of logs in New Brunswick. Only about 8,000,000 feet are hung up at the upper St. John, and in the Aroostock the amount remaining would not exceed 5,000,000.

—High water in the Madawaska and some of the small streams in New Brunswick, has been the cause of considerable damage. Burgess mill dam was swept out taking his logs over the Grand Vale. Byram's mill also sustained injuries. The river St. John is not so much affected.

—The troubles of John L. Oliver, builder, Halifax, N.S., who recently assigned, are chiefly due to his accepting contracts at too low a figure, and also to insufficient capital to carry contracts. He started three years ago, and was formerly of St. John, N.B. The liabilities are stated to be \$5,000, and the assets \$4,000.

—The estate of J. C. Northup, of Scotch Village, N.S., general storekeeper and lumber dealer in a small way, is reported to be in bad shape. The assets were covered by the sheriff before the recording of the assignment, and the other creditors will get nothing. Mr. Northup is judged to have lived beyond his means, and to have trusted too freely. A number of people in the place will lose more or less by the failure. He has preferred his brother for anything there may be left over and above the levy mentioned.

BRITISH COLUMBIA.

—The schooner Alice Cook, 732 tons, will load lumber at Hastings mills, for Sydney.

—The barque City of Quebec has gone to sea with a cargo of lumber, valued at \$9,000, for Adelaide.

—Mr. S. M. Wharton, of Spokane, has completed the purchase of a saw mill plant which he means to erect on Slocan Lake without delay. It will be placed on the site originally located by Mr. Morrison, directly opposite New Denver. The capacity of the mill will be 15,000 feet per day. Mr. Wharton claims that his site possesses the only water power in the district.

—The Davies-Sayward Mill and Land Co. (limited liability), has been incorporated with a capital stock of \$300,000 in shares of \$100 each. The company take over the business formerly carried on by Joshua Davies and William P. Sayward, at Pilot Bay, Kootenay Lake. The head office will be in Victoria, and the provisional directors are E. Crow Baker, G. A. McTavish, J. F. Fell and James Hutcheson.

—Mr. John Hendry, president of the B.C.M., T. and T. Co., has returned from London, Eng., where he had been as representative of the Westminster and Vancouver Boards of Trade. Specially interested in lumber he gave considerable attention to this important industry when abroad. He has expressed the opinion that as a result of the congress the industries of this province will in future attract greater attention from the other parts of the empire.

—The Norwegian ship, Morning Light, 1,316 tons, Captain Johansen, has been chartered by the Hastings Mill Co. to load another cargo of lumber, and is now on the way from Honolulu. The American ship, George Skolfield, 1,276 tons, Captain Dunning, which arrived at Vancouver from Yokohama with tea has been chartered by the Hastings Saw Mill Co. to load lumber for Valparaiso at 40s. The Chilean ship, Lake Leman, 1,035 tons, is at Moodyville, loading lumber on owner's account.

FIRES AND CASUALTIES.

FIRES.

Robert Durham's sash and door factory, Durham, Ont., completely destroyed by fire.

A fire, netting a loss of about \$5,500, occurred at H. R. Morse & Co.'s saw mill, on False Creek, B.C., a fortnight ago.

Miller Bros. planing mill, St. John, N.B., and several dwelling houses adjoining were totally destroyed by fire two weeks ago. Miller Bros. loss is heavy, as they had no insurance.

The Michigan Lumber Co.'s planing mill and sash factory at Vancouver, B.C., burned to the ground. The net loss to the owners is \$10,000, and thirty men are thrown out of employment.

On the morning of September 11 a fire, supposed to have been caused by a tramp, broke out in Mr. C. P. Holton's mill yard, Belleville, Ont., destroying upwards of 2,000,000 feet of lumber and a brick house adjoining the mill yard, which was occupied by two of the mill hands, who saved their effects.

Mr. Holton's loss on lumber is \$25,000, insured for \$6,000; on buildings \$1,500, insured for \$1,000.

Lindsay, Ont., was visited with a disastrous fire a fortnight ago, the mills of the Parkin Lumber Co., dry kilns, storage sheds and electric light plant being burned to the ground. About 2,000,000 shingles were burned. Total loss, \$27,500; insured in British American, \$2,000; Phoenix, \$4,000; London, Liverpool and Globe, \$4,000, and Electric plant, \$3,000. The fire is supposed to have originated from a hot box on the shafting.

CASUALTIES.

Wm. Drinkwater, an employe of Seaman & Newman's saw mill, Warton, Ont., sustained a broken leg by a fall of lumber.

Wm. Cook, son of the foreman at Eddy's match factory, Hull, Que., lost a middle finger in feeding matches to the header.

A man named Ash, employed at the Brunette saw mill, B.C., had his hip bone broken through a fall from a pile of lumber.

Wm. Cartwright, clerk in the store of the Muskoka Mills Co., Muskoka Mills, Ont., run his foot against a butt saw nearly cutting it in two.

While engaged in loading lumber on a waggon at the foot of Bay Street, Toronto, William Foster was injured in the leg by a kick from his horse.

An employe, named S. Mosseau, at Conroy's mills, Deschambes, Que., was terribly bruised through his clothes becoming entangled in a belt.

James Wetmore, manager of Alex. Gibson's lumber mill at Blackville, N.B., received severe injuries by having his hands jammed between two deals.

Robert Matchett, employed in Ramsay's saw mill Redbank, N.B., had the tops of his thumbs and three fingers taken off while turning a shingle bolt.

A young man named Robert Park, while assisting in bringing down a drive of logs in the upper Ottawa, fell into the water and went to the bottom.

Two men, names unknown, who were at work on a log jam on Lumsden's sweep, Deux Riviere, Ont., lost their lives by being hurled into the rapids and drowned.

Harry Blair cut four toes off his left foot at McDougall's camp, in Johnson Straits, B.C. He was taken to Nanaimo, and will most likely go to New Westminster hospital.

M. Brennan, formerly a culler for Pearce & Co., Ottawa, Ont., sustained severe injuries on the head in an attempt to jump on to a stick of lumber projecting from a passing cart.

John Ostrander, of Courtland, Ont., who has been working for some time in a saw mill, at Saginaw, Mich., was killed a few weeks ago through being caught in the belt of the fly wheel.

C. S. Row, while driving out of Naylor's lumber yard, Noyan, Que., fell off his load, both wheels of the waggon passing over him. Fortunately he was not seriously injured, though bruised.

Francis H. Brown, an employe of Lennox, Macbeth & Co.'s saw mill, Queen Street, W., Toronto, was struck with a flying belt, receiving a severe scalp wound from which he died shortly afterwards.

James Cunningham, sawyer in C. E. Naylor's saw mill, Essex, Ont., narrowly escaped a serious injury a week ago. His hand came in contact with the side of the long circular saw, the electrical friction drawing him nearly on the saw's edge and burning the hand badly. With presence of mind, however, he drew his hand free, thus saving himself.

A very distressing accident occurred at Jeune Lorette, Que. A man named Martel has a small saw mill, in which he was working up some logs for market. His children were playing near the machinery, when his little daughter was caught in a revolving wheel and her head literally wrenched from her body. The child was a bright little girl of seven years of age.

In a gale on Lake Huron the schooner Nettie Woodward foundered while trying to make Southampton harbor for shelter. Two of her crew were drowned. The rest were with some difficulty rescued by the lighthouse keeper. The names of the two men are N. Matson and Joseph Greathead. The vessel was old, and for a number of years had been in the lumber-carrying trade.

A serious runaway occurred a week ago near the Chaudiere. Three ladies and a gentleman were driving in a buggy when their horse took fright at Booth's mill, upset them out of the vehicle and ran away. It ran against Mr. Plaunt, knocking him down, breaking his shoulder blade and inflicting a frightful gash on his face. The infuriated animal then dashed up the Aylmer road and knocked down another man who attempted to catch it and was not captured until it had ran about four or five miles.

TRADE REVIEW.

Office of CANADA LUMBERMAN, September 30, 1892.

THE GENERAL SURVEY.

CUSTOMS returns for the month of August—the latest issued at this writing—show Canadian exports to be \$13,248,607, an increase of \$3,238,315 over the corresponding period of last year.

If we take the official returns showing the value of lumber imported from the United States into Canada during the fiscal year ending June 30, we find there was a decline from \$2,505,699 to \$1,993,695, as compared with 1891.

Our correspondence and information from almost every leading lumber centre tell of improved conditions. The cut in the woods in our own country the coming winter will be very heavy; and in the States, except where the forests are becoming too depleted to encourage more than ordinary effort, the activity will be almost equally marked.

In Great Britain more than any other country, excepting, it may be, Australia, lumber trade is dull. Local trade in Ontario is fair, with anticipations of an improved trade in country districts as soon as the new grain is marketed.

QUEBEC.

There has been an increase of forty-six per cent. in the sailing, and twenty-six per cent. in the steam tonnage entering at Quebec up to Sept. 2 as compared with last year, and this increase is due in a good measure to the larger exports of lumber and timber from this port.

BRITISH COLUMBIA.

A regular correspondent of the CANADA LUMBERMAN, writing from New Westminster, says that satisfying shipments are being made to the Northwest and are likely to increase when the harvest is all safely stored and the farmers have time to look about them.

UNITED STATES.

From Tonawanda to the Mississippi the complaint

grows that the most needed stocks in dry lumber are everywhere scarce. Our reports from Saginaw go to show that the cut of the mills, and seemingly next winter's cut, is, in a large measure, anticipated by dealers, and orders placed for lumber that has yet to be manufactured.

FOREIGN.

Information that comes to us from Great Britain during the month is not as assuring as had been hoped for earlier in the season. Business in manufacturing centres is dull and the lumber market is influenced thereby and is weakening.

TORONTO, ONT.

TORONTO, September 30, 1892.

Table with columns for CAR OR CARGO LOTS and YARD QUOTATIONS, listing various lumber types and prices.

OTTAWA, ONT.

OTTAWA, September 30, 1892.

Table listing lumber prices in Ottawa, including pine, spruce, and lath.

MONTREAL, QUE.

MONTREAL, September 30, 1892.

Table listing lumber prices in Montreal, including pine, oak, and spruce.

BOSTON, MASS.

BOSTON, Mass., Sept. 30.—Several outside conditions are aiding to a more helpful condition in the lumber trade of the Hub.

Table with columns for EASTERN PINE—CARGO OR CAR LOAD and WESTERN PINE—BY CAR LOAD, listing various lumber types and prices.

OSWEGO, N.Y.

OSWEGO, N.Y., Sept. 30.—There is nothing remarkable to be noted of lumber conditions at this point. A steady trade and firm prices might be made to embrace the situation.

Table with columns for WHITE PINE and SHINGLES, listing various lumber types and prices.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Sept. 30.—One cannot with much cause complain of the volume of trade being done. Things are not rushing, but a steady business is doing.

Table with columns for WHITE PINE and SHINGLES, listing various lumber types and prices.

Table with lumber specifications: 1x10 and 12 in. (No 3 out), 1x6 and 8 in. (No. 3 out), 1x13 and wider. Includes LATH and No. 1.

COMING SALES.

A saw mill and timber at Parry Sound is offered for sale by Wm. Beatty, Parry Sound.

An advertisement in this month's LUMBERMAN tells of a valuable shingle mill, near Bracebridge, Ont., that is for sale.

At the Mart, King St., Toronto, on October 19, a valuable timber limit on French River, part of the estate of the late John Brown, will be sold.

An important sale of timber berths of the Ontario Government will take place at the Department of Crown Lands, Parliament Buildings, Toronto, on 13th inst.

The sale of the Mossom Boyd & Co. saw mill and lumbering plant, located at Bobcaygeon and district, is named for November 23. Sale will take place in Toronto.

The valuable mill property of the Toronto and Midland Manufacturing Co., at the town of Midland, Ont., is offered for sale by tender up to the 15th inst. This property is very conveniently located for the shipping of its product either by rail or water. Particulars are to be obtained from an advertisement in these columns.

TRADE NOTES.

The Cant Bros. Co., Galt, Ont., have patented their solid web wood split pulley, which is spoken of very highly, as will be seen from a letter published in their advertisement. It is claimed for it that it is lighter than an iron one, thus saving weight on shaft and reducing friction; that it raises less wind and dust than the usual arm pulley; that it is less liable to get out of balance than one fastened with kegs and set screws, and that consequently the cost of running is less.

One of the useful inventions of the present day is mineral wool, used for pipe and boiler covering, and wherever it is desired to prevent the radiation of heat, for deafening in floors, for filling partitions, for lining roofs, and for all purposes where protection from heat and cold are desirable. It is in use in Toronto in such places as E. & C. Gurney Co.'s iron works, Polson Iron Works, and other large manufacturers. The Canadian Mineral Wool Co., Toronto, who control this patent, have an advertisement elsewhere in the LUMBERMAN.

We are pleased to notice in a recent exchange that a Watrous heavy band mill worked for the last two months by Messrs. Conroy in their mills at Deschenes Mills, Que., has given excellent satisfaction. The purchasers report: "We are more than pleased with the mill, it runs as true and steady as could be desired, cuts perfect lumber and does it rapidly, we having cut from unpicked logs 27,300 feet in five hours. The average daily cut is 45,000 feet, as the water power which drives it is light." With steam feed and abundant power this mill will cut 100,000 feet of pine lumber per day. It makes fifteen per cent. more lumber from the same logs than the circular saw, a point we should think lumbermen would not be slow to note. Write Watrous Engine Works Co., Brantford, for further particulars.

In a day when the temptation in advertising is often towards gross exaggeration, the advertiser who is able to make a strong statement, and at the same time speak absolutely by the book, has scored an important point. This would seem to be the position of the Magnolia Anti-Friction Metal Co. They claim that Magnolia Metal is the best metal that has ever been devised for high speed, and heavy engine, sawmill, and every class of mechanical bearings, and as a logical confirmation of this statement, they point to the enormous trade in this commodity since it was first put on the market in 1886. The record shows that the sales for the year 1891 were about 22 1/2 times as great as the combined sales for 1886 and 1887; and the sales for 1892, from present indications, will exceed thirty times the business done during years 1886 and 1887. Magnolia ought under these circumstances to be deserving of a trial.

The Metallic Roofing Co., of Toronto, were very prominent exhibitors at the recent Industrial Exhibition. Their Eastlake metal shingles were everywhere, and wherever they were they were on top of the Natural History Building, the gate entrances, Floral Hall, Press Bureau, ladies' retiring parlors, Grand Stand, new Dog House, about all the beautiful kiosks—everywhere. Wherever it was thought they would do the most good there they were, and certainly they did an immense amount of good during the fearful rainstorm on the 13th ult., in sheltering the immense crowds from being drenched. These shingles are in great demand for covering all sorts of buildings, particularly mills, factories, warehouses, depots, foundries, workshops, farm buildings—in fact, for covering any sort of a building that requires a good, weather proof roof. An advertisement of this concern will be found in our advertising columns and they will send particulars to any one writing them.

Terra cotta for fire-proofing does not appear to be as extensively used in England as has been the case here, observes Architecture and Building. We note that special mention is made of an experiment made last month at Bishop's, Waltham,

plants. The experiment was made in a little building of the dimensions of one room of an ordinary house, with brick sides and a terra cotta floor above, the pieces being so dovetailed as to render it almost hermetically sealed. The floor was reached by means of a wide staircase, with an ornamental balustrade, resembling that of carved oak. In the room below faggots of wood were piled up to the ceiling. Round these at the bottom were placed tar barrels, with a layer of straw. The mass was set on fire and the fire burnt with great intensity. While this was going on most of the visitors ascended the staircase and stood on the floor, feeling the slabs from time to time to see if the heat was making any impression on them, but throughout the whole trial they maintained almost the same temperature, being quite cold. By-and-by the fierce flames wrapped themselves round the staircase, cutting off retreat by that way, and had it been constructed of wood short work would have been made of it. However, beyond being slightly blackened with smoke, it remained as impassive as the floor above. The room was one mass of white heat, resembling in color molten lead. Had the floor fallen in at that time cremation would have been the fate of those on it. The party remained on the roof from half to three-quarters of an hour—a sufficient period to put the experiment to the severest test—and so little had they felt the heat below that many shivered with cold. Immediately the visitors descended, a large number of the workmen and boys ran up the stairs and jumped about on the floor, which apparently had not in any way been affected by the great heat, though the fire continued to burn for a considerable time afterward. The Rathbun Co., of Deseronto, Ont., are manufacturers of terra cotta fire-proofing in Canada.

PERSONAL.

Jay Gould is half owner of a sawmill in Louisiana, near the town of Alexandria.

F. W. Hore, of the manufacturing establishment of F. W. Hore & Sons, Hamilton, Ont., who died recently at Bullock's Corners, was for some years engaged in the sawmill business at Crooks' Hollow, Lynden and Greenville. He was born in 1821, and was a member of the West Flamboro council for fifteen years, and resigned to remove to Hamilton.

Mr. John McLean, well known in lumber circles in Ottawa, has taken to himself a wife in the person of Miss Nora Seymour, of the Capital. The marriage was celebrated in St. Patrick's church, the Rev. Father Foley officiating. The presents to the bride were many; Mr. McLean was presented with a well filled purse by his many friends in the lumber business.

Douglas Fir, which is found in large quantities in British Columbia, is said to have been named after its finder, David Douglas, a botanic discoverer, at one time in the service of the Horticultural Society, of London, Eng. He was an untiring explorer, and ultimately lost his life in a pitfall made for trapping wild cattle, being gored to death by one of these savage animals, which was in the pit.

Lord Jersey, in his recent tour through the wilds of New South Wales, accidentally discovered a relative in the person of Mr. Broadhead, the owner of a property near Kiandra, to which the party was attracted by a pretty little old-fashioned sawmill worked by a primitive water-wheel. The proprietor is a grandson of the late Sir Robert Peel. Lady Jersey commemorated the occasion by christening the neighboring mountain (which is one of the highest in the snowy range) as Mount Jersey.

The death took place recently in Embro, Ont., of Mrs. Gunn, relict of the late Alexander Gunn, at the age of seventy-seven years. Mrs. Gunn came to the neighborhood of Embro with her husband in 1831. She afterwards moved to Burford, where Mr. Gunn became manager of a saw mill. These were stirring times in Canada, and Mrs. Gunn had many strange tales to tell of the rebellion. Her door was never locked at night, and many men and women in good position in western Ontario found shelter in those days under her hospitable roof.

THEIR NEW HOME.

The Gutta Percha & Rubber Manufacturing Co., of Toronto, have recently removed into new premises at 59 and 61 Front Street, W. The commercial concerns of the Queen City can make claim to many handsome and perfectly equipped warehouses; few there are that will excel in any particular the new home of this well-known rubber house.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

ALBANY, N. Y.

ALBANY, N. Y., Sept. 30.—Sufficient activity to make trade encouraging is a feature of the lumber market at this point. Prices are no doubt on the advance. Tona-wanda has already moved in this direction, and practically prices are on the rise here. Stocks in the yards are scarce and it seems perfectly certain that the volume to be carried over the winter, after the close of navigation, which is drawing near, will be lighter than usual. These conditions do not encourage a holding-off policy on the part of buyers.

Table with lumber specifications: 2 1/2 in. and up, good, Fours, Selects, Pickings, 1 1/2 to 2 in. good, 1 in. good, 1 in. pickings, Bracket plank, Shelving boards, Dressing boards, narrow.

Table with lumber specifications: Pine, Spruce, Shingles, Bound butts, Hemlock, Spruce.

SAGINAW, MICH.

SAGINAW, Mich., Sept. 30.—Whatever may be the reports from other lumber centres business here is in a most healthy condition. Plainly stated a big business is doing. Only through want of stocks is trade handicapped in any way. Orders are liberal, and much stock is contracted for before it leaves the saw, and a considerable quantity in anticipation. The season will close with remarkably small stocks on hand. We may expect that for another season lumber will be bought while in condition of standing timber. Record is made of a sale of 12,000,000 feet, log run by Sibley & Beringer to the Robinson Bros. Lumber Co. at a figure about \$150,000.

Table with lumber specifications: Uppers, Selects, 1 1/2 and 1 1/2, Clear, Select, SIDING, C, No. 1, No. 2.

Table with lumber specifications: TIMBER, JOIST AND SCANTLING, 2x4 to 10x10, 12, 14 and 16 ft.

Table with lumber specifications: SHINGLES, XXX 18 in. Climax, XXX Saginaw, XX Climax, 18 in. 4 in. c. b.

Table with lumber specifications: LATH, Lath, No 1, white pine, Lath, No. 2, W. pine, Norway.

NEW YORK CITY.

NEW YORK, Sept. 30.—Trade is by no means lively for this season of the year, and comes a good deal short of expectations. Distribution of lumber is only fair, and dealers are not hopeful of any immediate improvement. The cholera scare has had the effect of making dealers fight shy of the metropolitan market. White pine, more perhaps than any other class of lumber, is holding firm, and good lumber is still scarce. Eastern spruce is not taking the backward position that was anticipated a while ago. The demand is not large, yet it is steady and prices are fairly firm.

Table with lumber specifications: WHITE PINE—WESTERN GRADES, Uppers, Selects, Fine com., C, T, No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, No. 11, No. 12, No. 13, No. 14, No. 15, No. 16, No. 17, No. 18, No. 19, No. 20.

NEWS AND NOTES.

It is estimated that before completion the Manchester ship canal will have cost \$70,000,000, nearly double the original estimate. All hope of its ever paying any dividend is well nigh abandoned.

A riverman named Joseph Deroches, who hails from the vicinity of Three Rivers, Que., met with an accident lately. While on the way to the Union depot he was pitched from the seat of the express; his head struck the ground and a wound three inches long was inflicted on the back of the scalp.

Frederic Lavigne, a shantyman from the vicinity of Montebello, was the victim of an accident at Ottawa. He was in an hotel yard in Lower Town, and while wrestling with another bushman he was accidentally thrown into a cellar opening. He sustained a dislocation of the right shoulder and was cut on the right temple.

The Austro-Hungarian consul at Patros, Greece, says that that city has four steam saw mills for cutting blocks of wood into boards, from which packing cases for currants are made; a branch of industry which has developed rapidly within the last six years. The boards for such cases were formerly obtained from Austria-Hungary.

"Walnut lumber as a commercial quantity in the lumber trade is almost a thing of the past," said a prominent local dealer to a reporter of the St. Louis Republic. "It is not because of any real scarcity in the supply of timber from which walnut lumber may be made, but from the fact that the craze for walnut furniture has died out entirely or nearly so. Oak, ash and maple have taken its place, principally oak."

Ottawa Free Press: Large quantities of square timber have reached the Chats Rapids and are coming slowly but surely over the slides. The timber will probably pass the Ottawa slides this fall, though, if the demand at Quebec becomes less, it will be wintered at Deschenes. It is a noticeable fact that the extension of the field of lumbering is gradually necessitating the extension of the Ottawa river works. When the slides here and at other places were constructed the bulk of the square timber came from the near vicinity of the Ottawa and passed over the slides with the flush of water about the middle of June. The greatest height of water is in June, but the square timber is being made now at the head waters of the tributaries of the Ottawa, at Temiscamingue and on the Pettewawa. This timber cannot reach here till the end of July or middle of August at the earliest, or even, as this year, as late as the end of September. By these dates the water is lowered very greatly, and difficulty is experienced in passing the cribs over the slides. This year it is stated this has been specially experienced, the cribs having in many cases to be pulled over the slides at Portage and Mountain with pike-poles. Fortunately at the present time the water gives some signs of rising, and should those cribs now on the road come down, they will, with little extra labor, be able to pass right through. It is expected, however, that the slides throughout the river will require deepening to render them as useful as they formerly were for the passage of cribs.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

TRAVELLER AND SALESMAN FOR NEW York and New England.—Wanted, a young man who has a good knowledge of lumber, chiefly white pine and hardwood, to solicit orders largely in the car trade. Apply with references and stating salary expected, to "Canada," office of this paper.

WANTED—BASSWOOD, MILL RUN, ONE inch, bright color. TAYLOR, SCOTT & CO., Toronto.

INSURANCE—FIRE AND MARINE. MILLS, manufactures and merchandise a specialty. Telephone at my expense. R. CUNNINGHAM, Guelph.

FOR SALE

AT KINGSTON FOUNDRY & MACHINERY Co. (Limited), two Sawmill Engines, cylinders 13 x 21, fly-wheel 9 ft. 6 in. drain, driving pulley 7 ft. x 18 in. face—new—at a bargain.

WHITE BIRCH AND SOFT ELM WANTED.

LUMBERMEN HAVING 1-IN. RED BIRCH and 1-in. dry Soft Elm, firsts and seconds, for sale, please communicate with W. W. BROWN, 202 Main Street, Buffalo, N.Y.

STEEL RAILS, ETC.

SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways. 20 pair wheels and axles, all in good second-hand condition, very cheap.

JOHN J. GARTSHORE,

49 Front Street West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with

I. C. L., care CANADA LUMBERMAN, Toronto.

Timber Limits

THOSE WISHING TO BUY OR SELL Canadian Pine or Spruce Timber Limits will please send particulars to

LEONARD G. LITTLE, Room 13, Temple Building, Montreal.

CANADA PINE FOR SALE.

FOUR WELL-WATERED BERTHS; VIRGIN timber; all within eighteen miles of the Georgian Bay. Apply

BOX "X," CANADA LUMBERMAN.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-quarter and one-and-a-half inch, strictly firsts and seconds, must be of uniform color; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Can also use Soft Elm Logs 20 in. and over in diameter for export; Red Birch Lumber, I and II., all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long, good squares.

Address all particulars as to dryness, quality, quantity on hand and price, to P. O. Box 2144, New York, N.Y.

To Lumbermen, Mill Owners AND OTHERS

LIQUIDATOR'S SALE OF VALUABLE MILL SITE

SEALED TENDERS WILL BE RECEIVED up to the 15th day of October, 1892, addressed to John McGregor, Liquidator of the Toronto and Midland Manufacturing Company, Room 9, 9½ Adelaide street east, Toronto, for the purchase of that valuable leasehold property known as the Planing Mill of the Toronto and Midland Manufacturing Company, at the Town of Midland, in the County of Simcoe, including Mill Site, Water Privileges, Mill and Fixtures. The highest or any tender not necessarily accepted. For further particulars and terms and conditions of sale apply to the Liquidator, or to

MACDONELL & SCOTT, 9½ Adelaide street east, Toronto, Solicitors for Liquidator.

MACHINERY

FOLLOWING LIST OF SECOND-HAND MACHINERY for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

- ONE 25-H.P. WATEROUS FIRE-BOX PORTABLE boiler on skids.
- ONE 8-H.P. FIRE-BOX BOILER.
- ONE 6-H.P. FIRE-BOX BOILER.
- ONE 4-H.P. UPRIGHT MARINE BOILER.
- ONE 12 x 16 SLIDE-VALVE BECKETT MAKE engine.
- ONE 9 x 12 SLIDE-VALVE MORRISON MAKE engine.
- ONE 6½ x 9 SLIDE-VALVE COPP BROS. make engine.
- ONE 5½ x 9 SLIDE-VALVE BECKETT MAKE engine.
- ONE 25-H.P. WATEROUS MAKE UPRIGHT engine.
- ONE 6-H.P. COPP BROS. MAKE UPRIGHT engine.
- ONE AMERICAN MAKE PLANER AND matcher in good order.
- TWO 34-INCH WHEELS BAND SAWING machines.
- ONE THREE-SIDE MOULDER, GOLDIE & McCulloch make.
- ONE ONE-SIDE MOULDER IN GOOD ORDER.
- ONE BLIND SLAT TENONER
- TWO UPRIGHT SWING SHINGLE MACHINES with jointer.
- ONE WATEROUS SELF-ACTING SHINGLE mill and jointer.
- ONE WATEROUS LATH MACHINE, THREE saws.
- ONE GOLDIE & McCULLOCH MAKE double cope tenoning machine, used eighteen months only.
- TWO PONY PLANERS, 24-IN., WITH COUNTERSHAFTS, Cant-Gourlay's make, Galt.
- ONE SWING CUT-OFF SAW.
- ONE WOOD FRAME TENONER WITHOUT copes.
- ONE WOOD FRAME SHAPER.

TIMBER BERTH

At Public Sale

BERTH NO. 35, CONTAINING 36 SQUARE miles, situated on French River, within about twelve miles of Georgian Bay. There is a large creek and a number of smaller streams crossing the same which empty into the French. It contains large quantities of pine timber and has never been lumbered on. Sale to take place on Wednesday, October 10th, 1892, at 2.30 p.m., at the Mart, King St., Toronto, Canada.

EXECUTORS OF JOHN BROWN (deceased) Easton, Pa.

AUCTION SALE

TIMBER LIMITS

SAW MILL AND LUMBERING PLANT, ETC.

THE UNDERSIGNED ARE INSTRUCTED by Messrs. Mossom Boyd & Co. (dissolved by the death of a partner) to offer for sale by auction, at The Mart, King Street East, Toronto, Canada, on

Wednesday, the Twenty-third day of November, 1892

commencing at twelve o'clock, noon, all their valuable white pine timber berths comprising sixty-eight square miles of virgin timber lands at west end of Lake Nipissing, tributary to Georgian Bay, and timber berths in the townships of Sherbourne, Snowdon, Glamorgan, Monmouth and Harvey, tributary to Trent River and Bay of Quinte.

Also their Sawmill at Bobcaygeon, lumbering plant, etc., etc.

For particulars apply to MOSSOM BOYD, Bobcaygeon, Ontario, or to

MESSRS. WICKHAM, THOMPSON & FITZGERALD, Canada Life Building, Toronto, Ont., Vendors' Solicitors.

G. W. BURNS, SR. LAND LOOKER AND TIMBER VALUATOR

Limits looked after at Reasonable Rates . . .

SOUTH RIVER, ONT.

A SAW MILL

AND TIMBER

For Sale at Parry Sound

THE MILL IS SITUATED ON THE WATERS of Parry Sound and has good shipping facilities. The largest vessels on the lakes can load at the docks. The mill will cut about twenty thousand feet of lumber in ten hours, and twenty-five thousand shingles.

There are about five thousand acres of timber, pine, birch, hemlock, ash, spruce, basswood, etc. Some of the lots have pine and some the other timber, but all the lands are well timbered.

The Parry Sound Colonization Railway is now in process of construction to this point.

Apply to WM. BEATTY, Parry Sound.



AUCTION SALE

OF

Timber Berths

DEPARTMENT OF CROWN LANDS

(WOODS AND FORESTS BRANCH)

TORONTO, 27th June, 1892.

NOTICE IS HEREBY GIVEN THAT, UNDER Order in Council, Timber Berths as hereunder in the Nipissing, Algoma, Thunder Bay and Rainy River districts, viz.: in Biggar, Butt, Finlayson, Hunter, McCraney, McLaughlin, Paxton, Peck, and the northerly portion of Berth Forty-nine, lying South and West of the Wahnapitae Lake, all in the Nipissing district; the townships of Lumsden and Morgan, and a small portion of territory lying North and West of Pogomasing Lake, in the Algoma district; Berths One and Seven, Thunder Bay district; and Eleven, Twenty-seven, Thirty-six, Thirty-seven, Sixty-four, Sixty-five, Sixty-six, Sixty-seven, Sixty-eight and Sixty-nine, Rainy River district. Will be sold at Public Auction on Thursday, the Thirteenth day of October next, at One o'clock p.m., at the Department of Crown Lands, Toronto.

ARTHUR S. HARDY, Commissioner.

NOTE.—Particulars as to locality and description of limits, area, etc., and terms and conditions of sale, will be furnished on application personally or by letter to the Department of Crown Lands.

NO UNAUTHORIZED ADVERTISEMENT OF THE ABOVE WILL BE PAID FOR.

SHINGLE MILL

FOR SALE

SITUATION:

The Tretheway Falls Shingle Mill is new, built 1891, on the South Branch of the Muskoka River, 5 miles from Bracebridge, near South Falls switch N. & N.W. R.R. With the mill are 5 acres of land, large boarding house, team horses, wagon, sleighs, etc., etc., in fact complete equipment for mill and lumber camp.

MACHINERY:

Consists of Little Giant Lefel Wheel (60 horse power), Boss Shingle Machine, Jointer, Splitter, Drag, Butting and Knot Saws; Endless Chain Burner, Bull Wheel, etc., etc. Building is 30 x 40 heavy frame, with room and shafting placed for second shingle machine. Belting complete and everything in good running order. Circular saw could be added with small expense.

TIMBER:

Is abundant for 50 miles above the mill on the waters of the South Branch—many townships being yet owned by the government—besides thousands of acres of deeded pine, four or five thousand acres of which can be bought immediately. There is also about 400,000 feet of timber at mill which can be purchased with it, so that buyer can commence cutting at once.

The estate must be wound up, and will bear the closest examination. For further information, address

THE CANADA LUMBERMAN, Toronto, Ont.

A Good Independent CONDENSER

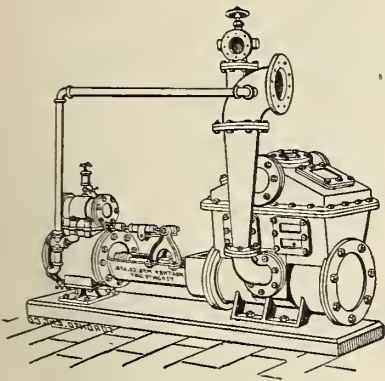
IS A PROFITABLE INVESTMENT
IF YOU ARE WORKING YOUR
ENGINE HIGH PRESSURE

DON'T DELAY, BUT WRITE US PROMPTLY

NORTHEY MFG. CO., Ltd.

MANUFACTURERS . . .

TORONTO, ONT.



OUR INDEPENDENT
CONDENSER

Representative Lumber Manufacturers and Dealers

Town	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Waubushene, Ont.	Waubushene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	Pine only	Waubushene mill, stm., 200m; Pt. Severn mill, water, 120m
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickie	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar	
Blind River, Ont.	Blind River	Blind River Lumber Co.	Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 16m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Wholesale and Retail	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Shingles, Wholesale	
Byng Inlet, Ont.	Utterson	Georgian Bay Consol. Lumber Co.	Lumber, Wholesale and Retail	
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Sawmill, Pine, Hemlock, Birch	Steam, Circular, 20m
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	Lumber, Wholesale and Retail	
Collins Inlet, Ont.	Collins Inlet	Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Comber, Ont.	Comber	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Glamis, Ont.	Pinkerton	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Hamilton, Ont.	Hamilton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Huntsville, Ont.	Huntsville	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Hamilton, Ont.	Huntsville and Katrine	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Keewatin, Ont.	Keewatin	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Lakefield, Ont.	Lakefield	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Little Current, Ont.	Sudbury	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
London, Ont.	London	Howry, J. W. & Sons	Lumber, Wholesale and Retail	
Longford Mills, Ont.	Longford	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	
Mount Forest, Ont.	Mount Forest	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Norman, Ont.	Norman	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 4m
Louise, Ont.	Elmwood, G.T.R.	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	
Toronto, Ont.	Toronto	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m.
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakay, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdws., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Gilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

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We have the most complete establishment in Canada, and by our different processes are enabled to make cuts for every and all purposes.

HALF-TONE CUTS made direct from photos our speciality.

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TEL. 2158

... THE ... FLINT & PERE MARQUETTE RAILROAD

FROM

Port Huron and Detroit

Is the Short Line to

SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)

MT. PLEASANT, CLARE, REED CITY

BALDWIN, LUDINGTON, MANISTEE

AND

MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from

NEW YORK BUFFALO MONTREAL TORONTO

to ST. PAUL, DULUTH and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and a great deal of information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., General Manager. W. F. POTTER, Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

GENERAL OFFICES: - SAGINAW, MICH.

C.A. LARKIN

WRITE FOR 93, 95, 97, NIAGARA WHOLESALE TORONTO, GATALOGUE, ST. M'FR (AN), DISCOUNTS

DOORS & GLAZED WINDOWS

NORTH SHORE NAVIGATION CO.

ROYAL MAIL LINE

To Sault Ste. Marie and Georgian Bay Ports

STRS. CITY OF MIDLAND, CITY OF LONDON, FAVORITE AND MANITOU

Running in connection with the G.T.R. and C.P.R., will sail as follows:-

The CITY OF MIDLAND and CITY OF LONDON will leave Collingwood every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same days at 10.30 p.m. after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and calling at intermediate ports to Sault Ste. Marie.

Steamer FAVORITE will leave Collingwood Mondays and Thursdays after arrival of morning trains for Parry Sound, Byng Inlet, French River and Killarney, connecting there with above line of steamers for the "Soo." Returning will make close connection at Midland on Wednesdays and Saturdays with trains for the south and steamer MANITOU for Parry Sound.

Steamer MANITOU will make regular trips from Penetanguishene, connecting with trains from the south, only at Midland on Monday, Wednesday, Thursday and Saturday for Parry Sound, connecting there with Steamer FAVORITE for Byng Inlet, French River and Killarney, where connection is made with above "Soo" line of steamers.

For tickets and further information apply to any agents G.T.R. or C.P.R., or to

C. E. STEPHENS, Sec.-Treas., Collingwood. W. J. SHEPPARD, Manager, Waubausene

A GREAT LOSS!

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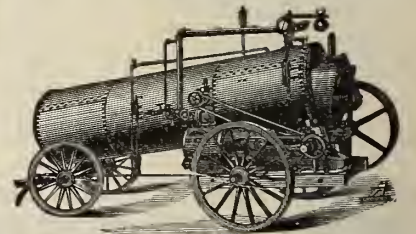
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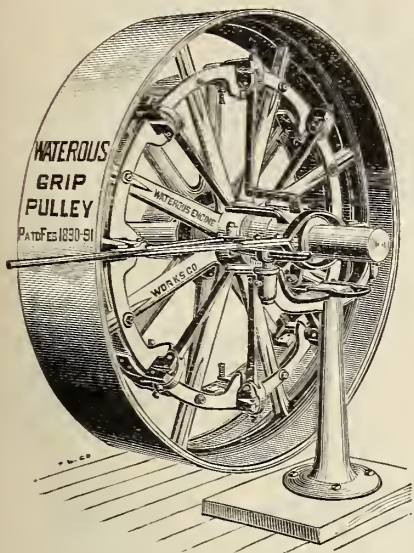
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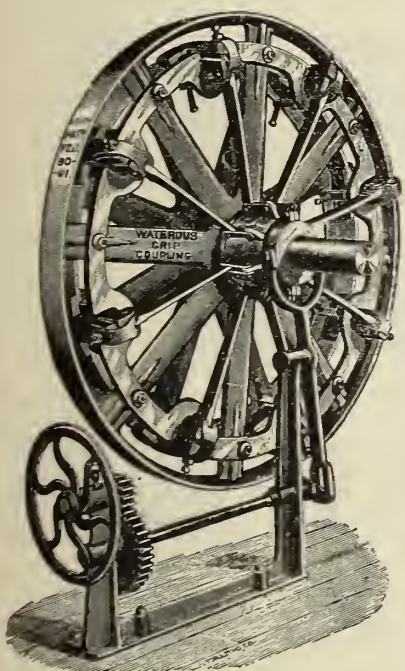
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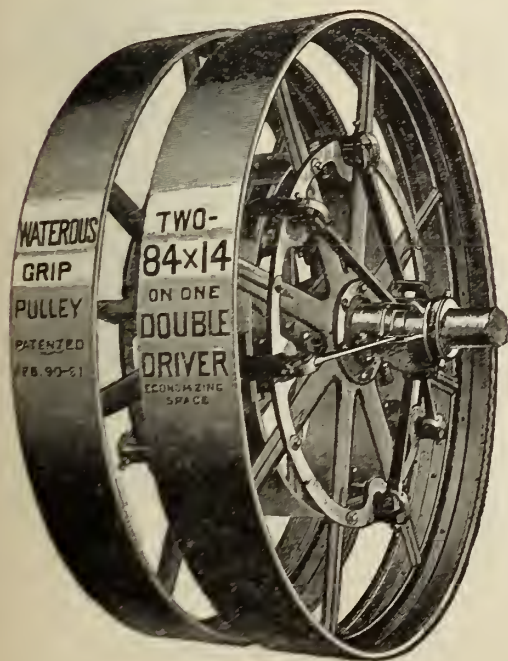
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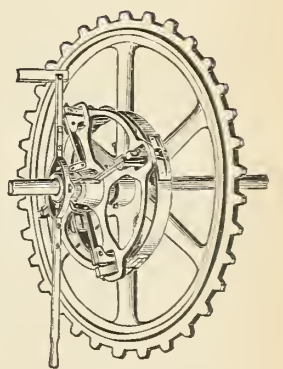
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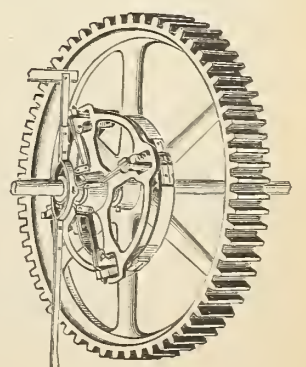
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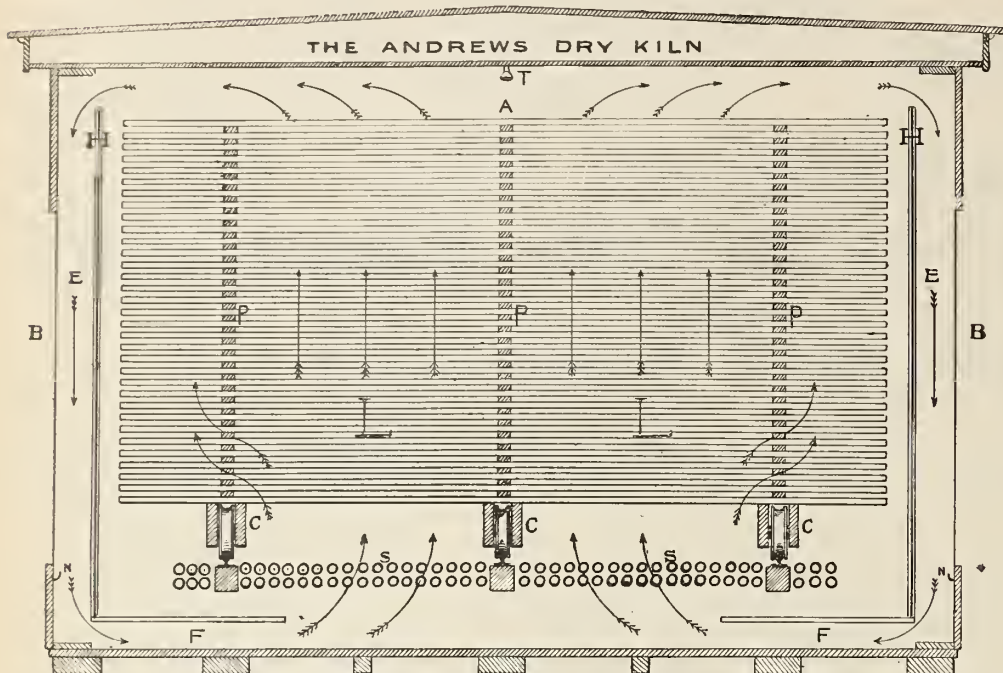
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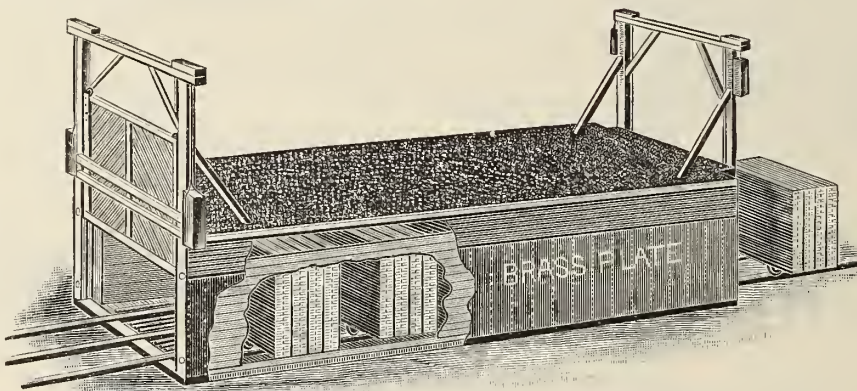
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Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

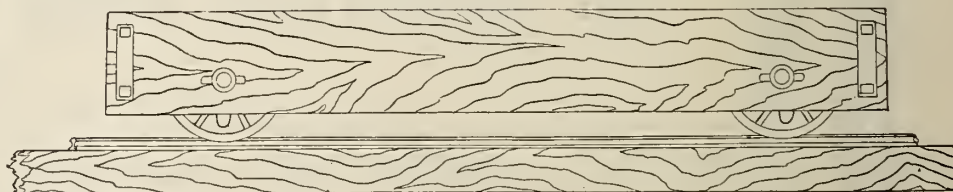
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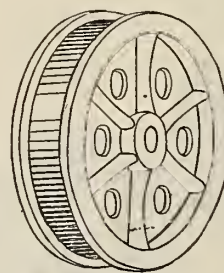
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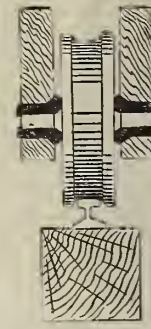
SIDE VIEW OF CAR AND TRACK.



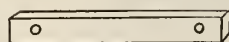
DOUBLE FLANGE WHEEL ON SINGLE TRACK



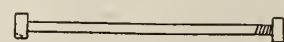
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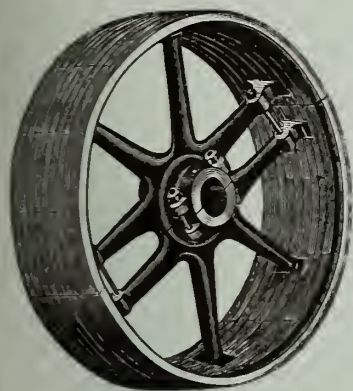
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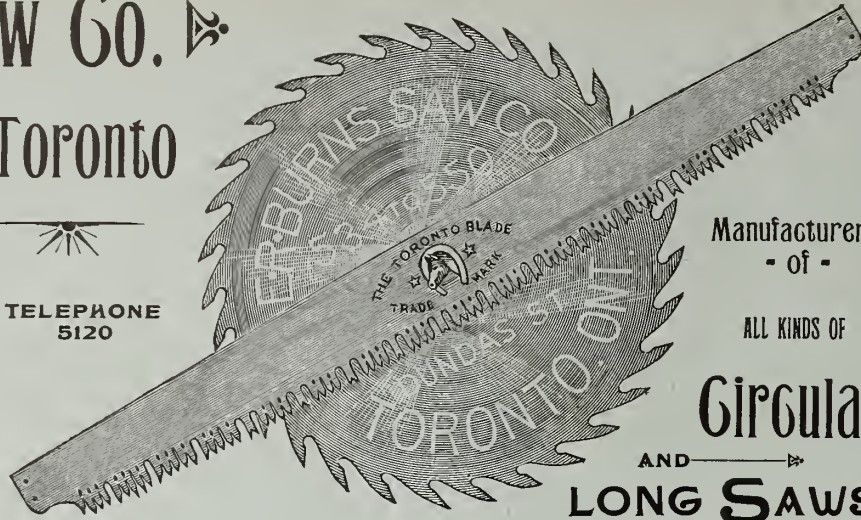
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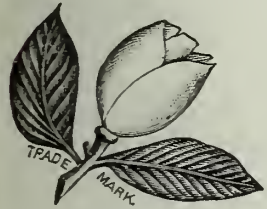
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VOLUME XIII. }
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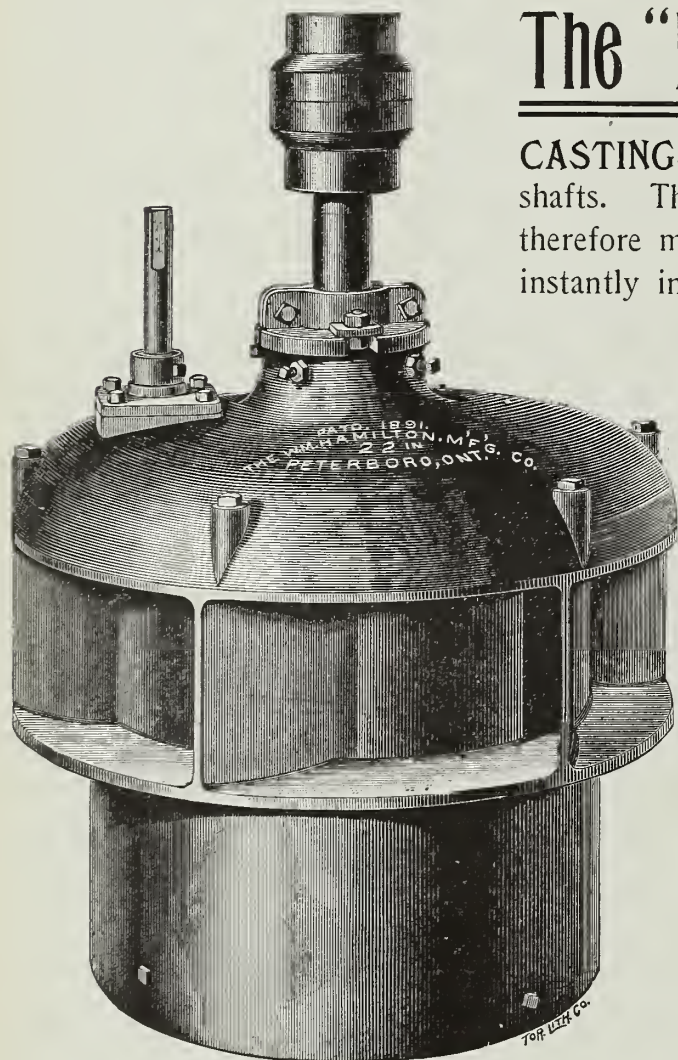
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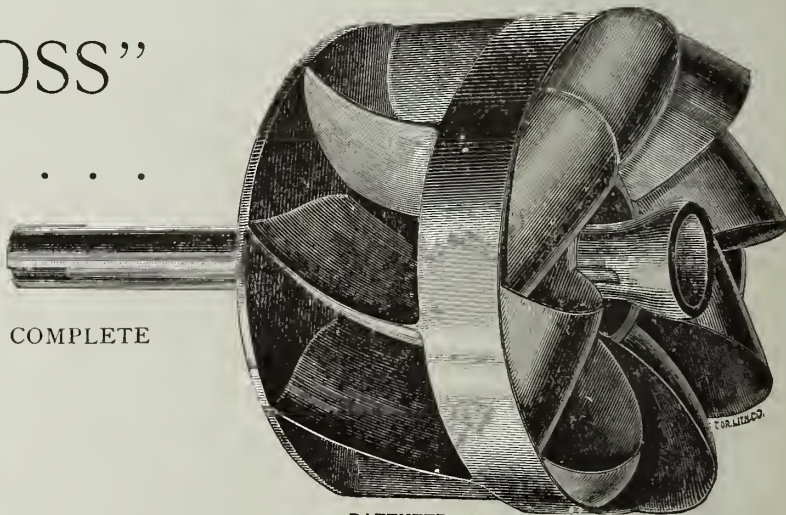
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THE CANADA LUMBERMAN

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A LARGE LUMBER CONCERN.

THE town of Arnprior, as is the case with many growing towns to-day, owes its inception and prosperity largely to the enterprise of one man.

Arnprior is beautifully situated at the confluence of the Madawaska and Ottawa rivers. Here a little more than forty years ago the late Daniel McLachlin purchased the water power and 400 acres of land in the township of McNab, within the limits of which the municipality of Arnprior now stands. At that time there were but few families resident in the locality. Immediately on acquisition of the site by Mr. McLachlin, in the year 1851, he proceeded to create a town. He had it surveyed, and the present town was laid out. Several lots were sold at a very low figure and a goodly number presented as free gifts to intending settlers. The result of this generous action was speedily manifested in the erection of several buildings, and in a short time the dense pinery gave place to the village streets and the hum of industry took the place of the silence of the forest. For some time previous to this a saw mill with one circular saw was operated, but did not prove a success, and after lying idle for some years was eventually carried away by a freshet. On the completion of the Canada Central Railway, about the year 1862, a water mill was built by Mr. McLachlin, and in the fall of the same year the construction of another water mill was commenced. The latter mill was completed the next season, and both mills have been running every season since without intermission.

A third mill, operated by steam, was built on the shore of the Chats Lake in 1871, and after running successfully for four years was destroyed by fire. It has been replaced by another, built by the present firm, which for size and cutting capacity stands at the head of its kind on the continent. A fourth mill is at present in course of erection, and everything that science and art can bring to bear on its construction is being utilized to produce a building and machinery capable of competing with the advanced ideas of the most progressive, scientific lumbermen and manufacturers.

During the sawing season about 700 men find constant employment in the mills, and in the winter the operations in the woods require a force of from 900 to 1,000 men, besides about 300 teams. The output of sawn lumber, as a result of the labors of this large force, is enormous, last season's cut being in excess of 80,000,000 feet, or 500,000 feet a day of eleven hours; and the calculation is that when the fourth mill is in operation, with all its appliances of progressive science, that the cut will be proportionately larger in excess of that quantity.

The facilities for carrying on this enormous business are as varied as they are complete. Everything that almost unlimited space and a generous outlay of money can secure is at the command of the men who are at the heads of the different departments and look after the varied interests. The piling ground for the sawn lumber may be said to be the largest in the world, there being nearly ten miles of track laid through it.

The machinery in the water mill, No. 1, consists of one stock gate, one slabber and two Yankee gates; in water mill No. 2, one stock gate, one slabber and one large circular, with all necessary edgers, trimmers and appliances for lath, etc.

The steam mill, of which we give an illustration on this page, is driven by two engines of about 800 horsepower; its machinery consists of two slabbers, one large stock gate, one twin circular, two stock gates, one band

THE GATINEAU.

A MONOGRAPH BY BENJAMIN SULTZ, OTTAWA, ONT.

THE first white man who spoke about River Gatineau was Champlain, in 1613, but he gave no name to that stream. The word Gatineau means a resident of Gatinais, a small district situated between Paris and Orleans. All the families called Gatineau in France are from that region. Canada never had more than one family by that name—it was that of Nicolas Gatineau, alias Duplessis, who came to this country in 1649, and acted as clerk of the Hundred Partners, also as Clerk of the Court and a notary public at Three Rivers and Montreal. From 1651 he resided at Three Rivers, until 1663, when he got married and moved to Cape de la Madelaine, on the other side of the St. Maurice where the Algonquins had a village of their own.

The Hundred Partners had been dissolved recently when Gatineau married Marie Crevier, the sister of Jeanne Crevier, who was the wife of Pierre Boucher, governor of Three Rivers and founder of Boucherville, the direct ancestor of the premier of Quebec.

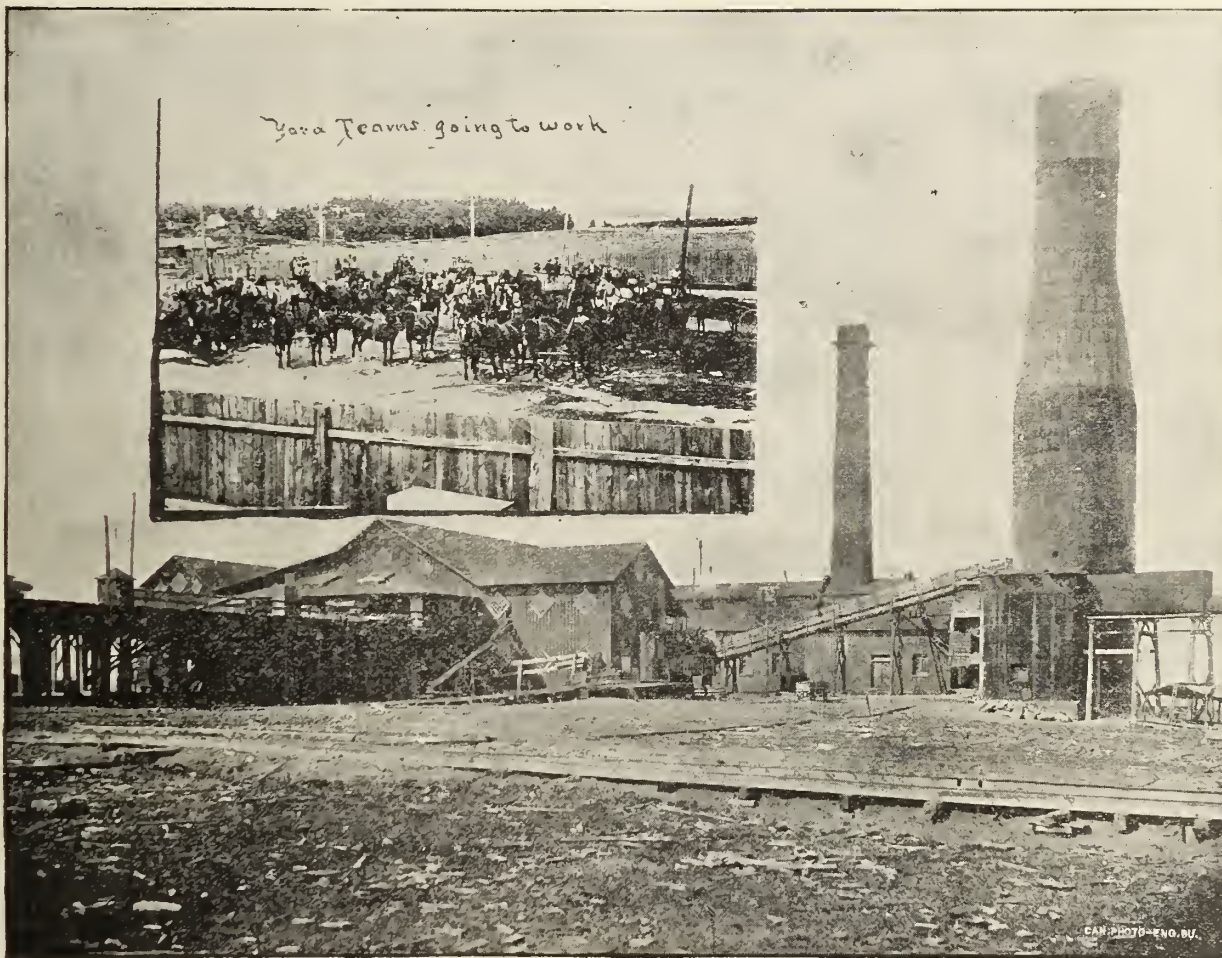
The post of Cap de la Madelaine was one of the best trading places in Canada at that time. All the Indians of the north, and some of the west, used to go there each summer to meet the French and sell them the fur they had gathered for that purpose. It is well known that from 1635 to 1700 the route from the spot where the city of Ottawa is built to the lower St. Lawrence was through either the Lievre or the Gatineau rivers, because of the facility of communication between these "walking roads" and the ones emptying in the St. Maurice. The Indians roved through that vast country and

often met the French merchants on their way at certain points on appointed dates.

Gatineau had three sons: Nicolas, who made a name for himself in the wars against the New England colonies. Jean was seigneur of Gatineau, a property in the county of St. Maurice, and trader at Detroit after the establishment of that place. He died at Three Rivers in 1750. Louis was seigneur of St. Marie, in the county of Champlain, and died there in 1750 also; he is the only one of the three brothers who left a son, but this last one never married. Therefore, about the year 1800 the Gatineau family were totally extinguished in Canada.

Nicolas' death is unknown, at least so far as the date is concerned. The last mention of him is in the summer of 1681. What would you say to the supposition that Gatineau got drowned in the Gatineau river?

[How many since that date, especially those engaged in lumbering, have found their deathbeds in this same Gatineau river.—Ed. LUMBERMAN.]



THE McLACHLIN MILE, ARNPRIOR, ONT.

saw, all of which are of the latest and most improved pattern. The machinery of the new steam mill is not yet finally decided upon, as advantage will be taken of the most recent improvements prior to the commencement of its operation.

The Messrs McLachlin Bros. are owners of very extensive limits on the Madawaska, Bonnechere, Peta-wawa, Amable du Fond and Coulonge Rivers, and within the last few months they have purchased over 500 miles of virgin timber land on the upper Ottawa, on which there never yet has been a tree cut.

This large lumber business is carried on to-day by H. F. McLachlin and Claude McLachlin, surviving sons and successors of the business so successfully founded by their father, the late Daniel McLachlin.

A brick dwelling house owned and occupied by James Jarrett, lumberman, Alliston, Ont., was destroyed by fire on the 10th ult.

ONTARIO'S BIG TIMBER SALE.

THE sale of Ontario timber limits, in the Legislative Chamber of the old Parliament buildings on Thursday, October 13, marked in some respects a memorable meeting. Ontario legislators will not again be called upon to answer to the appeal of "call in de members" within the dingy walls of the old chamber, and there was something suggestive, though possessed of a sombre shading, in the ring of the auctioneer's "going, going, gone," as Ontario's forests to the value of \$2,308,475 were knocked down to the highest bidders.

Seldom, when political excitement has been running at the highest, has a larger audience gathered within these walls, and perhaps at no time within the history of the buildings were more "dimes and dollars, dollars and dimes," as the old jingle goes, represented in any audience that has assembled in the old historic buildings.

THE AUDIENCE.

Lumbermen were present from all parts of Canada and the leading lumber centres of the United States. Among these might be named: John Charlton, M.P., Lynedoch; Allen Gilmour, Trenton; George Bryson, Jun., John Bryson, M.P., Fort Cologne, Q.; Nelson Holland, Buffalo; Hiram Emery, Bay City; Arthur S. Hill, Maurice Quinn, Saginaw; A. McLennan, Cheboygan, Mich.; T. Charlton, Tonawanda; Matthew Slush, Mount Clemens, Mich.; C. Beck, D. Davidson, Penetanguishene; Alexander Fraser, Westmeath, Q.; C. J. Smith, Ottawa; Alex. Barnet, Renfrew; Hiram A. Calvin, Garden City, Mich.; A. Pack, Alpena, Mich.; J. W. Fitzgerald, Parry Sound; C. W. Wells, Saginaw; Temple Emery, East Tawas, Mich.; E. Walker Rathbun, Deseronto; H. B. Smith, Owen Sound; J. D. Shier, C. Henderson, W. Webster, Bracebridge; P. M. Guntie, Trenton; H. Waters, Lindsay; James Sharpe, Burk's Falls; C. W. Burns, South River; James Moills, Saginaw, and George H. Miller, Brooklyn. Merrill & Ring, of Saginaw, and the Whitney estate, of Detroit.

The seat of honor was occupied by Hon. A. S. Hardy, Commissioner of Crown Lands, whose countenance bore a pleased and satisfied expression that might have been taken as a premonition of the success he saw in store for the province, and indicated later in the large sum realized from the sale. On the right of the minister sat Mr. Aubrey White, assistant commissioner of Crown Lands, whose wise counsels, based on a very perfect knowledge of the timber conditions of the province, were frequently disclosed, as the sale proceeded, in whispered conversations between the commissioner and his deputy. The auctioneer's hammer was wielded by Registrar Peter Ryan, whose hand has lost none of its cunning, as one of the cleverest auctioneers of the province, and who by his ready Irish wit kept up interest in the proceedings from beginning to end.

A STUDY OF FACES.

It was a picturesque scene in not a few particulars. The faces were a study. Thomas Murray's was a face that became familiar to nearly everyone before the sale was closed. Pontiac's ex-M.P. is well known to many Toronto citizens, but his shiny silk hat and gold-rimmed spectacles did not want introduction on this occasion, as Mr. Ryan would ever and anon appeal to Mr. Murray to help along the sale when the bidding would commence to drag, just as he would at another time turn to the hero of Halton, Mr. John Waldie, to start some of the more valuable limits with a round bid of say \$5,000 a square mile. The doughty champion of Sunday Observance, Mr. John Charlton, M.P., was a studious onlooker, though the sale closed without anything falling his way. Michigan lumbermen, in the persons of Mr. A. Pack, Alpena; T. Emery, East Tawas; Hiram Emery, Bay City; Arthur S. Hill, Saginaw; A. McLennan, Cheboygan, and others occupied conspicuous places among the bidders.

Others besides lumbermen had timber berths knocked down to them. There is not much connection between millinery and lumber, unless the chip hat is a remote relative, nor between general dry-goods and the trees of the forest, but this did not prevent Toronto's well-known wholesale milliner, Mr. S. F. McKinnon from putting away \$10,075 of his pile in Ontario limits, and John Drynan (W. A. Murray & Co.) going it to the tune of \$38,662.

BERTHS AND BUYERS.

Promptly at the hour of one o'clock the stentorian tones of Mr. Ryan were heard. The berths sold and the buyers were as follows:—

Township of Biggar, berth No. 3, concessions 7 to 14, lots 1 to 10, area 13¼ square miles; purchaser J. McCoy, price, square mile, \$4,000, total \$53,000.

Township of Butt, berth No. 2, concessions 1 to 4, lots 11 to 35, area 13¼ square miles, Hall & Booth; price, per square mile, \$1,200, total, \$16,500. Berth No. 3, cons. 5 to 9, lots 11 to 25, area 12 square miles, T. Murray, price \$500 square mile; total \$6,000. Berth No. 4, concessions 10 to 14, lots 11 to 25, area 11¼ square miles, T. Murray, price \$1,600 square mile; total \$18,800. Berth No. 5, concessions 1 to 7, lots 1 to 10, area 11¼ square miles, T. Murray, price, \$1,250; total \$14,062.50. Berth No. 6, concessions 8 to 14, lots 1 to 10, area 11 square miles, T. Murray, price \$1,150, total \$12,650.

Township of Finlayson, berth No. 1, concessions 1 to 7, lots 1 to 10, area 10¼ square miles, G. W. Pack, price \$1,800, total \$18,450. Berth No. 1, concessions 8 to 14, lots 1 to 10, area 10¼ square miles, Beck Manufacturing Co., of Penetang, price \$4,400, total, \$47,300. Berth No. 3, concessions 1 to 7, lots 11 to 20, area 10 square miles, James D. Shier, price \$600 square mile, total \$6,000. Berth No. 4, concessions 8 to 14, lots 11 to 20, area 11 square miles, J. Baird, price \$4,100 square mile, total \$45,100. Berth No. 5, concessions 1 to 7, lots 21 to 30, area 11 square miles, C. A. Millener, price \$1,450 square mile, total \$15,950. Berth No. 6, concessions 8 to 14, lots 21 to 30, area 10¼ square miles, J. Waldie, price \$1,300 square mile, total \$13,975. Berth No. 7, concessions 1 to 7, lots 31 to 40, area 11 square miles, Hill & Wells, price \$2,800 square mile, total \$30,800. Berth No. 8, concessions 8 to 14, lots 31 to 40, area 11 square miles, C. Cameron, price \$3,200, total \$35,200.

Township of Hunter, berth No. 3, concessions 1 to 8, lots 21 to 35, area 17 square miles, Gilmour & Co., price \$12,700 square mile, total \$215,900. Berth No. 4, concessions 1 to 8, lots 11 to 20, area 11¼ square miles, Gilmour & Co., price \$7,000 square mile, total \$82,250. Berth No. 5, concessions 1 to 8, lots 1 to 10, area 12¼ square miles, John Drynan, price \$2,650, total \$32,462.50.

Township of McCraney, berth No. 11, concessions 1 to 7, lots 1 to 10, area 11¼ square miles, J. Baird, price \$4,750, total \$53,437.50. Berth No. 2, concessions 8 to 13, lots 1 to 10, area 11¼ square miles, A. McArthur, price \$1,800, total \$20,250. Berth No. 3, concessions 1 to 7, lots 11 to 20, area 11½ square miles, Beck Manufacturing Co., price \$900; total \$10,350. Berth No. 4, concessions 8 to 14, lots 11 to 20, area 11½ square miles, A. McArthur, price \$1,800, total \$20,250. Berth No. 5, concessions 1 to 7, lots 21 to 35, area 15¾ square miles, John Waldie, price \$2,700, total \$142,525. Berth No. 6, concessions 8 to 14, lots 21 to 35, area 15 square miles, John Waldie, price \$4,100, total \$61,500.

Township of McLaughlin, berth No. 3, concessions 1 to 8, lots 1 to 15, area 15¼ square miles, Gilmour & Co., price \$4,900, total \$74,725.

Township of Paxton, berth No. 1, concessions 1 to 7, lots 1 to 10, area 10¼ miles, W. Milne, of Ethel, price \$1,000 square mile, total \$10,750. Berth No. 2, concessions 8 to 14, lots 1 to 10, area 11½ square miles, A. McArthur, price \$1,000 square mile, total \$11,500. Berth No. 3, concessions 1 to 7, lots 11 to 20, area 11 square miles, A. McArthur, price \$1,000, total \$11,000. Berth No. 4, concessions 8 to 11, lots 11 to 20, area 11½ square miles, John Gray, price \$7,400, total \$85,100. Berth No. 5, concessions 1 to 7, lots 21 to 30, area 16½ square miles, John Gray, price \$5,700, total \$94,050. Berth No. 6, concessions 8 to 14, lots 21 to 30, area 16½ square miles, price \$7,000 square mile, total \$115,500.

Township of Peck, berth No. 1, concessions 1 to 4, lots 1 to 15, area 9¼ square miles, Gilmour & Co., price \$2,600, total \$24,050. Berth No. 2, concessions 5 to 9, lots 1 to 15, area 10½ square miles, Gilmour & Co., price \$5,900 square mile, total \$61,950. Berth No. 3, concessions 10 to 14, lots 1 to 15, area 11¼ square miles, Gilmour & Co., price \$3,500, total \$39,375. Berth No. 4, concessions 1 to 4, lots 16 to 29, area 7 square miles, W. Dymont, price \$2,700, total \$28,900. Berth No. 5, concessions 5 to 9, lots 16 to 29, area 8½ square miles,

Hill & Wells, price \$3,400, total \$28,900. Berth No. 6, concessions 10 to 14, lots 16 to 29, area 11¼ square miles, Gilmour & Co., price \$17,500, total \$205,625.

Township of MacLennan, north part of berth No. 49, area 13 square miles, Hall & Emery, price \$4,400, total \$57,200.

Algoma district, Township of Lumsden, concessions 1 to 6, lots 1 to 11, area 31¼ square miles, C. Campbell, price \$3,100 square mile, total \$96,875. Township Morgan, concessions 1 to 6, lots 1 to 12, area 35¼ square miles, G. Pack, Alpena, Mich.; price \$10,600, total \$373,650. Berth on west side Pogamasing Lake, area 4 square miles, W. Stewart, price \$7,460, total \$29,600.

Thunder Bay district, berth No. 1, adjoining the Township of Pardee, area 12 square miles, J. F. Coleman, price \$2,800, total \$33,600. Berth No. 7, area 4 square miles, was withdrawn at \$1,000.

Rainy River district, berth No. 1, north of Turtle and Burnt Lakes, and south of White Pine Lake, area 15 square miles, C. Cameron, price \$720 square mile, total \$10,800. Berth No. 27, on the east side Manitou River, running into Rainy River, area 7 square miles, G. J. Grant, price \$550, total \$3,850. Berth 36, on Nameukon River, area 24 square miles, W. Ross, price \$400 square mile, total \$9,600. Berth No. 37, area 15 square miles, was withdrawn at \$350 square mile. Berth No. 64, situated on Turtle Lake, area 13 square miles, S. F. McKinnon, price \$775 square mile, total \$10,075. Berth 65, on Turtle Lake, area 7 square miles, G. J. Grant, price \$475, total \$3,325. Berth No. 66, on east side of Clearwater Lake, 8 square miles, J. Drynan, price \$775, total \$6,200. Berth No. 67, north side of Clear Lake, area 1½ square miles, G. J. Grant, price \$975, total \$1,462.50. Berth No. 68, on Mink and Pigeon Lakes, area 4 square miles, G. J. Grant, price \$475, total \$2,900. Berth 69, on Martin Lake, area 16 square miles, C. Cameron, price \$950, total \$15,200.

THE PURCHASES SUMMARIZED.

Following is a summarized list of the purchasers and the amounts paid:—

Gilmour & Co., Trenton.....	\$ 703,875
G. W. Pack, Alpena, Mich.....	392,100
J. Waldie, Toronto.....	118,000
J. Baird.....	98,537
A. McArthur.....	63,000
Beck Manufacturing Co., Penetang.....	57,650
Thomas Murray, Pontiac.....	51,512
J. McCoy.....	53,000
Hall & Booth.....	16,000
W. Stewart.....	29,600
N. Dymont.....	18,900
C. A. Millman.....	15,950
C. Cameron.....	61,200
Hill & Wells, Michigan.....	59,700
John Drynan.....	38,662
James D. Shier, Bracebridge.....	6,000
W. Milne, Ethel.....	10,750
John Gray.....	294,550
Holland & Emery, East Tawas, Mich.....	57,200
C. Campbell.....	96,875
G. F. Coleman.....	33,600
G. J. Grant.....	11,537
S. F. McKinnon, Toronto.....	10,074
W. Ross, Rat Portage.....	9,600

\$2,308,475

SALE CHIPS.

Six hundred and thirty-seven square miles of limits were sold.

The largest aggregate price paid for any one berth was \$373,650. G. W. Pack, of Alpena, Mich., got it.

"I will just try and see how far I can make you go with drops of sweetness," was one of the many witticisms of the rollicking Peter Ryan.

No conditions were stipulated by the Government making it compulsory that the logs be sawed into lumber in the province. Despite this fact Canadians were the heaviest purchasers.

At the timber sale of 1887, the last held, the highest price paid per square mile was \$6,350; the tidy sum of \$17,500 was reached in one case at the present sale, Gilmour & Co., of Trenton, being the purchaser.

"Why did the limits fetch such high figures?" said John Charlton, M.P.P., repeating a question put to him. "That is what a good many of us have been trying to find out. A would-be buyer went all over one limit and figured its top value at \$3,000 per square mile. But that same berth brought \$17,500 per mile. It was a great sale.

VIEWS AND INTERVIEWS.

Lumbering in Bulgaria. At the National Bulgarian Exhibition at Philippopolis there is a pavilion of forestry, tastefully constructed of log-wood, and containing various specimens of woodwork and blocks cut from the stems of the enormous trees which still flourish in the remote primeval woodlands of Rhodope and the Balkane. This is a reminder of the ruthless destruction of Bulgarian forests which went on in Turkish time and still continues to some extent, notwithstanding the efforts of the Bulgarian Government to check it. An interesting feature in this pavilion is a portion of one of the wooden tramways which are used for bringing timber down the steep sides of the mountains. The stems of young trees supply the place of rails; the felled timber is laid on wooden trolleys with small wooden wheels, and descends the mountain at a rapid rate in charge of two or three men, who find a precarious standing-place on a peg which projects over the wheels, and check the pace by working a brake with the foot.

A Peculiarity of Wood. Microscopical investigation has proved that the pores of wood invite the passage of moisture in the direction of the timber's growth, but repel it in the opposite direction. This fact accounts for a phenomenon which is often noticed, and which puzzles a good many people, namely, why two pieces of timber sawn from the same section of a tree sometimes appear to possess very variable degrees of durability. If the wood, say, of a gate-post is placed right end up, the moisture in the soil will affect it, but the rain falling on the top will do it little harm; if, on the other hand, the butt end of the tree is put uppermost, the top of the post will decay, because the moisture of the atmosphere will penetrate the pores of the wood more rapidly in this position. Many people have noticed that the staves in a wooden tub appear to absorb moisture irregularly, some getting quite sodden, while others remain comparatively dry, and apparently almost impervious to moisture. In this case the dry staves are in the position in which the tree grew, while the saturated ones are reversed.

Some Woods of British Columbia. Between the Kootenay river and the Rocky mountains, in British Columbia, maples are found quite abundantly, but compared with the pines and other coniferous timber they are so small as to appear more like shrubs than trees. But on the flat lands of the coast the maple attains great size, being often two and a half to three feet in diameter, though the trunk is often forty to fifty feet in height. The settlers call it the vine maple. The wood is very cross grained, and when dressed resembles bird's-eye maple quite closely, the grain being really very fine and handsome, and polishes beautifully, but requiring considerable labor. It must, in time, be recognized as of value for a furniture or cabinet wood. Back from the coast, in the valleys, may be found vast quantities of common poplar, cottonwood, white birch, alder, willow and yew. Compared with the other timber these species are so small as to not be considered of any value by the explorers, but the time must surely come when they will all be wanted for lumber. That time will come with the building of railroads and the settlement of the country to the eastward, which is nearly all a comparatively treeless prairie.

Wide of the Mark. It is a good thing to point a moral and adorn a tale when opportunity occurs and the moral is of healthful, vigorous growth. The weaklings in morals are of as little use in the world as the weaklings of the forest. It is amusing, however, to notice how far aside, sometimes, the illustrations of the moralist are from real facts, conditions and experience. A recent writer on these lines tells us that "the history of the lives of the men who have made their country's history illustrious shows that they owed their profundity and diversity of knowledge to the labor they were obliged to perform in boyhood. Daniel Webster was obliged to assist in running his father's saw mill, which he afterwards affirmed was the best school he ever attended. He studied while the saw was cutting through the log." A lumber contemporary rather spoils the story by remarking: "The young man

who undertakes to follow Webster's example in these times will get beautifully left. The modern saw mill doesn't afford much opportunity for study, contemplation or anything else while the saw is cutting through the log. There were no shotgun feeds in the time of Webster."

Brains and Tails of Trees. "What a strange underground life," says Dr. Oliver Wendell Holmes, "is that which is led by the organisms we call trees! These great fluttering masses of leaves, stems, boughs, trunks, are not the real trees. They live underground, and what we see are nothing more nor less than their tails. Yes; a tree is an underground creature, with its tail in the air. All its intelligence is in its roots. All the senses it has are in its roots. Think what sagacity it shows in its search after food and drink. Somehow or other the rootlets, which are its tentacles, find out that there is a brook at a moderate distance from the trunk of the tree, and they make for it with all their might. They find every crack in the rocks where there are a few grains of the nourishing substance they care for, and insinuate themselves into its deepest recesses. When spring and summer come they let their tails grow, and delight in whisking them about in the wind, or letting them be whisked about by it; for these tails are poor, passive things, with very little will of their own, and bend in whatever direction the wind chooses to make them. The leaves make a deal of noise whispering. I have sometimes thought I could understand them, as they talk with each other, and that they seem to think that they made the wind as they wagged forward and back. Remember what I say. The next time you see a tree waving in the wind recollect that it is the tail of a great underground, many-armed, polypus-like creature, which is as proud of its caudal appendage, especially in summer time, as a peacock of his gorgeous expanse of plumage. Do you think there is anything so very odd about this idea? Once get it into your heads and you will find that it renders the landscape wonderfully interesting. There are as many kinds of tree tails as there are of tails to dogs and other quadrupeds. Study them as Daddy Gilpin studied them in his "Forest Scenery," but don't forget that they are only the appendage of the underground vegetable polypus, the true organism to which they belong."

Wood in Clothespins. The intelligent lumberman is interested not only in the trees of the forest, as they stand there in all their majesty and greatness, but he takes a pleasure in following their history after they have been felled and again after they have passed from the saw and gone, it is perhaps hard to say, where. Aiming to give an individuality and distinctiveness to the "Views and Interviews" page of the LUMBERMAN, we have discussed questions of this character from time to time. Last month, in propounding the problem, "Where does the lumber go?" we showed what a large quantity is used in the manufacture of packing boxes. At another time we have told the story of the lumber employed in the manufacture of spools and shoe pegs. Suppose we trace no inconsiderable number of trees until they reach the shop, and are made into the simple little article of clothespins—a necessary article to every housekeeper. "Clothespins," said a dealer, "are usually made of white ash, but we have them of beech, birch and maple. The wood is taken to the factory in logs and cut into lengths of thirty-one inches by circular saws. These are then cut into blocks which are reduced to sticks, then placed under another saw and reduced to clothespin lengths. Next the turner takes a hand at them, and from him they go to the slatting machine. They are placed in troughs by the operator, the machine picking them up and slatting them. Then they are placed in a revolving pipe drier, going thence to the polishing cylinder. Each pin passes through eight hands. A single plant consists of a board saw, gang splitter, gang chunker, turner lathe, drying house and polisher, and costs from \$10,000 to \$19,000. The little blocks of wood, 5½ inches long, are placed on an endless belt, which feeds the blocks automatically into the lathe. As the lathe is turned the pin is taken automatically from the spindle and placed on a turn-table and carried to a circular saw, which whittles out the slat into a pin. It is then finished and thrown

out of the turn-table by the same appliance that puts the pins on the table. Falling, they are caught in a basket or barrei, and are taken to the drying house to remain twelve hours or until dry. The polishing cylinder holds from twenty to forty bushels. This is run at a slow speed, about thirty turns a minute, and by simple friction and contact they become polished."

CHOKE BORE SAW MILLS.

THE saw mill should be in its arrangement the reverse of a first-class shot gun. It should scatter at the muzzle, so to speak.

Perhaps the most common fault in saw mill construction is to make the actual cutting capacity of the mill in excess of the machinery, appliances and means for disposing of the product.

Oftentimes the constriction begins immediately behind the circular, band or gang. Here the trouble will be with the edger perhaps, which may be utterly unable to take care of the lumber if delivered to it as fast as possible, or if it does so will do its work at the expense of quality. More than one saw mill is losing from 25 cents to 50 cents a thousand on account of poor edging. Sometimes the trimmers are overloaded and either hold back other parts of the mill or do their work without proper regard to its character.

Sometimes the devices for taking care of slabs or edgings are imperfect, and not infrequently a sawyer will have to stop his carriage for a few seconds until some slab is gotten out of the way of the board which is to follow it.

Sometimes the sorting platform is entirely inadequate. But, while one or all of these facts are often found, it is a very rare thing indeed to find a mill so built that the tail end is too much "opened out," so to speak. The fact seems to be that too much attention is given to the primary machinery and not enough to the others. It may be possible, though hardly conceivable, to have too great a capacity with secondary machines, for such a method of construction would almost invariably result in improving the quality of the product to an extent which would more than pay for the extra expense involved.—The Timberman.

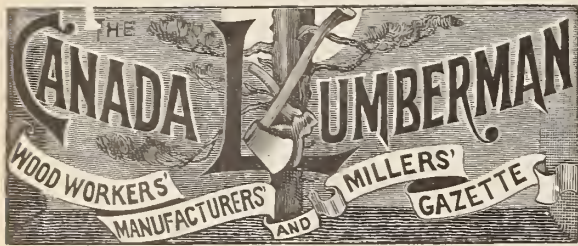
A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

THE SAWMILL OF THE GODS.

BY JOEL MOODY.

THE saw mill of the gods saws slowly the tree;
No matter how hard or how soft it may be,
Nor the kind, whether oak, or basswood, or pine,
The sawdust comes out of it almighty fine.
And noiseless it runs as the hour glass of time;
And sharply it cuts, and its work is sublime;
For high on Olympus this saw mill doth stand,
And ever it runs by an Almighty hand.
On the timber of mortals it saweth away;
And ever it saws by night and by day;
And it faithfully saws up all kinds of wood,
The infernal bad and almighty good.
Trees, storms and lightning have ruined and rift;
Rotten of heart; slimy deadwood and drift;
Old haunts of the vermin, where the woodpecker lurks,
Are sawed in this mill where the Almighty works.
And the buzz saw therein shines bright as the suns
Forged by old Vulcan; and like lightning it runs,
With this notice above it lettered in chert:
"The man who here monkey gets mightily hurt."
And there an Inspector stands silent and sad,
To divide all that's sawed—the good from the bad.
For says an old saw: "In the mills of the gods,
Between good and bad there's an almighty odds."
And the one who divides, divideth it well;
The rot, shake and slabs he slides into hell;
But the sound he saves for the friends of the God,
Who shaketh the earth with his almighty nod.
And in the divide of the sawed it is well
To consider how much may slide into hell;
For it seems to your servant singing this hymn,
That the part for the gods is almighty slim.
Friends, I'm a lumberman and tell what I know;
That in poor grades there's hell and profits are low;
But we'll find when we get to Jupiter's land,
That the profit in "clears" is almighty grand.



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—BY—

ARTHUR G. MORTIMER

OFFICE.

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J. S. ROBERTSON, EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

RAPID DIMINUTION OF ONTARIO PINE.

IN another column will be found a detailed account of the timber limits sold by the Ontario Government on the 13th ult. As in every former instance in which the Government have put stumpage up for auction, the amount of money realized exceeded the Government's expectations. Looked at from this point of view the sale was no doubt a great success, in the same way that each of the former sales was, at the time it was held, considered a success; but as each of the former sales has been so eclipsed in the matter of prices by the sale succeeding it as entirely to reverse this appearance, it is probable that the same will be the case again, and that the apparently large prices of to-day will look quite small in the near future.

Indeed, we look for this result with more certainty now than on former occasions for the reason that our pine timber resources, which a few years ago seemed so great that to attempt an accurate estimate of them was deemed too difficult an undertaking, have since then become reduced to such small proportions that the end of the whole supply in both Canada and the United States is now plainly within view.

While the United States Government has from time to time had estimates made of its total timber resources, nothing of the kind that we know of has ever been done on the part of the Dominion or Provincial Governments; at least, if any such statistics have been prepared their publication has been so limited that we have never seen them. Now, however, as far as pine is concerned, there is scarcely any need of such action on the part of the Government, for the lumbermen have pierced so nearly through our pine forests with their operations that they have not only made short work of the estimating as far as they have gone, but have reached the point where daylight, so to speak, can be plainly seen showing through from the far side. In the Province of Ontario, while the streams running into the Ottawa on the east have been operated up to their sources by the lumber-

men of that district, these have been met at the summit by the western men following up the streams leading into the Georgian Bay. At the same time both Canadians and Americans have been busy on the north shore.

The Crown Lands Department has at this sale disposed of the last timber berths remaining to the Government in all this territory to a distance of some three or four miles north of Lake Nipissing. And not only is the whole of this section of country now in the hands of the operators, but it has been, with the exception of the last sold, very largely cut off; so much so that we do not believe there is now left 5% of the pine timber which once stood upon it. To the north of this there is left nothing more than what may be termed the fringe of our once great pinery, and a very straggling fringe it is, containing little or no timber equal in size and quality to what has been cut, and only a small proportion of pine timber of any kind.

The pine is there nearing the northern limit of its growth, is decreasing in size, quality and quantity, and the greater part of the country is quite destitute of it. Of the once great Ontario pinery we feel safe in saying not 10% remains.

The Province of Quebec is still more depleted, and the great pine states of the Union, Michigan, Wisconsin and Minnesota with an annual output to date of some 7,000,000,000 feet, have, we understand, scarcely got twice that quantity left now. We are merely pointing to the present state of affairs without comment, hoping to inspire a higher appreciation among our own people of the remnant still left us of what has been and is yet one of our greatest sources of wealth and prosperity.

LOG DUTY ENQUIRY.

A MEMBER of the Globe staff has been visiting the various lumber sections of the Dominion with the view, it is stated, of securing an expression of opinion from those interested concerning the much discussed question of an export duty on logs. This ground has been so thoroughly travelled in these columns during the past two years that it can hardly be said the letters of our daily contemporary, complete and impartial as they have been, have brought forth any facts or information that have not appeared in some shape in the LUMBERMAN. They will prove valuable, however, in reaffirming what is clear to any one who has given the question close study, that if there is any truth in the old saw that every question has two sides it is certainly true of the log duty question. The wide difference of opinion among lumbermen themselves, indicated in the interviews of the Globe's correspondent with lumbermen in the same district and those of different districts, shows that there can be little expectation of a united front being presented by the trade in any agitation for altered tariff conditions.

The points visited by the Globe's representative, at the time of this writing, had been Parry Sound, from which place two letters were written, Midland, Waubauskene, Ottawa and St. John, N.B. In the first letter we are told that the people of the Georgian Bay district are seriously perplexed over the exportation of saw logs to the United States. This remark is followed by the significant statement, which is the keynote of the whole enquiry, that "there is such diversity of opinion and such a conflict of interest that it is almost impossible to arrive at a conclusion as to what course of action should be pursued, having regard both to vested rights and public welfare." Lumbermen who are limit owners are "quite satisfied to leave what they consider well enough alone." They are able under present conditions to dispose of the larger part of their manufactured product in the United States market, while, if barred out of this field, they only see stagnation ahead for the Canadian lumber business. We can understand that the townspeople from Penetanguishene to Parry Sound hold only one opinion on the subject, which is that the free exportation of logs must prove ruinous to these communities.

The News of this city, which assumes to speak for the labor interests, has laid special stress on the injurious effect of the large log exportation upon the labor market in these northern towns. It is well in discussing a question of this character that one should be sure one is right before going too far ahead. The loss to the workingman is not as great as some have stated, as has been pointed

out in these columns before, and the President of the Midland and North Shore Lumber Co. touches this point in saying: "By far the largest amount of money is expended and the greatest number of men employed in getting the timber out of the woods. It costs about \$7 to bring the logs here, and two dollars to saw them. It must be remembered that the Americans bring over here a large amount of their capital, which they pay out in wages to cutters and drivers."

No lumber town in the province has suffered more from the closing down of its saw mills than Midland. Four large mills are located in that town and not one of them has been in operation for some time. It would be unfair, however, to say that these conditions are due wholly to the exportation of logs to the States. The Ontario Lumber Co. avoid the expense and risk of towing their logs down the Georgian Bay by cutting them into lumber at their mill at French river. And here is Midland's most serious disadvantage as a lumber centre. The logs are no longer near the mills, and each year the distance between the saw and the logs becomes greater. A second mill in Midland is that operated for a time by Peters & Cane, and now in the hands of the Western Bank. Their chief difficulty in continuing was that of securing logs to cut. The Emery Co. and Chew Bros., owners of the other two mills, find it more profitable to export logs to Michigan, and "the premium placed upon the exportation of logs to the United States is no doubt responsible for closing those two mills."

Waubauskene is the home of the large mills of the Georgian Bay Consolidated Lumber Co. Mr. Sheppard, manager of the mills, says his company are opposed to having the export duty reimposed upon logs for various reasons, and chief of these "because the McKinley Bill provides that there shall be added to the United States import duty upon lumber, the amount of export duty imposed upon logs by any foreign country." His company are owners of limits and also manufacture lumber. They have not sold any logs for export. One-third of their cut of lumber goes to the old country.

Ottawa lumbermen are practically a unit against the re-imposition of the export duty. Hon. E. H. Bronson, Mr. J. R. Booth and Mr. Pattee were among those interviewed. Mr. Booth owns extensive limits on the Georgian Bay, and might, he said, "be thought to be directly interested in the re-imposition of an export duty, but nevertheless he believed it to be to the general interest to leave things as they were." "What is more," added Mr. Booth, "it is surely time to cease this continual change and agitation. It is important to the business that those engaged in it should know what to figure on."

The New Brunswick letter of the Globe does not deal with the question of duty, but is mainly a review of the lumber trade in the Maritime provinces. The indications for a revival in the lumber trade in these provinces is not considered over bright.

The one satisfactory solution to the whole difficulty is free trade in lumber. This proposition does not meet with universal favor among United States lumbermen; but the signal failure of the On-to-Washington agitation of a few months ago to protest against the passage of the Bryan free lumber bill, when less than fifty lumbermen thought it worth their while to trouble Congress about the matter with their presence, may be taken as satisfactory evidence that the American lumber trade have no serious objection to free lumber. Mr. Ulyot, of the Midland and North Shore Lumber Co., thinks "we will be able to get American import duty on lumber taken off." This view of the situation is not held alone by Mr. Ulyot. The election of Mr. Cleveland to the presidency might bring about free lumber.

A BIG JOB.

A MONTREAL correspondent, usually well informed on lumber matters, writes: "It is reported that a great syndicate of Michigan lumbermen is aiming at buying out the whole lumber interests of the Ottawa valley. It is a big job to undertake, but western lumbermen do great things, vide prices paid for Ontario limits at the late sale, say equal to \$30 per acre, many of which no doubt contain no merchantable timber."

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MR. David Gillies, M.P.P. for Pontiac, lumber merchant at Carleton Place, says: "The prospects for the winter's cut are very fair and not too bad at all. The woods are full of men as there is any need for now. I could take a few more, however, as there are always a number of deserters. The wages are better this year than last and average about \$20 per month in the shanties taking the good and the bad together. We shall work earlier this year and stop earlier. There is more work and better work done when there is one foot of snow on the ground than when there are three. It is expected that there will be a good demand for lumber and timber."

* * * *

A local lumberman would like to see a distributing yard at Toronto, similar to that which they have at Lockport, N.Y. "If we had this, all the lumber cut in the northern part of the province could be brought here and assorted. Then American buyers would need to come to Toronto to make their purchases through middlemen instead of going direct to the mills, where they only take the best and leave the rest for whoever comes along. If Toronto was made a distributing point, as I suggest, all the output of a mill, the good with the bad, would be brought here, and I am confident the millmen would favor it. Some years ago, when this thing was mooted, the Grand Trunk Railway offered to transfer lumber at Toronto consigned to the United States at \$5 a car extra, and I have no doubt it would still be willing to do so."

* * * *

Mr. Berkeley Powell, of the firm of Perley & Pattee, Ottawa, says that there is nothing in the statement which has been published that the demand for white pine in California would make a boom in the Ottawa lumber trade, and that lumbermen who had been holding limits in this neighborhood entirely for the production of square timber had determined to cut logs to suit the demand. "The matter is absurd," said Mr. Powell, recently. "There are better pines in California than we have here, and millions of yards of limits. The largest mills in the world are there, including the Puget Sound mills. Mr. Bronson owns and works miles of limits there, and they would not look at our lumber. They really have much more than they can find a market for. The Chilean war has restricted their market, and that makes the output smaller. Even if they had no lumber they would draw their supply from British Columbia, and not from here."

* * * *

Hon. Mr. Hardy, speaking of the big timber sale of the 13th ult., after all transactions had been closed, said: "I think nine out of every ten of the lots were bought by Canadians, and mostly Canadian manufacturers at that. This secures the result for which there have been some advocates, viz., that the timber should be manufactured in the province. The department was inclined to the opinion that had the manufacture of the timber in the province been imposed as a condition the receipts would probably have been from a quarter of a million to half a million less than they have been. In any case, a large part of the manufacturing takes place in the province, and if the cost of driving and towing be added to the expenditure, there would not be much but the mere sawing left, and that would not add as much to the cost of manufacturing as some appear to think. The actual sawing is not as important a factor in the expenditure connected with preparing timber as some writers upon the subject suppose. Although efforts were made by some of the lumbermen to have this condition imposed and circulars were sent out to the lumbermen of the country and boards of trade asking them to press this upon the Government, not more than half a dozen have written to the department favoring the object sought by the circular, and but one Board of Trade."

Mr. W. Margach, Ontario Crown timber agent at Rat Portage, who was in the city a week ago, says the town is rapidly progressing in population and manufacturing. The lumbering industry this year has been very successful, and a greater quantity has been manufactured than in any previous year. This quantity will be over 60,000,000 feet, board measure. There will also be taken out 100,000 cedar posts and 5,000 telegraph poles. There are three mills on the Rainy river which cut about 3,000,000 feet board measure. Two of these supply the local demand. Settlement is progressing quite favorably. A large number of the settlers are from the older parts of the province, and are well satisfied. Mr. Margach says that each of such settlers is worth half-a-dozen immigrants who expect to find the land flowing with milk and honey. The demand for labor, Mr. Margach says, is brisk, as large numbers of men are required in the lumber camps. People who do not wish to go into the camps can find employment in taking out railway ties, cedar posts and other timber. Almost all the lumber manufactured at Rat Portage is shipped out west, and as the west develops so does the lumber trade.

* * * *

Mr. C. J. Haden, a southern lumberman, secretary of the Georgia Saw Mill Association, who spent some time in England recently investigating lumber trade affairs, says: "The difference in the prices paid for large timbers and the worked boards is greatly out of proportion to their intrinsic relative value. For example, hewn and sawn pitch pine is worth in the English market to-day from \$22 to \$32 per thousand superficial square feet, while for flooring and ceiling, dried, tongued and grooved, they pay from \$35 to \$45 per thousand. Here the difference is from \$6 to \$12 per thousand in favor of the finished lumber, while in America the drying, dressing and matching only cost the manufacturer from \$2 to \$3 per thousand. Pitch pine is steadily growing in favor for indoor finish in the best houses. It ranks next to the rare woods of Central America in the estimation of London house-builders. White pine from the shores of the Baltic Sea being the cheapest lumber in the British markets, is therefore most generally used for the construction of cheap or tenement houses. A considerable quantity of pitch pine is being used now in building the decks of sailing ships. However, the Canadian pine is preferred for this purpose."

* * * *

A brief personal appeared in the October LUMBERMAN crediting the naming of Douglas Fir of British Columbia to its finder, David Douglas, a British botanist. Edward Jack, of the Maritime provinces, tells of a visit he paid to the home of this botanist a few years ago. "In the flower garden of Scone, one of the finest mansions of Scotland, of which the Earl of Mansfield was hereditary keeper, there stood," says Mr. Jack, "when I was there a few years ago, a Douglas Fir, which was planted in 1834. It was seventy-five feet high and seven feet in circumference at a height of five feet from the ground. The tree was thus named in honor of David Douglas, who was the son of a laboring man, and was born at Scone in 1798. He was educated at the parish school of Kinnorell, subsequently serving an apprenticeship as a gardener in Scone gardens. He was afterward employed in the Glasgow Botanic garden, where his knowledge of botany brought him under the notice of Sir William Hooker, whom he accompanied in a botanical tour through the Highlands. By Sir William he was recommended to the Horticultural Society of London, and was sent several times to America to examine the plants growing in the neighborhood of the Columbia river. In 1824 he was sent out again. On this voyage he sowed a collection of garden seeds in the island of Juan Fernandez, arriving at Fort Vancouver on the 7th of April, 1825. During this visit he crossed the Rocky Mountains. He then returned to London, where he remained some years, but in 1829, when on a visit to the Sandwich Islands, he was accidentally killed by falling into a trap made by the natives to catch wild beasts. There is a pretty monument erected to his memory in his native village, where his talents and virtues are yet remembered."

Just how far the following story is told for political effect I do not know. The LUMBERMAN knows no politics as this term is commonly understood. Moreover I am prepared to give politicians credit for a larger share of honesty than is oftentimes placed to their credit. The devil himself is not always as black as he is painted, albeit that Canadian politicians are not supposed to have any dealings with his Satanic Majesty. The story referred to is told by one of the audience present at the Ontario timber sale of the 13th ult., and does not reflect discreditably on a prominent Ontario politician: "I noticed a little thing that escaped the general observation," said the gentleman in question. "Tom Murray, the Liberal victim of Pontiac, bid \$500 a mile on a lot, and then there was a drag. 'Withdraw,' said Hardy quietly, and the faithful Peter obeyed the command of his chief. Later on the parcel was put up once more and Murray bid \$200 this time, followed by another pause. 'Withdraw' was again the word. Then for the third time the lot was put up and it was bid up to \$1,200 a mile and sold. But," said the gentleman who tells the story, "Hardy, by merely keeping his mouth shut, could have put \$10,000 in the pocket of one of the party's most faithful adherents and no one would have been any the wiser. That shows the scrupulous honesty even of one who has been known as the Wicked Partner of Oliver the Good."

* * * *

James Moiles is one of the firm of Moiles Bros., lumbermen, who have mills at St. John's Island, in the Georgian Bay district. Mr. Moiles has lumbered in Michigan, Wisconsin and Minnesota, the three great pine states of the American union, and consequently has had a considerable experience as a lumberman. He takes a serious view of the exportation of logs to the United States so far as the welfare of Canada is concerned. "Few people understand," says Mr. Moiles, "the extent to which the business of exporting logs from Canada has attained. While the export duties were in force Saginaw lumbermen were towing logs from the American side of Lake Superior as far west as Marquette and from Green Bay in Lake Michigan. These points are both further from Saginaw Bay than Georgian Bay is. The Menomee district on Green Bay is exhausted and Saginaw dealers are consequently obliged to look to Lake Superior and Canada for their supplies. The extent to which Canada is being drawn upon is shown by these figures: The Saginaw Lumber Co. is putting in over 20,000,000 feet in the Spanish river; Sibley & Beringer, 15,000,000; Spanish River Lumber Co., for Polson & Arnold, at Bay City, 17,000,000; Nelson, for his Cheboygan mill, 8,000,000; Park, Woods & Co., for Sauble, Mich., 15,000,000, and E. Hall, of Detroit, for his Bay City mill, 16,000,000. On the Mississaugua river, Gilchrist, of Alpena, has let contracts for 80,000,000 to stock his mill, and Howry & Sons will take out 25,000,000. On the French river and Wahapite there are heavy operators. The Emery Lumber Co. are taking out over 50,000,000 for Tawas and Bay City; Hurst & Fisher are going to get out all the logs they can this winter, and next summer they will take out over 50,000,000 feet; Captain Bliss will take from French river for his Saginaw mill 16,000,000, and the Moore Lumber Co. about 10,000,000. Further east, William Peters will take out 17,000,000, and Merrill & Ring about 12,000,000. All these figures represent the quantity of logs being taken from Canadian limits to furnish work for American mills. But even this is not all, as I have not included the large quantity taken out by Canadian jobbers for American dealers. A prominent operator told a Saginaw audience not long ago that they would make the waves of Lake Huron smooth by the enormous rafts of Canadian pine towed over them, and the figures given justify the boast. A conservative estimate places the export of logs for the coming season at 400,000,000 feet, and the business has only fairly started. Before the export duty on logs from Canada was removed by the Dominion Government Michigan mills were beginning to fall into decay, but since the removal of that duty new ones have been put up. Two have been erected at Bay City, one is in course of construction at Detour, Nelson Holland has bought property at Tawas for the purpose of building one there and the cut at Bay Mills, twelve miles from the Sault, has been largely increased."

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

LOG for the season is about completed, and it has been a successful season for our lumbermen. Interest now centres on the operations in the woods during the approaching winter. These will be on a considerable scale in this State, and so far as Michigan lumbermen are concerned the operations in the Canadian woods will be on a larger scale than any previous year. A very large number of logs will undoubtedly be rafted from Canadian to United States shores next season.

It cannot be said that our lumbermen captured as many timber limits at the Ontario Government sale, of Oct. 13, as had been expected. We must confess that prices ran high according to their notion of values, and they found Canadian lumbermen stronger competitive bidders than they had anticipated. Have we not this fact demonstrated that the supply of timber, even in the province of Ontario, is becoming beautifully less? We do not pretend to deny that this is the condition in Michigan.

BITS OF LUMBER.

The W. & A. McArthur mill, at Cheboygan, has finished operations for the season. The output was about 13,000,000 feet.

There was shipped from Cheboygan in September 15,725,000 feet of pine lumber, 300,000 feet of hardwood lumber, 6,226,000 pieces of lath, 1,200,000 shingles.

The statement is made that 300 Alpena woodsmen will put in work in the Georgian Bay district this winter for Albert Pack, who, as you know, was one of the largest purchasers at the Ontario Government sale of 13th inst.

Culler & Savidge, of Spring Lake, are owners of about 200,000,000 of pine stumpage along the Spanish river in Ontario, and will begin operating this season with one camp and will tow the logs to Cheboygan to be manufactured.

The labor market has seldom been in a better condition. The demand for experienced labor of all kinds for work in the woods is brisk, and an insufficient number of men are offering their services. Wages are ranging from \$18 to \$28.

Merrill, Ring and Co. have shipped a large cargo of lumber utensils to be used in their logging operations in your country. Among the stuff are forty logging sleighs made by a local manufacturer on which the duty of course will be a considerable item.

SAGINAW, Mich., Oct. 25, 1892.

PICA.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

MORE accurate figures of the output of lumber in the Ottawa district this season will be obtained a little later, but it is believed that these figures will not fall far short of 450,000,000 feet. One estimate given is as follows:

J. R. Booth.....	75,000,000
Bronson and Weston.....	45,000,000
Perley and Pattee.....	40,000,000
Buell, Orr and Hurdman.....	35,000,000
McClymont.....	13,500,000
W. Mason and Son.....	10,000,000
McLachlan Bros., Arnprior.....	45,000,000
Gilmour and Hughson, Ironsides.....	30,000,000
W. C. Edwards, Rockland.....	40,000,000
Gillies and Co., Braeside.....	16,000,000
J. McLaren, Buckingham.....	15,000,000
Pembroke Lumber Co.....	12,000,000
Canada Lumber Co., Carleton Place.....	25,000,000
R. & W. Conroy, Deschene.....	10,000,000
McCool Bros., Mattawa.....	8,000,000
McCracken and Co., Templeton.....	6,000,000
McLellan, Casselman.....	2,500,000

Total number of feet of lumber.....428,000,000

Nearly all the men have now been sent into the bush for the winter, and, in the opinion of a Chaudiere lumberman, these will count well on to 6,000.

A BRIGHT OUTLOOK.

A prominent local lumberman, who is credited with a hard, matter-of-fact method of viewing business affairs is authority for the following roseate view of lumber conditions. He said: "Some people will tell you the lumber business in Canada has seen its best days, but I know what I am talking about when I tell you the top of the hill has not yet been reached by a long way. Two years ago, when the California redwood pine boom broke out, things certainly looked pretty gloomy. They were able for a time to run cheap railroads into forests, build mills at the terminus, manufacture boards, load them on the cars and run them into New York almost as cheaply as we in Canada could get the logs to the mills. But the boom has run its course. It has been found that the red pine does not give the satisfaction, nor is it as suitable for several building purposes as Canadian pine. It is liable to warp, and for that reason is being discarded by those who have been the heaviest consumers. White pine has stood the test of ages, and once more

it is coming back into favor. Such is now the demand for it that if every stick at the Chaudiere was dry it could be disposed of at a moment's notice. Never in the history of lumber was white pine so much sought after. This is the result of the reaction. Another thing that is going to help the white pine trade in this district is the fact that for some time past the square timber trade between Britain and Canada has been dwindling. British buyers will now only take the very finest quality for their own sawing. The medium class that found such a ready sale a few years ago is now at a discount. Boards and planks, sawn this side, are taking the place of the poorer qualities of square timber. As a result of this, men in this district who have been holding limits exclusively for square timber have about decided to go into log making. I can't give you any details yet, but I believe it will not be long before one or more mills, besides Mr. Edwards' proposed new one at New Edinburgh will be built within three or four miles of Ottawa, to be run by steam. The parties are Ottawa men and there is plenty of money behind them. To my mind there is no doubt of the fact that the business will boom here next year and the mills will run night and day. Times are now good, lumber is in great demand and the demand will have to be filled." It may be remarked "en passant" that there are lumbermen in the district who do not hold with the view that the demand for white pine in California would affect in any way the Ottawa lumber trade. This view is enforced by the fact that Mr. Plummer, a Californian agent, is at the Russell trying to sell a district of limits, so far without any marked success.

INDIFFERENT LENGTHS.

Mr. W. C. Edwards, M.P., proposes to erect a large saw mill on the site of the old McLaren mill.

The McLaren limits on the Petawawa, fifty square miles, have been sold by Mr. G. C. Browne to the Pembroke Lumber Company.

Lumber shipping has been brisk during the month in anticipation of the increased winter rates which will come into effect on November 1.

Mr. J. R. Booth has confirmed the report that he had bought the Parry Sound Colonization Railway. This may be taken as an indication that the Ottawa, Arnprior and Parry Sound road will certainly be built.

The new mill for Gilmour and Hughson, on Hull Point, is being pushed ahead with great vigor. Building will be continued during the winter, and will, it is expected, be well advanced by next spring.

Messrs. McLaren and Co., of the New Edinburgh mills, are shipping from three to four hundred thousand feet of lumber a week to the American market. The firm is also shipping some very fine British Columbia shingles to the United States markets.

A large number of horses are being bought throughout the upper part of Carleton County by the Moore Lumber Co., to work for the winter on the limits of this concern up the Ottawa River. Shanty teamsters, supplying their own horses, are rather scarce this season.

The scarcity of men fit for work in the woods this fall has brought to the market a great array of boys, the great majority of whom come from the province of Quebec. Numbers of these lads may be seen any day around the Ottawa hotels. Judging from their appearance, although arrayed in big soft hats and long clay pipes, they are more fitted for the school room than the hardships of shanty and river life.

Cassels, registrar of the supreme court, has been appointed a commissioner to take evidence in an action which is now before the English courts, taken by the Bank of Montreal against William Tucker, J. F. Matthews and the executors of the estate of John Lloyd, Pierce and Co., formerly lumbermen at the Chaudiere, all of London, England, to recover £24,000, loaned by the bank. There is another action for £10,000 against J. F. Matthews, William Tucker and William McGavin. This is on guarantees given to the bank.

What has been known as the old Leamy limit at Kazabuse, Ottawa county, has been purchased by Mr. T. Rayotte and two others. This limit, which covers forty-nine square miles, formerly was part of the Egan property and includes mills and a slide. The timber on it has all been felled, but the land includes several unworked mineral lodes, which it is the intention of the new owners to develop. The price paid for the estate was \$7,000 cash. The new firm will conduct their business under the title of Rayotte and Co. It was on the slide on this estate that the late Mr. A. Leamey met his premature and accidental death.

OTTAWA, Oct. 27, 1892.

On the 7th ult. the saw mill and planing factory of Woodcock & Ramsden, Mount Albert, Ont., was destroyed by fire. Loss about \$4,500; insurance \$2,000.

PERSONAL.

The death of James Leverick, lumber merchant, Port Hope, Ont., is announced.

Edward Moore, eldest son of the late David Moore, has been appointed president and acting manager of the Moore Lumber Co., Ottawa, Ont.

The CANADA LUMBERMAN was pleased to receive a call during the month from Mr. Wm. S. Noss, representing Herman Noss, lumberman, York, Pa.

A dispatch has been received telling of the death of Mrs. J. S. Chamberlain at the residence of her husband in Burlington, Vt. Mr. Chamberlain was formerly with the Shepard, Morse Lumber Co., Ottawa, Ont.

Mr. A. Miscampbell, of Midland, Ont., member of the Local Legislature for Simcoe, and a well-known lumberman of the province, is retiring from politics and business to enter the ministry of the Presbyterian church.

Death has carried off, at the age of 72 years, Mrs. Andrew Leamey, relict of the late Andrew Leamey, a well-known lumberman of Ottawa. Deceased was the mother of thirteen children, and was first cousin of Alonzo Wright, the lumber king.

The name of W. B. Ives, the Quebec lumberman, member in the House of Commons for Sherbrooke, is mentioned as a possible minister in the reconstruction of the Dominion Cabinet now in progress. Mr. Ives, it will be remembered, was the mover at the last session of Parliament for the reimposition of the export duty on logs, and being defeated, afterwards built a mill on the American side to avoid the duty.

Cecilia Judge Ryan, who died at Ottawa a fortnight ago, was relict of the late Roderick Ryan, one of the pioneer lumbermen of the Ottawa. The late Mrs. Ryan, in days gone by, when she, with her husband, resided at Rockcliffe, particularly endeared herself to the old-time raftsmen of the Ottawa and Gatineau Rivers, who, when passing up or down these streams, had good reason to appreciate her motherly kindness.

Mr. W. H. Wilson, of Quebec, has crossed the Atlantic to become traveller and salesman for Fairey, Crockford and Co., British lumbermen. An English timber journal says: "Mr. Wilson has had a life-long experience in the Canadian trade, and is personally known to all the large importers of Quebec timber and deals throughout this country, besides having many friends in Ireland, all of whom will, we are sure, be glad to welcome him once again amongst them."

An old landmark of the town of Warkworth, Ont., has passed away in the person of Mr. Henry Hurl Humphries, who died on the 24th ult., at the age of eighty-nine years. The deceased was one of the pioneer lumbermen of Northumberland county. He was born at Brixton, near Warminster, Wiltshire, Eng., June 29, 1803. When a mere boy of fourteen he emigrated with his brother William to the State of Maine. He resided at the village of Skowhegan, in that State, for a number of years. He removed to Warkworth in the year 1829, and in 1846 made it his permanent home.

THE IDEAL MANAGER.

WE often find successful managers who are not, strictly speaking, practical mechanics; that is, they are men who have never served an apprenticeship to the trade, and are not experts in the use of tools, yet from years of experience in the office or otherwise they have become so familiar with the details of every part of the business as to be able to judge correctly of the quality and quantity of work that should be turned out by each workman as well as a practical workman. Such men may be properly termed theoretical mechanics, and, as a rule, they are men of superior executive ability and systematic in their management, so what they lack in practical mechanical skill is more than made up in executive ability and good management. Some of the most successful manufacturing establishments in the country are managed by men of this class. It is not to be understood that a practical knowledge of the business, or that the manager himself is an expert workman, is any detriment to the successful manager, provided he has the requisite executive ability to systematize and direct the work of a large force of men. Where we find a practical mechanic who possesses all these qualifications combined, we find the ideal manager. These ideas, advanced by a writer in the Mechanical News, contain considerable truth.

Trusdell's saw mill, Collingwood, Ont., was destroyed by fire on the 18th ult. The mill was worked by Nickerson Bros. Loss about \$3,500; no insurance.

THE NEWS.

ONTARIO.

—J. S. Clemens, lumber, etc., Preston, has assigned.

—The demand for lumber and shingles at Trenton is reported brisk.

—Dickenson Bros. are preparing to erect a new mill at Staples.

—T. A. Hodgson, planing mill, Ottawa, has assigned to P. Larmouth.

—J. Y. Rochester, lumber dealer, Mattawa, has assigned to A. G. Browning.

—The Pembroke Lumber Co. have bought the McClymont mills on the Petawawa.

—A new lumber company has been incorporated at Huntsville with a capital of \$42,000.

—Mickle, Dyment & Son's new shingle mill at Severn Bridge is about ready for operation.

—A stick of timber measuring 3,200 feet passed by Tilbury Centre a few days ago enroute for Detroit.

—Smith and Clark, planing mill, Tilbury Centre, have dissolved partnership. The business will be continued by R. H. Smith.

—Mariott & Lefevre, lumber, Fort William, have assigned. They came from Ottawa and have only been in business about five months.

—R. A. Gordon, late of London, has commenced the manufacture of broom handles at Thamesville. They will be for direct export to England.

—The Hawkesbury Lumber Co., Hawkesbury, are making large purchases of horses for the winter's work. An average price of \$275 a span is being paid.

—Messrs. Gilmour and Co., of Trenton, are receiving the congratulations of the local press for their enterprise and pluck in securing large purchases of limits at the recent Government sale.

—The extensive limits of Messrs. Thistle, Francis and Carswell, on the Petawawa River, have been purchased by the Hawkesbury Lumber Co. It is expected that the new owners will operate the limits during the coming winter.

—C. H. Brown, manager of the saw mill at Rodney owned by Mrs. Anne Fletcher, of Woodstock, was charged before the local magistrate with selling 6,015 feet of chestnut lumber and appropriating the proceeds. After hearing the evidence the charge was dismissed.

—Huntsville people are pleased at the fact that Messrs. Heath, Tait and Turnbull secured two extensive timber limits at the recent Ontario Government's sale in Toronto, for which they paid \$98,000. The firm is thinking of erecting another mill in order to handle the lumber.

—A large raft of pine timber which went to pieces east of the Rondeau Point about two weeks ago has been scattered all over the shores of Lake Erie. Seven thousand logs have been harbored at Erie, Pennsylvania. Captain Ellison, of Port Stanley, has been busily engaged in the same work with the steamer Joe Milton, and has secured a large number.

—The Keewatin Lumber Co. are beginning work on Tunnel Island, preparatory to their scheme for the utilization of the vast water power of Winnipeg River. The company will expend \$350,000 on the island and adjacent mainland during the next two years, with the expectation of making Rat Portage one of the most important manufacturing centres in the Dominion.

—It is claimed that Bearinger and Sibley's big raft of 8,000,000 feet, taken care of on Lake Huron during the north-east gale recently, by the tugs Sea Gull, Smith and Parker, is the record tow of the lakes, and if loaded on large, full rigged ocean ships, would take about nine of them to carry it. This represents the greatest economy of floating transportation, only possible on large sheets of protected waterways like the lakes afford.

—Mr. S. F. Washington, acting for the lumber firm of Bradley, Morris and Reid, of Hamilton, has obtained an interim injunction from Judge Muir, restraining Wm. Young, of Warton, from selling or otherwise disposing of 300,000 feet of lumber which Young had contracted to sell to the Hamilton firm at \$11 a thousand feet. Young, after signing the contract, it was stated, had refused to supply the lumber, and was selling it to others, while Messrs. Bradley, Morris and Reid, having depended upon the defendant for their supply, could not fill their contracts.

—Scott & Cross, builders and lumber dealers, Toronto, have assigned. The liabilities are \$9,496, and the assets show an apparent surplus of nearly \$500. The creditors, all of Toronto, are as follows: James Tennant & Co., \$4,856; Ontario Lum-

ber Co., \$968; Tennant & Co. (Quebec Bank), \$561; J. & A. Bertram, \$854; R. Laidlaw & Co., \$439; Donogh & Oliver, \$350; S. J. Wilson Co., \$248; Cobban Manufacturing Co., \$227; Utterson Lumber Co., \$226; Gall & Co., \$167; Gallo-way, Taylor & Co., \$137; Dominion Bank, \$185; D. C. McLean, \$94; Reid & Eyre, \$69; H. Williams and Co., \$89; R. Thomson and Co., \$20. Indirect—Dominion Bank paper under discount, secured by second mortgage on houses on Manning Avenue, \$746.

—The Pembroke Lumber Co. have made a considerable shipment of sample trees grown in the district for the World's Fair. There are six samples in all and they are each four feet long, with the following circumference at the butt: White Pine, 22 inches; Tamarac, 22½ inches; Balsam, 15 inches; Red Pine, 29 inches; Ash, 18 inches; spruce, 21 inches. The height of the trees, with their circumference at the stump, from which these samples were taken were as follows: White Pine, 90 feet high, 22 inch at stump; Tamarac, 98 feet high, 26 inch at stump; Balsam, 74 feet high, 18 inch at stump; Red Pine, 102 feet high, 30 inch at stump; Ash 114 feet high, 23 inch at stump; Spruce, 105 feet high, 22 inch at stump. The trees were all in the Petawawa limits of the Pembroke Lumber Co. and the samples are all perfect, and will no doubt form a prominent feature in the lumberman's section of the Canadian exhibit.

—The following is the agreement signed by the gangs of lumbermen engaged by Mr. T. Cavanagh, of Ottawa, and placed at work at Sault Ste. Marie and other points: "We, the undersigned, do hereby engage to labor for and faithfully serve, in the capacities and at the rate of wages as set opposite our respective names, and drive raft, and go to market on said timber or logs next season. And we represent and say that we understand and are capable of doing the said description of work as specified, and bind ourselves to do the same in a workmanlike manner. We further agree to forfeit all wages if we leave the employ before expiration of agreement without just cause, or the consent of our employer or foreman; and further, if found not working faithfully, we are liable to be discharged and wages rated in accordance with work performed, and settled with by due bill, payable on the arrival of timber or logs in market."

—The season of 1892, says the Pembroke Observer, has broken some records and developed some new methods of doing things. The drives have been unusually late in coming out of the small streams, and those in charge have had to hustle and take advantage of everything that could be thought of, and we have no doubt the experience gained will be profitable in time to come. In consequence of this lateness the square timber men had to meet very unusual conditions on the Ottawa itself, so much so that entirely new methods of getting along had to be adopted in some instances. The first of these was when Captain Dunbar, of the steamer Alex. Fraser, successfully towed a raft owned by Messrs. R. H. Klock and Co. through the Petawawa Narrows, a feat heretofore considered well-nigh impossible. The raft was in charge of Mr. William Wade, the well-known pilot, and he thinks Captain Dunbar's feat a highly creditable and important one. The next experiment was tried by Mr. Alick McDonald, another well-known pilot. He found the water very low at Grenville, and instead of running the usual channel took his raft through the canal at that place. This novel idea of treating his cribs as vessels proved highly successful, saving both time and money, notwithstanding that he doubtless paid the usual lockage fees. We agree with our informant that it is a cold day when an Ottawa riverman is not able to see his way out of a difficulty.

QUEBEC.

—The Tourville Lumber Mills Co. has been incorporated at Tourville, Que., with a capital stock of \$250,000 to operate lumber mills, cut timber, etc.

—King Bros. and Co., lumbermen, Liverpool and Quebec, have transferred the Liverpool branch of their business to their nephew, Mr. Charles Stuart King, who will carry it on under the same title as before.

—J. H. Clint, of Quebec, is in embarrassed circumstances, owing to having made large advances to Alex. Fraser and Co., of the same city, recently suspended, and now compromising at twenty cents. It is expected he will be able to make a favorable settlement.

—A timber deal of considerable magnitude has been consummated in Montreal. A syndicate composed of Messrs. William Mitchell (of Messrs. Church, Mitchell and Fee), David Mitchell, Joseph Patrick, George H. Church and Vivian Burrell have purchased forty thousand acres of spruce, hemlock and pine limits in the counties of Nicolet and Arthabaska, from the estate of Hall and Pierce. The price has not transpired, but it is reported to be very large. It is said to be the intention of the new owners to build a branch line of railway to bring the timber district into communication with either the

Dominion Counties railway or with the Grand Trunk at Arthabaskaville. The syndicate contemplate the erection of large mills, and the immediate operation of the newly-acquired limits. This is the biggest timber deal in the eastern part of the province for a long period.

NEW BRUNSWICK AND NOVA SCOTIA.

—J. B. Leslie, lumber dealer, Dalhousie, N.S., has assigned to E. L. Fisher.

—Thomas Bently, a sparmaker, of Halifax, N.S., is importing, it is said, Oregon pine for masts. Hitherto white pine has been used, but Oregon is called for by Bently's customers.

MANITOBA AND THE NORTHWEST.

—Mr. Thomas Haywood, of Orillia, who recently met Mr. Daniel Sprague, formerly of that town, in Winnipeg, says Mr. Sprague is doing well. He has a large mill and finds a profitable home market for his lumber.

—G. H. Brown and Co., lumber, Winnipeg, have been in financial difficulties for some time and several writs have been issued against them. The firm is now endeavoring to settle at fifty cents on the dollar. The partners are George H. Brown and H. Sarrasin, both at one time connected with the defunct Manitoba Lumber and Fuel Co.

BRITISH COLUMBIA.

—Webster and Edmonds intend manufacturing pails and tubs at their mill on False Creek.

—Rolfé and Goepel will erect a saw mill at Fredericton, West Kootenay district. The machinery is on the way.

—The mills of the Upper Columbia Navigation and Tramway Company at Golden are turning out 18,000 feet of lumber a day. So far this year about 1,500,000 feet of lumber has been prepared for the market.

—A timber limit at Hemming Bay, operated by the Hastings mill, is not without some peculiarities. It is situated one and a half miles from salt water and the logs are conveyed by means of ox teams and a chute a quarter of a mile long. There is over 100,000,000 feet of first-class timber on the limit.

—The Norwegian barque Benjamin Bangs, 1,118 tons, Capt. Bjornnes, now lying in Vancouver harbor under charter to load lumber at the Hastings mill, will probably load for Montreal. This will be the first cargo shipped round the Horn to eastern Canada from this mill, and her cargo will consist of large timber too big to be conveyed by rail.

GENERAL.

The car scarcity is still heard in the small towns along Puget Sound. The Great Northern and Canadian Pacific are not hauling any lumber or shingles eastward on account of the moving grain crop.

—Only a few of the large lumber firms on the Saginaw river will operate on the Tittabawassee and tributaries the coming winter, and it is estimated that not to exceed 150,000,000 feet will be rafted out next season, while some estimates are as low as 100,000,000.

—Two giant fir trees in Roseneath woods are said to be the largest of their kind in the world. They were, we learn from a Glasgow paper, carefully measured recently by Mr. William Leiper, A.R.S.A., and Mr. John Bruce, a Helensburgh archæologist, and their age was found to be between 250 and 300 years. They were first measured by an authority in 1817, and since that year they have increased in girth from seventeen to twenty-two feet.

—Not for some years has there been as much activity in the rafting business on the Mississippi river as this season. Both logs and lumber fleets are a frequent sight, and an innovation in the shape of lumber barges from La Crosse or above to lower points has been inaugurated. It is no uncommon thing for five or six rafts a day to leave Stillwater. Still, down the river, lumbermen are not satisfied, and complain that they cannot get as much lumber as they want and need.

—Six dollars and twenty-five cents a thousand for pine timber on the stump in Minnesota is a pretty high figure, but it is the price paid the other day in St. Paul at a sale by the state. It is the highest figure yet recorded for Minnesota timber, and may not soon again be equalled. It was for a section of land and must have been of exceptional quality and unusually well located. Still it indicates that what has been true of Michigan and later of Wisconsin will be repeated in Minnesota.

—The largest piece of white oak probably that was ever sawed to order and shipped to New York, is stated by the Recorder to have been thirty inches square and fifty feet long, and measured 3,750 feet, board measure. It weighed 22,500 pounds, railroad standard weight for green oak timber. The tree measured over three and one-half feet in diameter fifty feet from the ground. Another piece was also received at the same time which was twenty-four by twenty inches and sixty feet long. The two pieces made 6,150 feet, and were all that was shipped in two cars which came from Ohio.

TIMBER WEALTH OF BRITISH COLUMBIA.

BRITISH Columbia has long been famed for its magnificent scenery of mountain and river. Who has not heard of Mount Hooker, a part of the world-famed Rocky Mountains, which in this province reach their highest point, 16,760 feet, with Mount Brown at 16,000 feet and Mount Murchison 15,700 feet, while there are others of nearly the same height. The Fraser river with its many remarkable windings, and the Columbia river, over 1,200 miles in length, flowing finally into the Pacific Ocean, are points of interest not quickly forgotten by the student of history and certainly not by those whose privilege it has been to visit this picturesque corner of the Dominion and view for themselves these strange sights.

But British Columbia, we opine, has acquired greater fame by reason of its wonderful timbers than through any other condition, physical or climatical. Canada's popular elocutionist, Jessie Alexander, has sung its praises, telling how she one day, along with some friends, stood in admiration viewing one of the big trees of Vancouver in which were located six gentlemen waiting to be photographed. Four were mounted, and the others were in a carriage. "The huge tree," Miss Alexander says, "contained horses, vehicles and men, and yet there was room for our party."

A country on which nature has bestowed such wealth of attractions can live no hermetical existence, and as the Niagara Falls of our own province is sought for by travellers near and far, so we can understand that few take a journey on our national highway, the Canadian Pacific, without striving to go its full length and include a visit to the Coast.

As Canadians, however, we consider this Coast province with admiration not only from an esthetic side, but as business people, from a strong utilitarian point of view. The wealth of its mineral and forest resources must bring wealth to our country as a whole. Are we not one united Dominion? The prosperity of each individual part is the prosperity of the whole. Especially the lumbermen of Ontario are interested in British Columbia's progress, for where better, as our Ontario forests become denuded, can they look, for safer investments, with larger possibilities in the investment, than in this corner of the Dominion? The truth is that a large amount of Ontario capital is already placed in the lumber business in that country. We are knit together now by a mutual interest. Few finer and more extensive saw mills are found anywhere than those of the McLaren-Ross Lumber Co., at New Westminster and Barnet, which have been erected chiefly with Ontario capital. Our news columns of the past few months have recorded the incorporation of the Toronto and British Columbia Lumber Co., with a capital of \$1,000,000, and which is composed almost entirely of capitalists of Toronto and neighbourhood, several prominent lumbermen from Barrie being interested. The managing men in many mills of the province in not a few instances hail from Ontario, and in the manufacture of Ontario's timber obtained the skill and experience that had made their services sought for elsewhere. And experience is a necessity with any workman who undertakes to handle the fine timbers that are grown on the Pacific Coast. It is here that Douglas Fir is found, celebrated for its strength and straightness. It frequently grows over 300 feet high, and has squared forty-five inches for a length of ninety feet. Practically these timbers find no competitor either in our own country or across the border, evidenced in the fact that a growing trade is found for them in California and other points of the United States where Oregon pine had hitherto held the market. Red cedar is fast acquiring a strong position as a commercial wood both at home and abroad. It grows to a large size and is frequently found 200 feet in height and twenty feet in diameter. For inside finish it takes a beautiful polish, and many of the most palatial residences in this section of the Dominion and elsewhere, as well as in the eastern States, are finished in British Columbia red cedar. Not the least essential qualification is its durability, causing it to be largely used in the manufacture of doors and sashes. Only two months ago we gave an account in these columns of the phenomenal growth of the trade in red cedar shingles. This wood would appear to be "par excellence" the material for shingles.

In less than a year the trade in red shingles on the Coast has increased more than 200 per cent., and large quantities of these are coming into Ontario and Quebec. The durability of the red cedar for shingles is its greatest recommendation, cases being cited of shingles that have shown little appearance of wear though in use for a score of years and more.

An obstacle to an extension of trade in the east has been the high rates of freight charged by the Canadian Pacific, but it is anticipated that the new railway, in connection with the Northern Pacific, about to be built, will have the effect of materially reducing freights east. A correspondent of the Monetary Times, writing on this point, has recently said: "Given satisfactory freights, the lumber trade of this province must grow to gigantic proportion, as British Columbia woods are superior to any in the world."

British Columbia relies for her lumber trade in a large measure on the export to foreign countries. The financial depression, which has overshadowed South America for the past two years, is fortunately disappearing, and this is an important field for British Columbia lumber. Naturally the people of the coast are anxious for the completion of the Nicaragua Canal. To-day the journey from Victoria to Great Britain is about 16,000 miles. The consequences of a change to probably 8,000 miles would be so far-reaching in results that it is difficult to imagine the impetus this measure would necessarily give to commerce on the coast, and especially to the lumber trade. A lumber journal of Melbourne, Australia, from which we quoted last month, has intimated the boon it will be to the people of these colonies when they can receive their lumber from British Columbia via the projected canal in place of, as now, by the circuitous route around Cape Horn. British Columbia has an increased interest in Australian lumber trade at the present because of recent retaliatory legislation against the United States which practically shuts out Oregon pine, and, conversely, enlarges the field for Douglas Fir.

The provincial Legislature of British Columbia has, by a recent order-in-council, decreed that all sales of timber by the Government shall in future be conducted by public competition on lines similar to those adopted by the Ontario Government. This step may be taken as an evidence of the value placed by the province on its timber resources and the necessity to conserve this wealth to the province.

MICHIGAN STUMPAGE.

THE following figures taken from the annual review of the Saginaw Board of Trade will be interesting as showing the steady increase in the value of pine stumpage in Michigan since the year 1880 inclusive. The figures are taken from the reviews of 1886 and 1891, which are all we have before us. The former gives the prices of stumpage for a number of years previous as follows: 1880, \$2.75 to \$3; 1881, \$3 to \$4; 1882, \$3.50 to \$4.50; 1883, \$4 to \$5; 1884, \$4 to \$5; 1885, \$4.50 to \$5.50. and adds: "The foregoing does not cover the extreme ranges of values in all cases but is a fair average of ruling prices." Speaking for the then current year, 1886, it says: "It is estimated that a fair range of values for the year was \$4.50 to \$6.50 per 1,000 feet. The review for 1891 says: "Stumpage is held at \$4.50 to \$8 per 1,000. There has been a large amount of trading in small patches of hemlock and stump lands."

TRADE NOTES.

Exceedingly satisfactory work is being accomplished by the Waterous No. 2 band saw recently placed in Conroy's mill, Deschenes, Que. They started their mill about three months ago and have averaged over 40,000 feet per day. They have only had six saws, and have never broken a saw or lost ten minutes with the band mill. Two saws only parted in the braise, no breaks. In Booth's large mill, we understand, they averaged twenty brazes per saw this season. In Hurdman's they started with sixteen saws about the same time Conroy started, and they have had to order six more saws, the first lot having all gone to pieces, and the mill shut down waiting for saws. Points like these are worthy of the consideration of Canadian lumbermen before they buy American band mills.

The Dodge Wood Split Pulley Co., of Toronto, have recently supplied and erected in running order three of their patent rope drives for the E. B. Eddy Co., of Hull. These drives cut a very interesting figure in the question of transmis-

sion of large powers, each drive having a capacity of 500 h.p. and performing the work with such apparent ease, being almost silent, very steady, positive, and without noticeable strain on the ropes, making the job on the whole the pride of the genial superintendent of the big paper mills. The pulleys used are all cast iron, grooved, and the skilful arrangement of the carriages for tightners, and erection of the drives entire, reflect much credit on the Dodge Company and their staff as experts in this line. It might be in order to mention that the rope drives, with 24 wraps of 1¼-inch rope each, replaced 50-inch extra heavy belts in each case, and performed just double the work on the grinders that was accomplished by the belts, thus illustrating that large belts, like many other things, are only "all right in their proper place."

Readers will notice that this issue we commence the professional card of Mr. W. J. Graham, patent attorney, 71 Yonge street, who appreciates the importance of LUMBERMAN readers as composing one of the prime industrial factors of Canada. Mr. Graham has been established in business since July, 1889, in Toronto, having commenced at the above address and date as Graham & Riches, but after a short time the latter retired and Mr. Graham has since carried on business without even the assistance of the nominal "& Co." so prevalent among his profession. His knowledge of patents has been principally obtained when in the employ of a few reliable and first-class American firms in New York and Milwaukee, which very probably accounts for the fact that he is the only practitioner in Toronto conducting business direct with the U.S. Patent Office. He also states that notwithstanding what others may claim as engineers, experts, etc., he is the only practitioner in Toronto who has the advantages of an engineering education and has been practically engaged in field and office work.

The Cant Bros. Co., of Galt, have just brought out a band saw re-saw, which is, as far as we know, a new departure in Canadian wood-working manufacture. It is specially adapted to heavy work, such as carriage, coach, wagon and agricultural implement makers, and also for planing mills, etc. It will carry a saw 2¼ inches wide, and will saw to the centre of 8 inches. The frame is cast in one massive upright piece, with a rectangular cored section having a large base, thus securing a substantial floor support. The wheels have cast iron arms with wooden rim, and the face of the wheels is covered with rubber firmly cemented to rim. The wheels are 42 inches in diameter and have a 3-inch face. The upper wheel has a vertical adjustment to take different lengths of saws, and can also be angled to lead saw in any path while the machine is in motion. It is raised or lowered by means of a hand wheel and screw. The lower wheel is kept free from accumulations of sawdust by a brush. The table is of iron. The feed is effected by four 4-inch heavily-gear rollers, all power-driven. One side of the double feed rolls is stationary, while the other side is yielding to allow for inequalities in the lumber. The operator can cut a slab ¼ to ½ inch thick off a board up to 4 inches thick. The feed works are driven by belts at rear of machine. The works are also provided with a clutch, controlled by a lever, by which the feed works can be stopped and started at any time without stopping the machine. For sawing bevel-siding the table is simply tilted by a hand wheel. The feed works will expand to take in a plank 8 inches thick and any width up to 24 inches.

COMING SALES.

The sale of timber limits, saw mill and lumbering plant of Mossom Boyd & Co., to take place at The Mart, Toronto, on Wednesday, 23rd inst., will be one of the most important sales of individual limits held in the province for some years.

Our advertising columns contain an important announcement giving particulars in detail of an extensive sale of Crown timber limits in the province of Quebec on December 15. There are in all about 160 limits to be disposed of, ranging in size from four to fifty square miles, but averaging about twenty-five square miles. They lie in the agencies of Upper Ottawa, St. Maurice, Lake St. John, Saguenay, Montmagny, Grandville, Rimouski, Gaspé and Bonaventure.

LUMBER CASUALTIES.

A lad named Edward White, aged fifteen, lost his life in the shingle mill of O. F. Stacey, Bathurst, N.B., through having his coat caught in the belting.

Medas Blais, an Ottawa youth in the employ of the Hawkesbury Lumber Co., at their limits on the DesMoines River, was chopping a tree when it fell on him, causing instant death.

William McRae, while adjusting a belt at the saw mill at Longford, Ont., had his shirt sleeve caught by the shaft and his arm twisted off by the elbow.

A young man named Herriman, along with two companions, was drowned near Manitoulin Island, Ont., a fortnight ago. Deceased was a son of Dr. Herriman, of Lindsay, and a brother of H. R. Herriman, lumberman, of Little Current.

TRADE REVIEW.

Office of CANADA LUMBERMAN, }
October 31, 1892. }
THE GENERAL SURVEY.

SO far as Canada is concerned the lumber situation is, on the whole, encouraging. In Ontario it has not been in a more healthful condition for some years. There are spots of weakness, perhaps, in localities. Business continues dull in Toronto, and several failures during the month, though not of any great magnitude, have been sufficient to perpetuate the want of confidence spirit that has been the bane of local trade for some time back. Trade in country districts is picking up a little now that the grain is being marketed, and may be expected to improve as the season advances. But the general lumber trade of the province is brisk.

The prices obtained at the Ontario timber sale of the 13th ult. is the big subject of talk among dealers wherever you meet them. It cannot be said that all view the matter in its various details in the same light, and yet everyone agrees that, shorn of debatable points, the sale foretells a bright lumber outlook for another season. Immediate activity is centered on the work in the woods and the ring of the woodman's axe will certainly resound with enlarged tones in the Canadian bush this winter.

Shipping returns from Quebec give evidence of improvement of the lumber trade in that province, where it has for some years been distressingly dull. Word comes to us from New Brunswick that the volume of trade has increased over last year, but one large shipper is authority for the statement that profits are infinitesimally small. A correspondent writes from British Columbia that business there is in good shape. The combine formed among mills on the Mainland to keep up prices has been dissolved, but it is not anticipated that much cutting in prices will ensue.

The lumber year draws to a close in the United States leaving a satisfactory record behind and a hopeful outlook for another season. Pine has led the trade of the year and is likely to do so another season. Prices have been stiffening almost from month to month, with the demand in many parts greater than the supply. Reports from the hardwood trade are generally gratifying. Hardwood says: "Boston is just in the midst of the usual fall rush, and is doing a very satisfactory business. Buffalo is about as lively a market on both sides as can be found. New York still improves. Baltimore is doing a really good fall trade, with some prospect that it will continue well into the winter. Philadelphia is fairly well to the front, and the year's business there will undoubtedly surprise some of the croakers who are always complaining of dull trade."

Foreign trade is in an indifferent state. Reports of a revival in South America are received, though it will be of slow growth. Australian conditions continue quick. Denny, Mott & Dickson, in their wood circular of October, summarize the British situation in these words: "There has been a slight improvement in general business during the last month, which has sufficed to produce an expectancy of a general improvement in consumption for the remaining quarter of the year. Some amelioration of the present general stagnation would be very welcome, but it is difficult to see from what direction any decided movement for the better is to come, whilst the recent building society troubles seem to make the prospects of one branch of the trade less hopeful than before."

TORONTO, ONT.

TORONTO, October 31, 1892.
CAR OR CARGO LOTS.

Table listing lumber prices in Toronto, Ontario, for October 31, 1892. Includes items like 1 1/4 in. cut up and better, 1X10 and 12 dressing and better, etc.

YARD QUOTATIONS. F. M.
Mill cull boards and scantling \$10 00
Shipping cull boards, promiscuous widths . . . 13 00
stocks . . . 14 00
Scantling and joist, up to 16 ft 13 50
" " " 18 ft 15 00
" " " 20 ft 16 00
" " " 22 ft 17 00
" " " 24 ft 19 00
" " " 26 ft 20 00
" " " 28 ft 22 00
" " " 30 ft 24 00
" " " 32 ft 27 00
" " " 34 ft 29 50
" " " 36 ft 31 50
" " " 38 ft 33 00
" " " 40 to 44 ft 37 00
Cutting up planks, 1 and thicker, dry . 25 00 28 00
" " hoard 18 00 24 00
Dressing blocks . . . 16 00 20 00
Picks Am. inspection. 30 00

OTTAWA, ONT.

OTTAWA, October 31, 1892.

Table listing lumber prices in Ottawa, Ontario, for October 31, 1892. Includes items like Pine, good sidings, per M feet, b.m., Pine, good shorts, etc.

MONTREAL, QUE.

MONTREAL, October 31, 1892.

Table listing lumber prices in Montreal, Quebec, for October 31, 1892. Includes items like Pine, 1st qual., per M \$35 00, Oak, Walnut, etc.

BOSTON, MASS.

BOSTON, Mass., Oct. 31.—A fair trade is doing. Spruce about holds its own.

Table listing lumber prices in Boston, Massachusetts, for October 31, 1892. Includes sections for Eastern Pine-Cargo or Car Load, Western Pine-By Car Load, and Spruce-By Cargo.

OSWEGO, N.Y.

OSWEGO, N.Y., Oct. 31.—Trade is brisk and prices firm. Stocks of pine and hardwood are fair.

Table listing lumber prices in Oswego, New York, for October 31, 1892. Includes sections for White Pine, Sidings, and various inch and foot lumber.

SHINGLES.
XXX, 18 in. pine . . . 3 70
Clear butts, pine, 18 in. . 2 70
XXX, 16 in. pine . . . 3 00
Stock cedars, 5 or 6 in. . 4 50
No. 1, 1 1/4 2 40
No. 1, 1 in. 1 80

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Oct. 31.—The month closes in lumber with an improved tone and prices somewhat stiffer. The demand is brisk for all grades of lumber.

Table listing lumber prices in Buffalo and Tonawanda, New York, for October 31, 1892. Includes sections for White Pine and various sizes of lumber.

Table listing lumber prices in Buffalo and Tonawanda, New York, for October 31, 1892. Includes sections for Shingles and various sizes of lumber.

ALBANY, N.Y.

ALBANY, N.Y., Oct. 31.—The month has been a busy one, receipts of lumber running into large figures. A busy time is anticipated until the close of navigation.

Table listing lumber prices in Albany, New York, for October 31, 1892. Includes sections for Pine, Shingles, and various sizes of lumber.

SAGINAW, MICH.

SAGINAW, Mich., Oct. 31.—Dealers are busy getting in shape for the closing in of winter. White pine is scarce and the prices which follow show a slight increase over figures of a month ago.

Table listing lumber prices in Saginaw, Michigan, for October 31, 1892. Includes sections for Finishing Lumber-Rough, Sidings, and various sizes of lumber.

NEW YORK CITY.

NEW YORK, October 31.—The lumber market at this point does not possess any remarkable features at the present time. Trade cannot be called dull, and yet it is far from brisk. White pine is in good demand.

Table listing lumber prices in New York City, for October 31, 1892. Includes sections for White Pine-Western Grades and various sizes of lumber.

A Good Independent CONDENSER

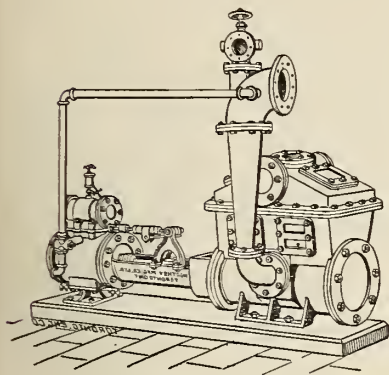
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IF YOU ARE WORKING YOUR
ENGINE HIGH PRESSURE

DON'T DELAY, BUT WRITE US PROMPTLY

NORTHEY MFG. CO., Ltd.

MANUFACTURERS . . .

TORONTO, ONT.



OUR INDEPENDENT CONDENSER

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Scheil & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Steam, Circular, 16m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	Stm., Band, Cir., S. 75m, Sh. 60m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	
Waubushene, Ont.	Waubushene	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Pine only.	Waubushene mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glammis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Howry, J. W. & Sons.	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Exp. and dir. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol. Cherry, White Ash, Hardwoods, Wholesale	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 40m
Norman, Ont.	Norman	Cameron & Kennedy	Lumber, Wholesale and Retail	
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m.
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. M. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakey, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hwds., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Pils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin. Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin. Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

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The Montreal Car Wheel Co.

.... MANUFACTURERS OF

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

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OAK TANNED BELTING

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THE J.C.McLAREN BELTING CO

MONTREAL

The
BAND MILL

is to the Lumberman
of to-day

AN ABSOLUTE NECESSITY

Few Millers wanted to change, but all have
had to change to the Roller System. Those
who changed first made the largest profit.

What the
ROLLER PROCESS
was to the Miller of
10 years ago

The change to the Band Mill decided on, where can the best mill be secured? We say:
"None surpass the Waterous."

In a Band Mill the prime requisites are:

Rigidity, to overcome the great tendency to vibration.

Strength, to withstand the strain of a 28 to 30 inch feed to the revolution.

Properly-proportioned Wheels, to permit high foot speed to saw and at same time to make perfect
lumber. To save saws from breaking.

Short Saws, without decreasing diameter of wheels, bringing the cut near the upper wheel where saw is least
effected by the thrust of log. This is accomplished by reducing space between wheels.

Sensitive Tension, prevents over-straining of saws.

"None surpass the Waterous." It combines these features in the
greatest degree.

Six heavy steel standards connect the upper and lower castings, spreading the strain over a large area, ensuring perfect rigidity
and ample strength.

Wheels properly proportioned, no overthrow and no breaking of saws from this cause and seldom from any other with our
mills.

12-inch space between wheels, as against 36 to 48 in the best American mills, saving 8 to 10 feet of saw at \$2.75 per foot, and
permitting a much more rapid cut.

WE GUARANTEE ITS QUANTITY AND QUALITY OF CUT TO EQUAL ANY MILL
BUILT, WITH LESS DETENTION FOR ADJUSTMENT OR REPAIRS.

These points conceded, and the responsibility of our guarantee ascertained,

Why go to the States
for your Band Mills?

We do not suggest repairs. (None to our No. 2 mills this season.) Should they happen, however, think how much more
easily obtained and less expensive from us than from distant American works. We are told one Canadian lumberman
paid over \$2,000 this season on repairs for his American band mills. Forty per cent. of this would no doubt be duty
and transportation charges.

You run no risk ordering a Waterous Band Mill.

We employ one of the best American bandsaw experts, who is always at the service of our customers. His instructions to purchasers of our mills or their sawyers
have enabled them to run satisfactorily without hiring expensive men.

Order your mills early and avoid disappointment in the spring.

Waterous Engine Works Co., Brantford, Can.

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We have the most complete establishment in Canada, and by our different processes are enabled to make cuts for every and all purposes.

HALF-TONE CUTS made direct from photos our specialty.

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Send for Catalogue and Prices.

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FLINT & PERE MARQUETTE RAILROAD

FROM

Port Huron and Detroit

Is the Short Line to

SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)

MT. PLEASANT, CLARE, REED CITY

BALDWIN, LUDINGTON, MANISTEE

AND

MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from

NEW YORK BUFFALO MONTREAL TORONTO

to ST. PAUL, DULUTH and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and a great deal of information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., W. F. POTTER,
General Manager. Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

GENERAL OFFICES: SAGINAW, MICH.

C.A. LARKIN

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WHOLESALE MFR TORONTO, (CAN.)

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DOORS & GLAZED WINDOWS

NORTH SHORE NAVIGATION CO.

ROYAL MAIL LINE

To Sault Ste. Marie and Georgian Bay Ports

STRS. CITY OF MIDLAND, CITY OF LONDON, FAVORITE AND MANITOU

Running in connection with the G.T.R. and C.P.R., will sail as follows:—

The CITY OF MIDLAND and CITY OF LONDON will leave Collingwood every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same days at 10.30 p.m. after arrival of C.P.R. train from Toronto, connecting at Warton with night train from the south, and calling at intermediate ports to Sault Ste. Marie.

Steamer FAVORITE will leave Collingwood Mondays and Thursdays after arrival of morning trains for Parry Sound, Byng Inlet, French River and Killarney, connecting there with above line of steamers for the "800." Returning will make close connection at Midland on Wednesdays and Saturdays with trains for the south and steamer MANITOU for Parry Sound.

Steamer MANITOU will make regular trips from Penetanguishene, connecting with trains from the north, only at Midland on Monday, Wednesday, Thursday and Saturday for Parry Sound, connecting there with Steamer FAVORITE for Byng Inlet, French River and Killarney, where connection is made with above "800" line of steamers.

For tickets and further information apply to any agents G.T.R. or C.P.R., or to

C. E. STEPHENS, W. J. SHEPPARD,
Sec. Treas., Collingwood Manager, Waubaushene

A GREAT LOSS!

If you have any Pipes or Boilers uncovered you are losing on same at the rate of 80 cents every year on each square foot of surface exposed. By having them covered with our MINERAL WOOL SECTIONAL COVERING you will save 85 per cent. of this loss. The saving thus effected in fuel will in one year more than pay the cost of covering, which we guarantee to last as long as the pipes. Our covering is the best fuel saver on the market.

CANADIAN MINERAL WOOL CO., LTD., 122 Bay St., Toronto

PETER GERLACH & Co.

MANUFACTURERS OF



THE ALLIGATOR CHISEL-BIT SAW.

ALLIGATOR CHISEL-BIT SAWS

THE CHAMPION STAVE, HEADING AND SHINGLE MACHINES
ICE TOOLS AND MILL SUPPLIES

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USE SPOONERS HONOR BRIGHT

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BEST MACHINERY BOX-METAL EXTANT.
CANADIAN MADE & STUMPS THE WORLD.
QUALITIES TO DO ALL YOUR WORK.
HARDWARES ALL YOUR WORK.
COOL BEARINGS TO HOT SHOES.
EASY AS AN OLD SHOE.
GENUINE SAFEGUARD FOR ENGINEERS.
HIGH CLASS METAL

Rochester Bros.

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Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

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ILLUSTRATED CATALOGUE FREE

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Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.
Every description of Lumbermen's Supplies and Waterproof Clothing.

J. D. SHIER

MANUFACTURER OF

Lumber, Lath & Shingles

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THE RATHBUN COMPANY

DESERONTO, ONT.

MANUFACTURERS OF

Endorsed by leading Architects
Absolutely Fire-proof Deadens Noise
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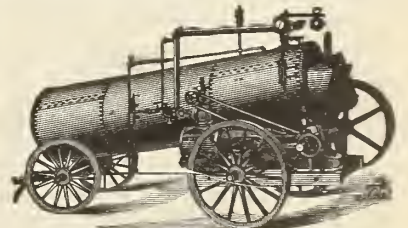
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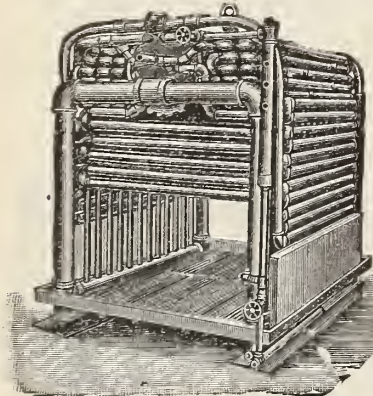
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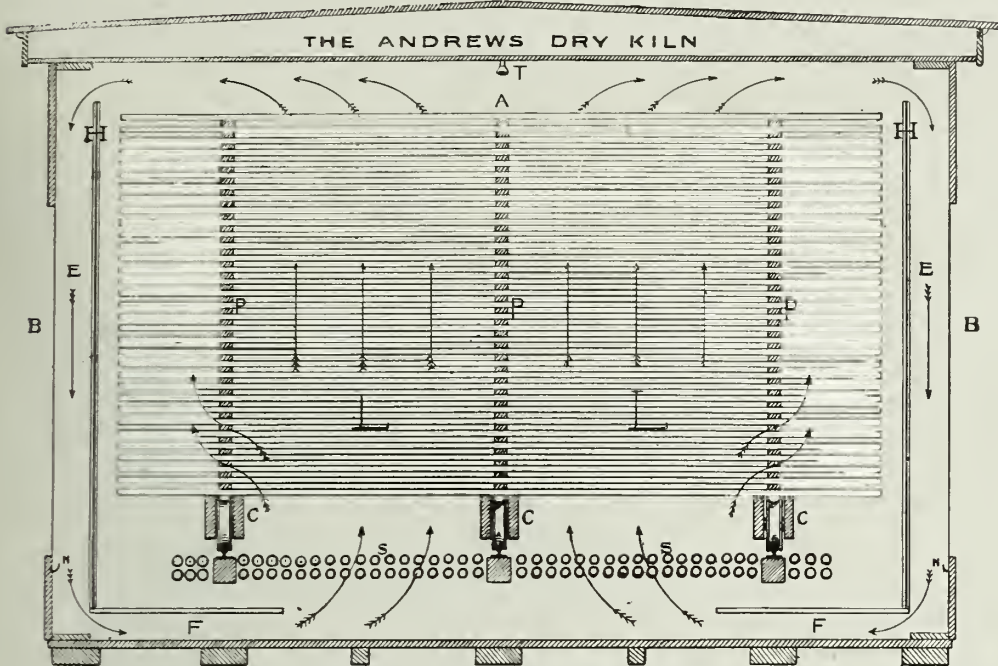
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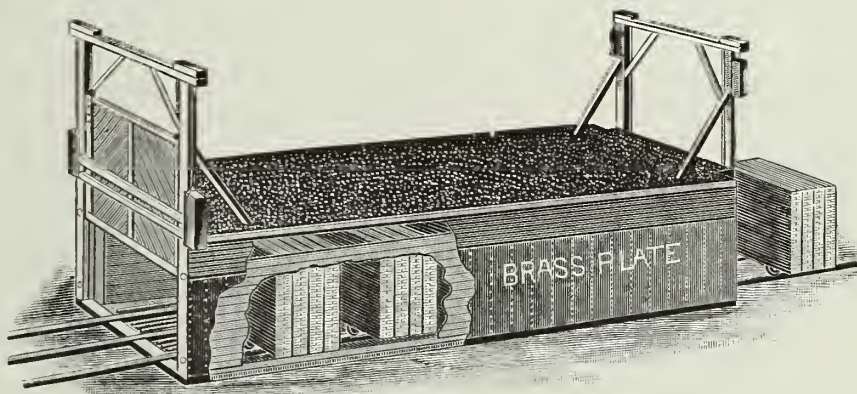
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- ... NO EQUAL ...



Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

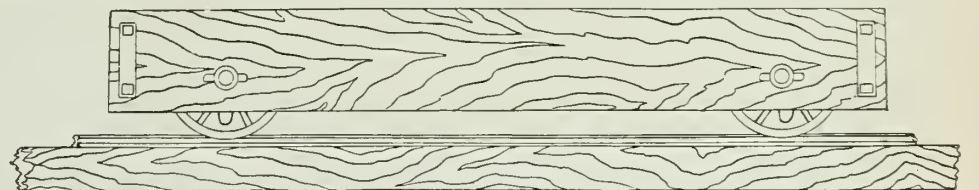
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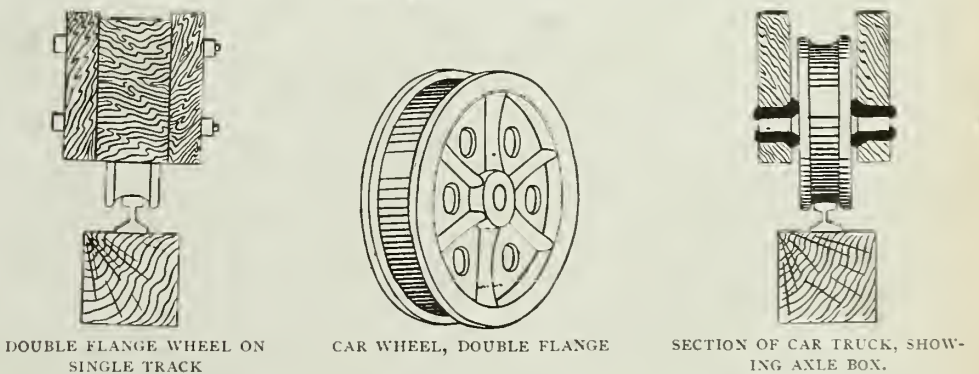
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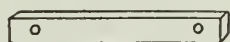
SIDE VIEW OF CAR AND TRACK.



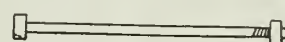
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SECTION OF CAR TRUCK, SHOWING AXLE BOX.



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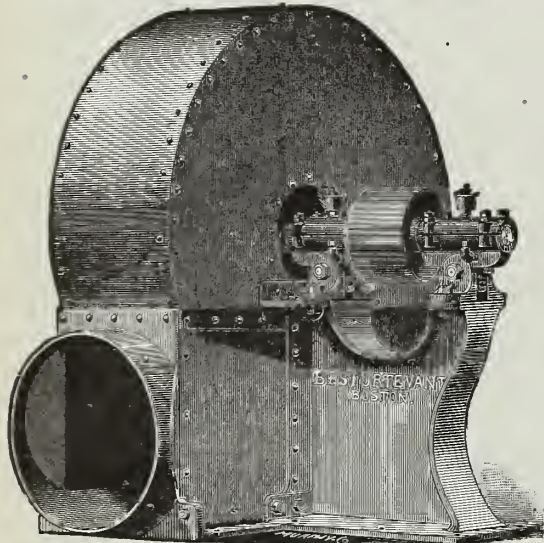
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NUMBER 12. }

TORONTO, ONT., DECEMBER, 1892

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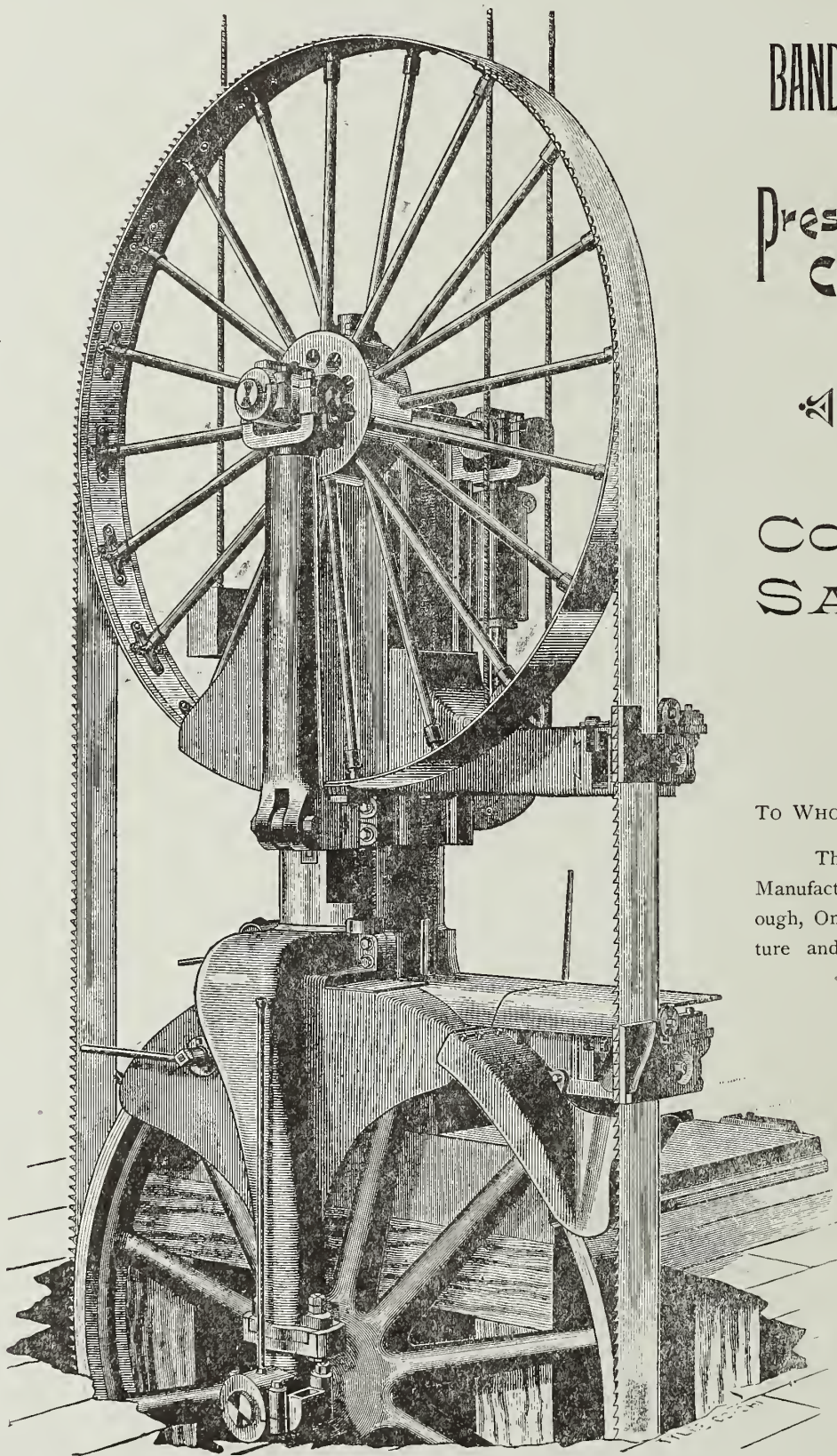
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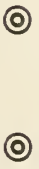
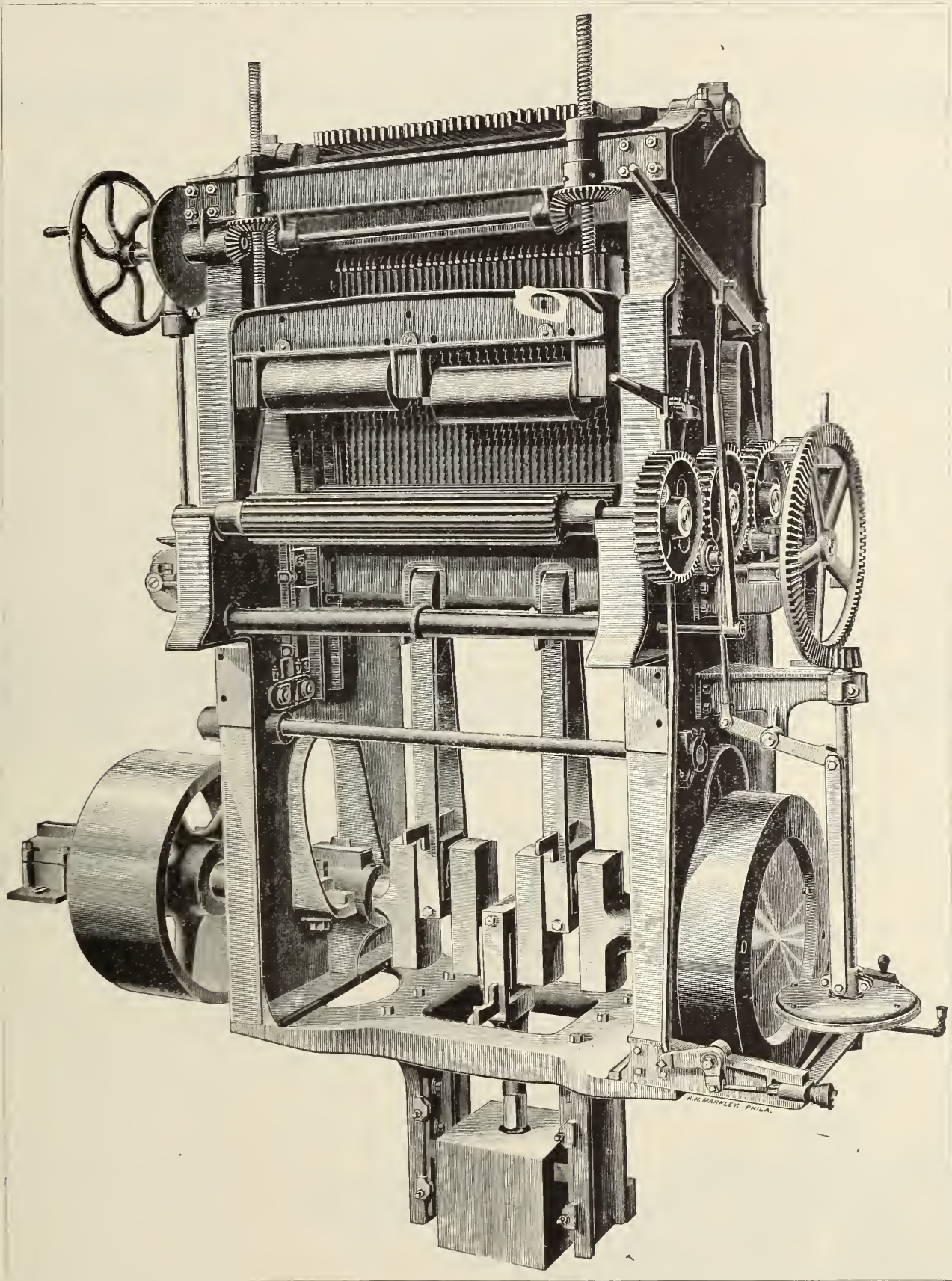
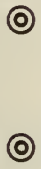
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 Revolving Bed Surface Planer; Cowan & Co., makers
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 Four-side Moulder; Goldie & McCulloch, makers
 "Eclipse" Planer and Matcher; Cant Bros. and Co.,
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 Four-side Moulder; McKechnie & Bertram, makers
 Three-side Moulder; McGregor, Gourlay & Co., makers
 Three-side Sticker; Cant, Gourlay & Co., makers

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 Surface Planer; McKechnie & Bertram, makers
 Surface Planer, 24-in.; C. B. Rodgers & Co., makers
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 Stationary Bed Planer; W. Kennedy & Sons, makers
 Surface Planer; McKechnie & Bertram, makers
 Sash and Moulding Machine; McKechnie & Bertram,
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 One-side Moulding Machine; American make
 Pony Planer, 24-in.; McGregor, Gourlay & Co., makers
 New Improved Pony Planer; McGregor, Gourlay &
 Co., makers
 Pony Planer, 20-in.; McKechnie & Bertram, makers
 New Improved Pony Planer, 24-in.; Cant Bros. & Co.,
 makers
 Pony Planer, New Improved; McGregor, Gourlay &
 Co., makers
 Pony Planer; Cant, Gourlay & Co., makers

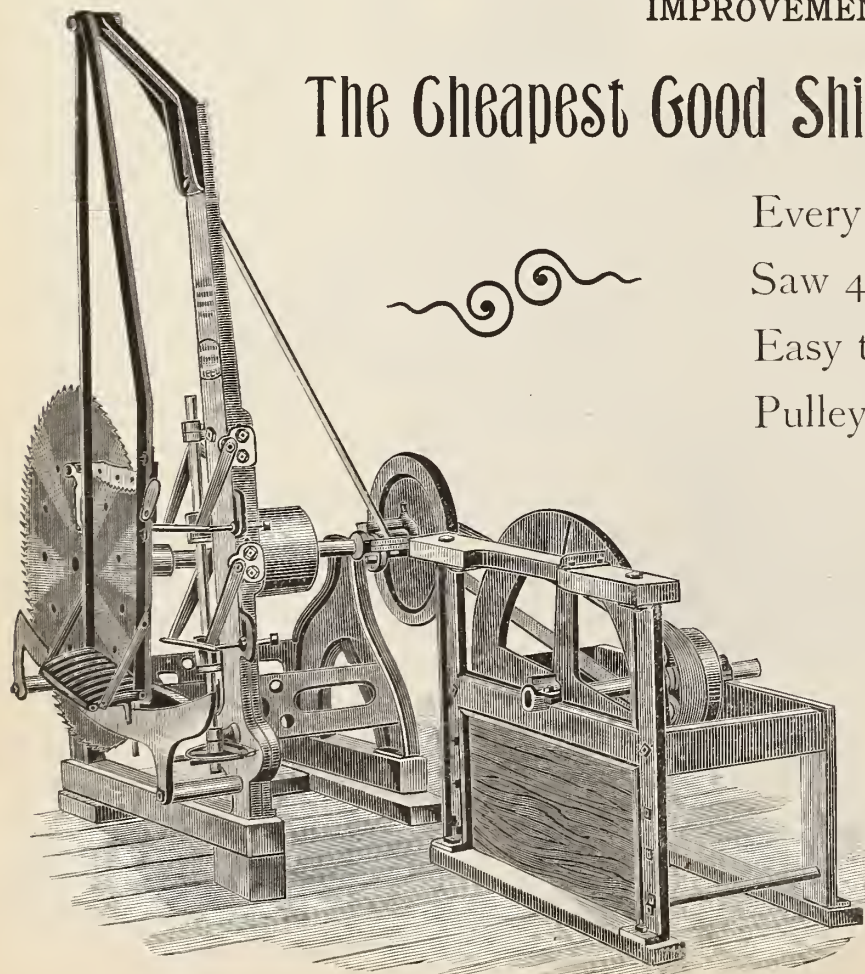
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 Pony Planer, 30-in.; Major Harper, maker
 Pony Planer, 20-in.; McKechnie & Bertram, makers
 Pony Planer, 24-in.; Frank & Co., makers
 Pony Planer, 20-in.; Waterous Engine Co., makers
 Pony Planer, 20-in.; Josiah Ross, maker
 Pony Planer; A. E. Doig & Co., makers
 Heading Planer; Goldie & McCulloch, makers
 Buzz Planer, 16-in.; Cant, Gourlay & Co., makers
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F. J. DRAKE

BELLEVILLE, ONT.

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[Written for the CANADA LUMBERMAN.]

FREE LOGS ONLY FOR FREE LUMBER.

BY WILLIAM LITTLE.

WHETHER the policy of allowing Canadian sawlogs to be exported free of duty to the United States, so long as that country imposes a duty upon the lumber made from similar logs, be good or bad for this country, it can be confidently asserted that the advocates of this policy have yet failed to show a single reason for its existence, except that the conditions are so much more advantageous to American millmen that a few speculators in timber limits may thereby be enabled to get higher prices from them, or from Canadians who like them sell or saw their logs in the States. "Only this and nothing more."

The platitude about Americans employing a large amount of labor in Canada in getting out the logs, an amount much greater, it is said, than the cost of sawing, as I see mentioned in two places in your last issue, has no bearing whatever on the case. The same, if not more labor, would be employed by Canadians in doing the same work, for all acquainted with the trade know that Americans, by using labor-saving devices and the best appliances, actually employ less labor instead of more in getting out sawlogs; while we are not only deprived of the sawing of our own timber in this country, but of the freighting the product to market and many other incidental advantages; not the least of them being that we should still retain our people in this country who will now follow the logs to the States, and who when once there will no doubt there remain.

Having always advocated the freest trade relations between Canada and the United States I have for years endeavored to get the United States Government, in its own interests as well as that of Canada, to remove all duties from lumber, even being willing to exchange "free logs for free lumber." And knowing as I do the sentiments of the American people on this subject fully as well as any of those who pretend to speak for them, I can safely say that, if our people had insisted on a fair exchange as indicated the American lumber duties would have been removed ere this in exchange for free sawlogs.

I should not, however, have troubled you with this communication did I not see that those interested in having matters remain in their present unsatisfactory condition were having themselves interviewed, so as to try to delude the Canadian public through the press with the false idea that if our Government should re-impose the export duty on sawlogs something dreadful would happen, that the Americans would at once retaliate by enormously increasing the duties on lumber, and such like rubbish. The fact is that the duties on lumber have hardly an advocate in the United States outside of the lumbermen themselves, who have been able to have them retained only by the most scandalous misrepresentations of the conditions. Even when the McKinley Bill was under discussion and duties of nearly all kinds were to be raised instead of lowered, the duties on pine lumber were reduced one-half, or from \$2 to \$1 per thousand, the only question being as to what reduction to make or to remove the duties altogether. And this action on the part of the Americans in reducing the duty on pine lumber was not done in our interest in exchange for free logs, as has been falsely stated by those who know better, but solely in their own interest.

The committee having this matter in charge after reducing the import rate from \$2 to \$1, notwithstanding the almost frantic efforts of some American lumbermen, aided, I regret to say, by some of our own people interested in getting logs to the States free of duty, to have the export duties added to the import duty, properly recognizing the propriety of our Government charging

equivalent duties on the export of sawlogs to what they imposed on the sawn lumber, inserted the following clause to govern the export duty on sawlogs: "Provided that, in case any foreign country shall impose an export duty on pine, spruce, hemlock or other logs, or upon stave bolts, shingle wood or heading blocks exported to the United States from such country "in excess of the duty fixed in this act upon the sawed lumber manufactured of the logs heretofore mentioned," then the duty upon the sawed lumber herein provided for when imported from such country shall remain the same as fixed by the law prior to the passage of this act." So that, if our Government had not been entrapped, as I insist it was, into throwing off the export duty, this would have been the wording of the McKinley Bill relating to the lumber duties, and there is evidence existing to show that the act was passed with the words I have placed in inner quotations actually retained, but subsequently surreptitiously withdrawn to meet the conditions when the United States statutes were printed, as these words appear in the first edition of the United States Tariff Act published by Mr. Downing, of New York, immediately after the act was passed. So we may rest assured that the Americans are not lying awake nights in order to increase the rates of duty they may have to pay on Canadian lumber.

And now, if we were to re-impose the export duties, the worst that would happen would be a temporary restoration of the \$2 duty on pine lumber, which it is safe to say would no sooner be exacted than measures would be immediately taken by the United States Government to remove all duties from Canadian lumber in exchange for free sawlogs.

The simple enactment by our Government of a Bill providing for an export duty on sawlogs of double the rate of duty exacted by any foreign country on the lumber made from similar logs, would at once settle the question. The Americans would then have their choice of paying duties upon the lumber and on the logs, or having both free as they might prefer. And now that they want both it does not require much foresight to know the result.

This would leave the matter for the Americans to settle among themselves, but if something like this is not done the existing conditions are so manifestly in their favor that we cannot expect either political party to interfere, for they now have to all intents free Canadian lumber in getting free Canadian logs.

You no doubt remember that when Mr. Bryan, of Nebraska, introduced a Bill at the last session of Congress to put lumber on the free list, he was waited on by a delegation of lumbermen to protest against his Bill, and after listening to a lengthy argument made by a Mr. Goodyear, an eminent Buffalo lawyer, incidentally lumbering, who depicted the imaginary ruinous results to ensue if this Bill became law he simply remarked: "Well, what of it? It was time now that the American people had their innings, the lumbermen had theirs long enough." I do not remember the exact words but I do the ideas. Then a Mr. Loud, a lumberman from Michigan, tried his hand at the argument, as you may see, with better effect. His first question was to ask Mr. Bryan what he expected to attain from his Bill? When Mr. Bryan replied: "Just what the Bill asked for, viz.: Free lumber." "Is it free Canadian lumber?" "Yes, free Canadian lumber." "Well, Mr. Bryan, if that is what you are after we can soon give you all the 'free Canadian lumber' you want, as we own the timber in Canada, and there is no duty on the sawlogs on either side, and would you not as soon that we did the sawing in our own country as in Canada; we cannot give you all the 'free Canadian lumber' this year, but we can next year and for many years afterwards." Now, I insist

that so long as we remain so idiotic as to permit the present conditions to exist, neither Mr. Bryan nor any other American, be his politics what they may, can ask for a change, as they will be at once met by the same argument; and I notice two statements published in the last issue of the LUMBERMAN which will enable Mr. Loud to show that he was able to keep his promise, one of these being that the entire cut of pine lumber by the saw mills in the Ottawa region was about 450,000,000 feet this year, and the other that the amount of sawlogs to be cut this winter in Canada by Americans to stock their mills in Michigan next year is 400,000,000 feet, or about an equivalent amount. So that, should Mr. Bryan again bring forward his Bill for free lumber he will be in the same false position our silly action before placed him.

I stated in a letter last year, which I think you published, that if this one-sided arrangement, in which the Americans have all the advantages, were to continue there would not be, except for the local trade, a single Canadian saw mill in the Georgian Bay or Lake Huron district in operation in two years time, and I am now satisfied that if our Government will still persist in this folly (for it cannot be characterized by a more accurate term) I will then be found to have proved to be as good a prophet as Mr. Loud has already shown himself to be.

MONTREAL, Que., 1892.

BY THE WAY.

THE CANADA LUMBERMAN was pleased to receive a call from Mr. A. McPherson, of Longford Mills, Ont., a week ago. Mr. McPherson is the owner of a saw mill and shingle mill at Longford Mills. The latter was destroyed by fire a fortnight ago, but was fully insured and will be rebuilt immediately. Mr. McPherson is also arranging for the erection of a saw mill and shingle mill at Fesserton. The danger, which has before been hinted at in these columns, is entertained by Mr. McPherson that the cut another season may be so large that a reaction in the volume of trade and prices will afterwards follow, and the depressed conditions of a few years ago in lumber circles repeat themselves. This may be a pessimistic view of the situation, and yet it is only the tightening of the brakes sometimes that prevents disaster ahead.

Mr. H. R. Herriman, writing from Little Current, Ont., in reference to an item in the November CANADA LUMBERMAN chronicling the death by drowning of a brother of Mr. Herriman's, says the facts are these: "On October 20, while I was returning from Little Current to my mills at Honora (a distance of 14 miles) in a sail-boat, in company with the engineer of the mills and Mr. A. Cadotte, storekeeper, Honora, the boat was capsized by a squall, and, after being in the water for over two hours, the engineer and myself were rescued, Mr. Cadotte being drowned in attempting to swim to shore." Touching on trade matters, Mr. Herriman says: "Lumbering is very brisk in these parts. There are more men employed in the woods near here on the north shore at the present time than ever before. It is said that McKeown & Glover, jobbers on the Spanish river, have 40,000,000 feet of pine logs on the skids already, and J. Howry & Sons a similar amount on the Whitefish. All of the latter and part of the former firm's cut will be manufactured in Michigan. Large quantities of cedar ties, paving and fence posts are being taken out on the island here as usual. Pulp wood is abundant here, but as there appears to be very little demand for it no one is doing anything with it. The long-looked-for telegraph line will be completed to the island in a couple of weeks, and lumbermen are rejoicing. The railroad is expected to follow next season."

REVIEW OF THE CANAL TOLLS QUESTION.

AN article on "The Canal Tolls Question," against which the charge of uncandor can hardly be made, is to be found in a recent number of *The Lake Magazine*, a new and creditable candidate for journalistic favor in this country. The writer is Mr. R. S. White, M. P. for Montreal and editor of the *Gazette* of that city.

Taking as the text of his paper article 27 of the Washington treaty of 1871, Mr. White proceeds to briefly review the history and practice of the clause, both as regards Canada and the United States. The system of rebates had its commencement in an Order-in-Council passed by the Dominion Government in the spring of 1884, when a refund of 18 cents per ton was granted on the toll of 20 cents per ton collected upon wheat, corn, peas and other cereals passing down the Welland and St. Lawrence canals for export. It was not until August 23, 1888, that the United States took exception to this procedure, when President Cleveland drew attention to the matter in a message to the Senate and recommended that "such legislative action be taken as will give Canadian vessels navigating our canals and their cargoes precisely the same advantages granted to our vessels and cargoes upon Canadian canals, and that the same be measured exactly by the same rule of discrimination." This recommendation was not acted upon and nothing more was heard of the matter until October, 1891, when the state department at Washington moved in the matter, primarily as a result of a memorial of the Lake Carriers' Association, complaining of the discrimination. The nature and results of the various conferences that have been held between the Canadian and United States governments from that date up to a few months ago, when President Harrison's retaliatory resolutions were put into force, are too well known by every reader of the *CANADA LUMBERMAN* to need any recital in these pages.

Mr. White shows very clearly that the grain must be carried down the whole length of the Welland and St. Lawrence canals to earn the reduction of tolls, and that these regulations are extended "to American vessels and cargoes equally with Canadian vessels and cargoes." "Putting aside altogether as paltry and contemptible," says Mr. White, "any contention that might be based on the fact that Canada has never by legislative enactment consented to give equality of treatment to Americans in her canals, it is indisputable that the artificial waterway between Lake Erie and Montreal is open and accessible to American vessels upon identically the same terms as to Canadians."

Viewing the question broadly, Mr. White is inclined to think that a point can be made against the Dominion Government for having confined the transshipment of grain to Canadian ports. The Government, in an Order-in-Council of date June 17, 1892, states the object of the rebate system to be the encouragement of ocean shipping via the St. Lawrence. "I am bound to say," writes Mr. White, "the Canadian case would be infinitely stronger, indeed impregnable, but for this lapse. . . . There is some reason for believing that the resort to retaliation by the United States was prompted by the refusal of the Canadian Government to extend the rebate to grain transhipped at Ogdensburg, and it certainly does seem somewhat anomalous that a policy adopted professedly to encourage an export trade by way of the St. Lawrence should be burked by a regulation requiring transshipment on the Canadian side. . . . While no treaty compact has been violated by Canada, nor the letter of the engagement broken, the spirit of the agreement has been transgressed in the withholding of the rebate from grain transhipped at an American point on its way to the ocean vessel."

That the United States Government have on certain occasions been guilty of interpreting the treaty between the two countries in a narrow and petulant spirit is shown in the action of the Federal Government exacting in 1885 "that a vessel arriving in the United States with a cargo from abroad should enter and discharge her cargo at the first port of entry she met." In entering the United States through the Champlain canal, the first port of entry would be Whitehall, at the northern extremity of the Whitehall canal. "There," said Mr. Fish, the then Secretary of State, "a vessel arriving with a foreign cargo would be obliged to discharge her cargo,

If a Canadian vessel had a fancy for navigating the canal further on she could certainly do so and go as far as Albany," but without cargo. The trouble in this case seemed to have had its seat in a conflict of opinion between the State and Federal authorities. Sometime later, however, to use the language of Mr. White, "the American coon came down," and instructions were issued to permit Canadian vessels to unload at Buffalo and various other American ports, a change in conditions that affected favorably the lumber interests of this country.

Mr. White closes his article with the following reference to the recent reprisals of the United States:—"Canada grants a rebate of tolls on all cargoes bound for Montreal or a port east of Montreal, whether the vessels be British or American. The United States grants exemption from tolls to all cargoes through the Sault canal bound to Ogdensburg or any American port west of Ogdensburg, no matter what the nationality of the vessel. Just as the full tolls are exacted by Canada on all cargoes through the Welland canal to American ports, so are full tolls exacted by the United States on all cargoes through the Sault canal bound to Canadian ports. There we have what Secretary of State Foster calls "parity of conditions," and it is really somewhat difficult to discover in the conduct of the United States any justification for threats and denunciations on our part. Instead of either whining or menacing, the common sense course is to frankly admit that the Americans have simply taken a leaf out of our book; to recognize that the policy of reprisals is neither dignified nor profitable; and, conscious that two can play at the game of fence, to honestly seek to establish a large measure of reciprocity in the carrying trade. The Dominion Government has intimated that the discrimination in favor of the St. Lawrence route will be abandoned at the close of the present season, but the United States may fairly be asked for some equivalent for any surrender of the right to control the tolls for the use of the canals. They gave in 1871 mixed transportation by land and water to obtain the reciprocal use of our canals; they should be asked to restore the privilege of this carrying trade, to enlarge the treaty period for the navigation by Canadian vessels of Lake Michigan, and for the transit-in-bond of merchandise through the United States. If reciprocity in the coasting trade can be secured so much the better; but in any event the not very dignified game of recrimination and discrimination between the two countries ought to be terminated."

SAWDUST IN BRICKS.

EXPERIMENTS are being made, says Hardwood, which may result in making a new market for sawdust, at least that from hardwood and perhaps pine and similar softwood dust made by the band and other thin-gauge saws. The experimenters contemplate substituting fifty per cent. in bulk of fine sawdust for the ordinary clay and sand. The clay must first be thoroughly puddled and freed from stones as much as possible, while the sawdust must be run through a fine screen. The two should then be mixed, bulk for bulk, as perfectly as possible, so there shall be no lumps of either.

The bricks can then be made in the ordinary way, either by the common machine or by the press. The latter would be preferred, and the heavier the pressure the better the result. After being dried they should be burned in a very slow kiln, but the process should be continued until the sawdust is completely burnt. After the kiln is cooled of, it should be uncovered and the bricks thoroughly wet so the water will run through them. This will carry off all the alkali from the ashes of the sawdust and much of the ash itself.

By this process it is claimed a brick can be made which, while of full regulation size and with regular outline and shape, will be only a little more than one-half the weight of the ordinary brick, while losing less than one-fourth of its crushing resistance; the brick resembling lava in appearance, though not in strength and texture.

If such a brick can be made advantageously, its great utility must be readily apparent. It would take the place of the common brick for all purposes where the full strength or hard outside finish is not required. It

would answer admirably for all but the outside course in the walls of ordinary dwelling-houses, and other buildings not intended to support great weight; while for inside partition walls, ceiling arches and all similar purposes they would be far superior to the ordinary hollow brick now in use, their porous form allowing them to take plaster directly without lath and to retain it with great tenacity. If used for entire outside walls of small houses, all that would be required to render them damp and wind-proof would be a coat of plaster, which would never peel off.

A little thought can suggest numberless uses to which such bricks could be put to great advantage. It is claimed they can be made more cheaply than all-clay brick, besides the reduction in weight making a great difference in cost of handling. The experimenters claim also that the principle can be extended to the making of drain tile, rendering it so permeable by water while still quite as durable if properly and sufficiently burned, as to make it much more valuable for drainage purposes.

The world moves, and it is not beyond the bounds of reason for these speculations and experiments to result in a valuable discovery.

EDGERS AND EDGER MEN.

IN the last few years many books have been published with the avowed purpose of teaching filers how to get good work from poor saws; numerous articles have appeared telling sawyers how to secure a large percentage of wide, clear finish and rift flooring strips from small, knotty logs by proper sawing; much good advice has been given to foremen as to the fulfillment of the duties appertaining to the station in life to which it has pleased Providence to call them. The trade papers, too, are full of good pointers to general managers as to the best way to successfully conduct a lumber business. All these have been good in their way; but in the meantime the edger man has stood at his post manipulating the product of the mill as seemed best to him, with no comments made.

There is probably no point in the mill where the profits can be made to disappear at a faster rate unnoticed than at the edger, and no place where the difference between a competent and an incompetent man stands out so plainly in dollars and cents. An edger man can work his lumber economically as regards material, making no waste, and yet fall many dollars per day below the value which the lumber would have if properly edged. A twelve-inch board is only common if it has a four-inch common strip in it, while, if worked into four inch strips, two-thirds of the amount would be clear, and often clear rift. The writer has in mind an instance illustrating this: A firm which grades its lumber closely bought two cars of twelve-inch boxing from a neighboring mill, being short on that particular item. In unloading it a large number of pieces were noticed that had clear strips on one or both edges. Out of curiosity, in part, they regraded the two cars, ripping up every piece that could be worked to advantage, and as a result found they had nearly 7,000 feet of clear and star strips from four to eight inches wide. This, of course, was an extreme case, but it shows one reason why some mills fail to make money.

It is probably within bounds to say that the product of nine mills out of ten could be increased from fifty cents to \$1 per thousand in value by closer edging. This in itself in a mill of large capacity would amount to several thousand dollars per year. With the large amount of lumber which the edger man is required to put through the machine daily, errors are bound to occur; but there is no part of the mill where close watching is productive of better returns than here.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

Chas. Ashby, Pontypool, Ont.: Would not be without the *CANADA LUMBERMAN* on any account.

VIEWS AND INTERVIEWS.

Compression
of Timber.

The compression of timber is becoming a growing industry, and the material thus treated is being applied to a variety of useful and ornamental purposes, especially in the field of carving, attractive and artistic designs being thus brought out, pronounced in many cases fully equal, if not superior, to anything ordinarily produced in that line. The wood to be employed in this manner is compressed either in its natural condition or after being steamed, and it is found that the hardest, well-seasoned ash timber, say of four inches thickness, can be pressed into about three inches without injuring the fibre. Moreover, it is also found that wood can be "upset" the same as iron; and the increased tenacity of bent and compressed wood of this sort, as compared with the same in the natural state, is declared to be something surprising. In mechanical operations compression is now applied to spoke tenons, the work being described as very simple and rapid, the tenon properly tapered and ready to drive to its place, an increased strength being thus added to the wheel which is equal to three additional spokes.

Perhaps
You.

Seldom a man cares to pull the mote out of his own eye. He can see the defect in his neighbor's eye, but his own, he thinks, is clear. It would be well, however, were there more looking within on the part of the individual. A recent writer puts the business aspect of the matter bluntly thus: "Those who are continually complaining of ill luck and the failure of making a success in life should look for the cause in themselves rather than in the conditions and circumstances which surround them. The man who makes a success of life is generally the one who thinks of his work, while the one who is a failure generally thinks of his wages much more than of his work. Honest and faithful application will win success every time. Look about you and note how true this is with workmen of your acquaintance. The world may owe every man a living, but it is not running round after him to pay it." A railroad man has said: "The demand is for men who are intelligent and take a keen interest in their work, and, by reading and study, aim to fit themselves for more efficient service." The woodworker who works on these lines is the man who becomes a credit to his trade.

A
Tree-Feller

England comes to the front with a new invention of value. A Chelsea manufacturer has brought out an improved form of steam tree-felling and cross-cutting machine. Since the original patent was taken out for these machines a number have been sent to all parts of the world. They are mounted upon a strong axle, supported on a pair of wheels of such a diameter as to enable the saw to cut through a tree at a height of about three feet from the ground. This skeleton carriage is fitted with a pair of shafts, which renders it readily transportable through the forest. After the tree is felled, the entire machine can be partially rotated upon its axis, so that, by simply turning a hand-wheel, the saw can be set to cut in a vertical direction, or at any angle between the horizontal and vertical position. It generally happens, when a large tree falls, that it does not lie flat, as its branches hold the upper part of the trunk off the ground, and so, in order to cross-cut trees lying in such positions, it is necessary to incline the saw somewhat from a direct vertical line, which is readily done by the adjustment. Again, in order to cross-cut through a high-lying trunk, it is necessary to elevate the saw, or, on the other hand, in the case of a low-lying log, to depress it. To effect this, slotted stays are attached to each shaft, the lower ends of the stays being pivoted to short stakes driven into the ground. A strong bolt passing through shaft takes into the slot in each stay, to which it can be instantly set fast by means of a nut furnished with a handle, and thus, by raising or depressing the shafts, the saw can be set at the required elevation to suit logs lying in any position. The machine, as originally constructed, would fell an oak tree ten feet in girth in three or four minutes, and would cross-cut it afterwards in about two minutes, but it is expected that in its improved form, even quicker work is possible.

An Engineer's
Queer Find.

A queer find was that of Antone Hagenlocker. Antone is an engineer in the employ of the Ansonia Brass and Copper Co., of Waterbury, Conn., and as he placed an extra large lump of soft coal under the boiler he had no thought of what that lump of coal contained. A few minutes later he opened the furnace door again, and what was his surprise to see in the furnace a handsome plant resembling a species of cactus. It was bright red from the heat, every vein in the leaves being defined. He carefully removed it from the furnace without breaking, and when it cooled it returned to a dull gray color. It rests on a base of coal and there stands out a well-defined petrified plant, but not carbonized so that it burned as readily as did the coal surrounding it. He has shown the formation to many, and nothing like it has ever been seen here. The stock of the plant where cut from the parent stem is well defined. Mr. Hagenlocker is to have it mounted and placed under a glass case.

A Wooden
Gold Mine.

Sixty-seven thousand dollars in hard cash was recently realized from the wooden floors and rubbish of an old building in New York. For many years previous to last spring the building in question, on Bond street, had been used in the manufacture of Waltham watch cases. Three floors were occupied for this purpose, and in the requirements of the business from \$1,000 to \$3,000 in gold were melted every day. Last May the firm engaged in this work withdrew from the business, and made arrangements with Glorieux & Woolsey, of the Irvington Smelting and Refining Works, by the terms of which the latter took up the floors in the building, gathered up all the rubbish, and carted the entire lot to the place of smelting. Then the precious refuse was subjected to various processes known to the refiner, with the result that the sum of about \$67,000 was realized. "We began the work," said Mr. Woolsey, "three months ago and completed it a few days ago. There were 60,000 square feet of lumber in the three floors that had lain for nineteen years. We had wagons built especially to carry away the valuable timber. The wagons were so constructed that no particle could drop to the ground, and their boxes were carefully cleaned out after the transportation of each load. The floors were sawed into lengths of four and five feet. Then it was carted to the smelting works at Irvington and burned to ashes. The latter were sifted, and then by chemical process the gold was brought forth. It was a slow task, but paid well. We turned over to our clients gold to the value of \$67,000. We did the work on a percentage, and are very well satisfied."

Timely
Talk.

Straws often show which way the wind blows. We judge men by little things. A blunder is made, an ill-advised word is uttered, and we take the circumstance as an index of the general character of the individual. The judgment may be wrong, but not always. This fact needs to be remembered that human nature is so judged in nine cases out of ten, and it pays one to be on their guard and make as few mis-steps as possible. It is told of Baron Rothschild that he would not do business with an unlucky man. Touching squarely on the work of the woodworker our contemporary, Woodworker, has this to say along the lines we have suggested: "In small establishments, where the owner acts as foreman and general superintendent, the mill office can be easily neglected. It gives a customer a very poor opinion of business capacity of the owner to see him compelled to look over a lot of dusty books and papers for a needed something. It shows a lack of systematic office work, and may impress the customer with the idea that the same carelessness extends to all parts of the concern, and that prompt work can not be expected. The office part of a small mill should be just as systematically and neatly conducted as in a big concern. It is expected to be the brains of the place and to furnish the "where-with" to keep things moving, and if it is neglected disaster may sooner or later follow. It is not expected that every mill-owner whose business will not warrant a book-keeper can keep his accounts as well as a trained expert; but he can keep them correctly and up to date, so that, though his methods may be crude, they will

have system back of them. The mill-owner who can get into the small office in one corner of the mill, and without hesitation produce a complete account of his dealings with different parties, is, unless he is deficient some place else, crowding success pretty close.

ALL ABOUT TREES.

IN the southern part of Europe 38,000 oranges have been picked from one tree.

The hardest known wood is said to be cocus wood. It turns the edge of any axe, however well tempered, so it is claimed.

India rubber trees grow wild all over Lee County, Florida. At Fort Myers they are the chief shade and ornamental trees.

In spite of its ice and severe cold, Labrador possesses 900 species of flowering plants, 59 ferns, and over 250 species of mosses and lichens.

There is a tree in Jamaica known as the "life tree," on account of its leaves growing even after being severed from the plant. Only by fire can it be entirely destroyed.

Horticulturists tell us that the orange was originally a pear-shaped fruit about the size of a common wild cherry. Its evolution is due to twelve hundred years of cultivation.

Princeton has two trees which were planted previous to the Declaration of Independence. The sycamores in the dean's yard were planted in 1767 by order of the trustees, to commemorate the resistance of the Stamp Act.

The points of the compass can be told from trees by the following simple observations: The side of a tree on which most of the moss is found is the north. If the tree is exposed to the sun the heaviest and longest limbs will be on the south side.

In Turkey, if a man falls asleep in the neighborhood of a poppy field and the wind blows from the field toward him, he will become narcotized, and would die if the country people, who are well acquainted with the circumstances, did not take him to a well or stream and empty pitcher after pitcher of water on his face and body.

The Falkland Islands produce no trees, but they produce wood in a remarkable shape. You will see scattered here and there singular blocks of what looks like weather-beaten, mossy gray stones of various sizes. But if you attempt to roll over one of these rounded boulders you will find yourself unable to accomplish it. In fact, the stone is tied down to the ground—tied down by the roots, or, in other words, it is not a stone, but a block of living wood.

BIG TREES IN FORMOSA.

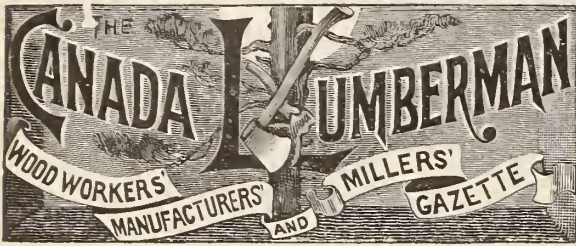
IN a Shanghai native newspaper are the details of the remarkable discovery in the southern part of the island of Formosa of trees that rival in size and beauty the giant redwood trees of California. Ten Chinese merchants of Foochow organized the exploring expedition. The vast forests there had never been penetrated by traders, but it was known that the country was broken by high and rugged mountains that had very heavy timber. The expedition started from the Chinese port of Samalan. After seven days of hard travel it reached the Hualin river. It found no roads, not even a trail, and in many cases the members journeyed for hours along the tracks of wild beasts through heavy timber. Many signs of natives were seen, but the savages were too timid to show themselves. In one of the great forests trees of enormous size and height were found. Ten men, joining their outstretched arms, were unable to clasp the trunk near the ground. They estimated the height at two hundred or more feet. Another peculiar tree bore red and white flowers as large as an ordinary sieve. The forest life, from the descriptions of the Chinese, resembles that of the Amazon.

WHERE IT CATCHES.

Business Man—You remember that "ad" I had in your paper and took out two months ago. Well, I want to have it put back again.

Editor—Why, I thought you said that no one noticed it while it was in.

Business man (humbly)—They didn't seem to until I took it out.—Clothier and Furnisher.



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—BY—

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J. S. ROBERTSON, EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

A WORD WITH SUBSCRIBERS.

IT has become a fixed rule in newspaper offices that the books should show a clean paid-up subscription list on the opening of each new year. If, perchance, subscribers have forgotten for a time that all first-class journals look for a close adherence to this pay-in-advance system—which is the only sound business system where the cash outlay is as large and continuous as in newspaper publishing—they are ready to accept the publisher's reminder and act accordingly before the old year will have finally passed out of sight. There are some subscribers on the lists of the CANADA LUMBERMAN who require this reminder at this time. Those who have paid their subscriptions beyond January, 1893, will have no direct interest in this paragraph. All others will receive an account of their indebtedness in this number of the LUMBERMAN. We ask that they make a point of at once enclosing the amount in an envelope and mailing it to this office. There is no time like the present to attend to a business matter that needs attention. A writer on commercial topics has well said: "Why is it that men will constantly place in opposition to their greatest endeavors the damnable, retarding influence of a total disregard of the promptness which should mark the discharge of the minor duties in the form of what is too often considered the insignificant details? Here we find a man who would not think of putting off until an indefinite future date the preparation for the meeting of demands upon him in which there was at stake the consideration of hundreds of dollars and his credit with one firm or individual; but the same man will carelessly cast aside for future consideration fifty seemingly insignificant accounts which are brought before him in the course of one day, ignoring the principle of life which teaches that the 'little things make up the sum of living.'" We have no need to remind our readers of the determined efforts being made by the LUMBERMAN to give them a journal that shall in every way creditably represent the large and important trades of which they are members. We shall expect to hear from all concerned promptly.

SMUGGLING BY LUMBERMEN.

THE charge is made that large quantities of shanty supplies have been smuggled this season from Bay City, Saginaw and other Michigan ports by American lumbermen to various points on the north shore of the Georgian Bay. The matter having been brought under the notice of the Commissioner of Customs he has refused to believe the story. On the other hand an officer who has been aboard of one of the large tugs engaged in towing logs to Bay City all season is reported to have said to the correspondent of the Mail at Owen Sound "that almost the whole supplies for the shanties and

mills had been smuggled from Bay City and Saginaw by the vessels towing the logs. Some of the tugs, however, refused to carry the goods, which were not landed on the mainland, but on islands, from which they were afterwards removed to shore at night in fishing boats. One steamer brought a full cargo of smuggled goods and landed them at an island. The officer further states that the number of logs actually cleared from the Customs offices is generally put at about one-third the actual number, and that they are also falsely entered again on the American side."

These are serious statements for a newspaper to make without good reason to believe they are true. American lumbermen operating in Canada cannot afford to rest under the imputation they contain. We have been ready to give our American friends credit for business shrewdness, and we are just as free to believe them to be honest. If smuggling has been going on to any extent whatever, much or little, by any of their number, every honest lumberman should, in fairness to himself, join in a search for the wrong-doers. Our Customs department must necessarily enquire into the matter. The charge is of a double nature (a) that shanty supplies are being smuggled into the country, (b) that with logs exported to the States the entries are falsified and the numbers minimized.

The truth or falsity of both statements must be known.

FREE LUMBER.

THE election of Grover Cleveland to the Presidency has already set United States lumbermen speculating on the possibility of free lumber in the near future. Our Michigan correspondent has something to say on the question in his letter on another page. The Northwestern Lumberman, which labored with all its might to defeat the Bryan bill at Washington in March last, apprehends that this bill "will be passed by that body at its winter session. The people have declared in favor of a reduction of tariff duties, and Congress is expected to act accordingly." But our contemporary would not advise the withdrawing of hostilities, though it knows the odds are against the On-to-Washington movement. Every manufacturer of lumber is urged to interview his member of Congress on this subject and find where he stands.

"The vast lumbering interests of the south and west that are now seeking a profitable market in the northern and eastern states," argues the Northwestern, "would be seriously crippled by the admission of lumber free from Canada. Lumbermen in this country must rely solely upon their efforts to prevent the passage of a measure that is a menace to the entire saw mill interests."

Another view is expressed by the same journal through its Michigan correspondent in these words: "In conversation with a lumberman operating quite extensively in Canadian limits, he said that he did not think putting lumber on the free list would greatly affect the northwestern market; that the Standard Oil Company now takes 100,000,000 feet annually out of Canada, on which it receives a rebate, and other quantities are shipped in bond so that the duties obtained do not amount to a very large sum. And those people who think that if lumber is put on the free list that commodity would be cheapened, he said, would be disappointed. It would not affect the price a mill a thousand feet. The effect, another lumberman said, would be merely to render a considerable portion of the northwestern stock that goes east practically valueless, as at present prices there was very little profit in coarse lumber and with another dollar a thousand in favor of the Canadians, that section would be able to supply the eastern market with cheap grades of lumber."

Agitation and organization to the contrary, notwithstanding, it is more than problematical that a Democratic tariff will place lumber on the free list.

A BIG DEAL IN LUMBER.

AS we go to press with the December LUMBERMAN we learn that a deal involving several hundred thousand dollars has been completed, by which a large part of the property of the Georgian Bay Consolidated Lumber Co. passes into the hands of a wealthy American lumbering firm. The controlling interest in the

Georgian Bay Lumber Co. is held by Mr. A. M. Dodge, of New York, and who also has a residence at Waubaushe, the scene of the company's extensive milling operations. The company, which has a capital of \$1,000,000, is one of the wealthiest doing business in the Georgian Bay district, and its limits cover immense areas of country. A large part of its property has been purchased by Merrill, Ring & Co., of Saginaw, Mich., who have an option upon the remainder. Particulars of the transaction are withheld, pending the final completion of the deal. Mr. James Scott, vice-president of the company, when spoken to about the matter, said: "A portion of the property of the Georgian Bay Lumber Co. has been sold to Merrill, Ring & Co., of Saginaw, Mich., and Merrill, Ring & Co. have the option of buying the rest. That is all I feel at liberty to say, as particulars must for the present at least be considered as strictly confidential." Merrill, Ring & Co. are already large operators of Canadian limits, and in April last they purchased from the Dodge estate 500,000,000 feet of standing timber, 19,000,000 logs afloat and the Byng Inlet mill of the Georgian Bay Lumber Co.

EDITORIAL NOTES.

THE Canadian Pacific railway is stretching out its arms not only to the uttermost parts of the earth, almost, by its splendid system of steamships, but it has an eye on the railroad possibilities of the United States. News comes of a reported purchase of land by this company at Sioux City, Ia., indicating, it is thought, the intention of that corporation to reach down into the Missouri valley by means of the Red Wing and Southern railway. The Railway Age remarks that "it would be a curious sight to see this aggressive Canadian company reaching a long arm down to the backbone (stomach) of the west and taking traffic from our own direct lines to haul to the seaboard by its roundabout course over foreign soil; and yet nothing that the Canadian Pacific may do should surprise us now."

WITHIN a period of about three months from August 1 to November 1, Mr. William Renaud, one of the best-known agents of the lumbermen of the Ottawa, has hired not less than 2,500 men. The business of the Renaud's was established in Ottawa twenty years ago by the late Alexis Renaud, and has been carried on since his demise by his sons William and Nelson. A writer in the Ottawa Free Press says that the majority of the men who are hired for the woods are French Canadians whose ages vary from eighteen to forty. English-Canadians do not care to cut logs but prefer to drive horses instead, and are among the best available help for this class of work. In some cases whole families seek work in the shanty for a livelihood during the winter. Some of the men have been in the woods for fifteen consecutive years. The majority of the timber makers are unmarried lads of from eighteen to twenty-five years.

VARIOUS circumstances have combined to give impetus to the work of the lumbermen in the woods this winter. In the Ottawa section the organization of the Moore Lumber Co. placed a new and strong firm in the field who will operate largely this winter the limits of the late David Moore. The purchase by the Shephard & Morse Co. of the Pierce limits is another influence producing similar results. They have already sent large gangs of men to the woods. The Hawkesbury Lumber Co. have made all arrangements to operate with characteristic energy the limits of Thistle, Carswell & Co. The regular operations of J. R. Booth, Bronson & Weston, the Ottawa Lumber Co., and other large firms in the same territory will be, in nearly every case, on a more extensive basis than formerly. Like conditions exist in the Georgian Bay and north shore districts, the opening of new limits and increased operations of both Canadian and American operators making an exceptionally busy winter in these localities. All this foreshadows a busy season for the saw mills of the province when the winter's ice and snows will have melted away. Other saw mills not Canadian will also be enriched by this extra activity of the woodman, for, undoubtedly, the towing of logs to Michigan mills another summer will be conducted on a scale never hitherto approached in the country.



ANDREW McCORMICK, lumberman of Sudbury, states that he has travelled all through the new territory recently sold by the Ontario Government and finds the most of it covered with good pine. The territory yet to be sold embraces all that area which lies between Lakes Huron and Temiscamingue and north of the Canadian Pacific railway. In size it is about as large as that sold, while the amount of timber on it will equal that just sold. At the prices recently obtained the unsold country is worth \$2,000,000 at the very least. This is the last of the timber area in Ontario.

* * * *

The timber of which the new Gilmour mill is to be constructed has something of an historic interest. It is being taken from the famous pine grove on the Gatineau through which the Prince of Wales was driven as the guest of Col. Gilmour in 1860. To facilitate and render more attractive the visit of H.R.H. to the only specimen of the Canadian primeval forest even then existent within easy access of the city, Col. Gilmour had a labyrinth of pretty drives laid out in the grove. The place, too, has long been associated with the pleasurable memories of picnic parties. Now that it is intended to abandon the Chelsea saw mill, the stately pines in the grove are being felled and sawed into dimension timber for the framework of the new mill.

* * * *

Mr. John Charlton, M.P., being asked: How about the assertion that if the export duty on logs had not been repealed the Americans would have given us free lumber to secure its removal, replied: "The assertion if made betrays lack of knowledge as to the real state of affairs. The truth is that the export duty provoked a feeling of resentment and probably prevented lumber being placed upon the free list. It was denounced as an unjust and impertinent tax and was used with much effect by the opponents of free lumber. Had there been no export duty in the way the probability of obtaining free lumber would have been greatly increased. Its influence was most mischievous and detrimental to Canadian interests. The influence of the re-imposition of the export duty upon the free lumber question in the States would probably be so unfavorable as to put free lumber out of the question while the export duty was continued in force. The sentiment in favor of free lumber in the States is strong and gaining, and we can only hinder it by unwise efforts in this country."

* * * *

"I don't look at the mere sawing of the lumber," says P. O. Byram, of New Brunswick, "as the only benefit our country derives from its forests. We all know that manufacturing our lumber and preparing it for market amounts to about the same as cutting, hauling and driving it to the mills. Every thousand manufactured out of the country robs it of so much labor and consumption. It is labor that builds up the wealth of a country; and if labor is not fostered in our own country the people will go where it is. Further, we know that when our lands are cleared of their virgin wealth, and not settled, they grow up a barren waste. Our forests in all parts of the Dominion are fast becoming depleted. Their pine, cedar and spruce will in a few years be a thing of the past. Spruce to-day has dwindled down to batten logs instead of beautiful deal logs as of yore. The only remedy to stay the progress of this disaster is to exact an export duty. The advantages of this policy would be many: Mills would be built, the magnificent streams of the country would be utilized; settlers would be influenced to locate where activity prevailed; all supplying assistance to farmers and pioneers and they in turn being helped by them. We have had enough short-sighted legislation playing into the hands of capitalists instead of encouraging the settlers, farmers and mill-builders of our country to build up our own country."

A gentleman, to whom life in a lumber camp was quite an experience, writing from Napanee, gives the following account of "Hot Hand," a popular game among the shantymen: "My friend Irvine kindly volunteered to take me over to the shanty on Reid's Creek to see how things appeared at night among the motley crowd that composed the gang. As we drew near our ears were greeted with roars of laughter, which indicated that some lively game was in progress. On entering we found that a lot of the "boys" (some of them bearded men of thirty and more) were engaged in the diversion known as "hot hand." A semi-circle of the men stood in front of one seated with a hat in his lap, the victim leaning over with his face in the hat, and his hands, palms out, resting on his hips. While in this position he must receive the vigorous slaps of the men composing the semi-circle until he could "spot" the one who struck last. After receiving a shower of blows he would raise his head, and if he could indicate the one who struck last he was allowed to take his place in the circle and the man spotted became the next victim. The fun consisted chiefly in the mistakes made by the victim in pointing to the one he thought gave the last slap, as some one who did not "make believe" that he gave it by rubbing his hands and assuming the attitude of a striker. An old Irishman assured me that he had often seen this game at Irish wakes. Seven of the shantymen were Oka Indians, whom the boss reported as among the best of the gang. They participated with great zest in the various games of the shanty. In the centre of the shanty was a large fire of pine knots which illuminated the whole interior sufficiently to enable the men to read, play cards or indulge in "hot hand." Around the sides of the shanty were the platforms on which they slept in their blankets, the disrobing consisting simply in taking off boots or moccasins. The men were a remarkably healthy lot, not one missing a meal or losing a day through illness occupied this shanty. From a health standpoint this is certainly a good record."

* * * *

H. H. Spicer, proprietor of the Vancouver Shingle Mill, B.C., probably the largest manufacturer of shingles in British Columbia, is looking around for a fresh outlet for the product of his mills. He has sent samples of his cedar shingles to Japan and also to South America, but he is not hopeful of cultivating a trade with these communities. In Japan labor was too cheap to warrant them shipping them there and in South America the shingles were not used. He had his eye on Ontario and in an interview he said: "I am convinced that Ontario was the market for them, and that a trade would be worked up with that province. At present in Ontario they are using pine, hemlock or eastern cedar shingles, which are much inferior in quality to the red cedar shingles manufactured on the Pacific coast. The principal requisites in first-class shingles, supposing, of course, that they are properly manufactured, are: First, a good average width (say eight to ten inches), which permits of their being laid more rapidly than narrower shingles; second, that when once laid on the roof they will not curl; third, and most important of all, that they be long-lived, (say thirty to forty years) and, at the same time, afford perfect protection to the building on which they are laid. All of these requirements the British Columbia red cedar shingle possesses, as has been repeatedly proven. Owing to the size of the cedar trees here the shingles can be cut much wider than any eastern manufactured shingles, and they always lie flat, the climate not having any effect whatever on them. As to their long-lived qualities, buildings can be seen in Victoria, New Westminster, Langley, Moodyville and other places in this province that were erected by the Hudson Bay Company and others twenty to thirty years ago, and covered with red cedar shingles, and without paint are still sound, and will apparently protect the buildings on which they were laid as many years longer. The fact that the red cedar shingles have gained such a hold in the Eastern States convinces me that in time they will be used as extensively in Ontario, the only drawback to shipping them in right away being the freight rate." What are your opinions as to shipping shingles by sailing vessels to Eastern Canada round the Horn? Do you think it will ever be done to any extent? "In my opinion," replied Mr. Spicer, "not many cargoes will be

shipped this way for some time to come. To do this a large capital would be required, and we should have to saw a year ahead to get enough cut, as a ship would carry a tremendous cargo."

* * * *

Mr. J. W. Hendry, late manager for Mr. Peter McLaren, than whom, perhaps, there is no one more thoroughly posted in the lumber business and Canada's forest wealth, was asked what he thought of the sales of limits recently made by the Ontario Government. "There's a lot of people," said Mr. Hendry, "who talk as if these limits brought too big a price, and they say the Michigan men bid them up too high. I do not think the prices paid at all extravagant under the circumstances. At the present rate of manufacture the white pine trade of this country will be a thing of the past by the end of the present century, or in eight years hence, for lack of material, and should there be any forest fires the time will be shorter. Ottawa Valley produces annually 600,000,000 superficial feet of white pine, most of which goes to the United States. Hewn pine timber has almost ceased to be manufactured, not for want of a market but for want of material. During the past fourteen years the lumberer has been very successful. Ever since the interpretation of Pharaoh's dream many have shared the belief in septennial crises, but two such periods have passed the Ottawa lumberer without any calamity. The Ottawa lumbermen are in good financial circumstances and, being owners of one of the finest water powers in the world and possessed of great energy and business ability, they are in a position to put their shoulders under the handspike in some other business, say mining or manufacturing." In referring to the export duty on logs Mr. Hendry cited Sweden as an instance. "An export duty was at first put on and later lumber exportation was prohibited, and the wood was converted into charcoal, and this was used in the manufacture of Swede's iron, so that the prohibition was not a very great evil after all. When the timber limits of Ontario now being worked under patent revert to the Crown there will be sufficient timber still on them for the manufacture of charcoal, as in Sweden, and in this manner our iron mines might be developed."

* * * *

Hon. H. G. Joly de Lotbiniere, of Quebec, says: "I cannot understand why there should be any doubt as to the wisdom of imposing an export duty on our logs. Many of those, who, with the hope of promoting their personal interest, advocated at one time its removal, are now in favor of its re-imposition. But, let us look at the question as it affects our country at large. In giving us our forest Providence has given us a source of wealth which it is our duty to husband carefully and to turn to the best account. Is it possible that we Canadians should have so little manliness left as to tell our neighbors: "Come, cut down our trees, take them away, manufacture them at home and reap the golden harvest. We don't want it. We have got work enough to occupy us here." What would have become of England if she had invited the world to come and take away her coals and iron and to manufacture them abroad? We ought to treasure our forests, but how much more ought we to treasure the youth of our country, leaving us every year by thousands to seek work in the United States. Shall we force those who still remain with us to leave us too by sending to our neighbors the raw material, the logs, in the manufacturing of which we can procure work for so many? Send away our logs to the States and our mill-hands must follow them. In other words, while we cannot find employment at home for our own workmen, shall we provide work for those of the United States? Our neighbors want our lumber, they must have it, they threaten us with the imposition of higher duties if we insist upon manufacturing our own timber at home. We cannot complain, it is their right. Perhaps they may carry out their threat. As one interested in the exportation of sawn lumber to the States, and naturally anxious to enter it there under favorable conditions, I appeal to those who are answerable for the welfare and prosperity of our country; I implore them to keep our logs here, and with our logs to keep here those who will earn their living by working them, and should I be called upon to pay a higher duty for my sawn lumber exported to the States, I will then pay it cheerfully."

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

WILL lumber be placed on the free list? is a question asked by lumbermen with more than ordinary concern now that the Democrats have come into power. Mr. Cleveland's letter of acceptance of the Presidential nomination is sometimes referred to as very guarded on the tariff question. But, if any one supposes that Grover Cleveland is likely to hedge on this or any other question on which he has strong convictions, and especially after the unmistakable majority of Nov. 8, they may as well be undeceived now as any time. The new president is a man of sound judgment and will doubtless exercise this judgment in touching a matter so essential to the welfare of the country as its tariff. Certain changes, however, may be expected very shortly after the new administration assume the responsibilities of office, and the impression of many is that lumber and wool will be among the first commodities to be placed on the free list. Some lumbermen view this aspect of the question seriously fearing that if lumber is made free without any restrictive conditions such as are placed in the McKinley Bill, that the Canadian Government will take advantage of the situation and meet the agitation in some parts of your country for a re-imposition of the log export duty by promptly placing such a duty on logs coming into this country. Besides, it is contended, in some quarters, that with the one dollar duty now on sawed lumber our lumbermen have all they can do to compete with Canadian cheap grades. Remove this duty and your Canadian lumber would have control of the field in this country. Whilst the situation thus remains unsettled it may be that the lumber trade here will be less brisk than for some time past. This is the fear of some.

BITS OF LUMBER.

A number of lumbermen from this state are prospecting in the timber sections of Ontario.

The lumber season in this state, now closing, has been one of the most satisfactory to our lumbermen for some years.

The big planing mill of Ross, Bradley & Co., at Bay City, is undergoing repairs. This concern did a big business during the past season.

The North Holland mill is to be dismantled and the machinery will be taken to East Tawas and put into the new Holland and Emery building there.

The Saginaw Salt & Lumber Co. has purchased 40,000,000 feet of selected logs from the Merrill-Ring Co. to be cut on the Georgian Bay limits of this company.

The capital employed in the lumber and planing mills of Detroit, as per a recent census bulletin, cover \$1,600,000, employing 1,227 hands and paying \$631,736 in wages annually.

Rough weather has been experienced on the Huron shore this month. One raft containing 4,000,000 logs for Sibley & Bearer went ashore north of Alpena and was only released after considerable difficulty.

The shipments of lumber at Alpena up to Nov. 1 are as follows: 162,321,000 feet of lumber, 3,901,000 lath, 3,737,000 shingles, 401,000 cedar posts and 552,000 railway ties. Chicago has received the bulk of the posts and ties.

Lake rates on lumber have made another advance. They are now quoted at \$2.50 from Bay City to Buffalo and Tonawanda, and \$2 to Ohio ports. From Saginaw a shilling is added to Bay City rates. Almost any time now we may expect navigation to be closed for the season.

O. E. Elesmore, who has recently returned from the Georgian Bay district, says Hurst & Fisher, of this state, have twelve camps with 510 men on the pay roll, receiving an average of \$22 a month, at work on their limits in that territory. The larger part of this money and that necessary for the purchase of supplies is left in Canada.

A chattel mortgage has been placed on file by the firm of York and Tillotson. The mortgage is to run a year and is given on the firm's planing mill property on South Michigan Avenue. It amounts to \$59,557.63, and is given to S. G. M. Gates, Daniel Hardin and Col. A. T. Bliss to protect the interest of a large number of creditors to whom they owe various amounts. Also a bill of sale to the Saginaw County Savings bank of twenty-one acres of land in this city, west side, given to secure the bank for a note given by Levi Tillotson and York and Tillotson, amounting to \$6,200. In justice to York and Tillotson it should be said that their home business is all right and that their factory is doing a good business. The firm is, however, interested in a southern deal with the late C. H. Plummer, whose estate is now in probate, and to guard against any contingency which may arise, the above documents are filed to protect their home business and creditors. There will be no change in the business, which continues as usual without interruption.

SAGINAW, Mich., Nov. 26, 1892.

PICA.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

AT a time when we are hearing on all hands, and from many different parts of the country, of the large numbers of men who cannot find employment, the experience of lumber agents in this section of the Dominion is in striking, and, indeed, pleasing contrast to these conditions. Captain W. O. McKay, of this city, who in his day has hired many thousands of men for the lumber camps, says it is almost impossible this year to nearly complete the required complement of men for the various shanties in the Ottawa and other lumber districts of the province. In the judgment of this gallant lumber captain, "any man who begged in these times, if he was able to work, was a useless incumbrance and jail was too good for him." He has offered \$23 and \$24 a month for log cutters, and states that if they are anything special they can get even bigger money, and all the way from \$15 to \$22 a month is offered for the more general class of work in a lumber camp. Mr. C. D. Chitty, another large employer of shantymen, said that he had orders for men for the shanties and could give as high as \$26 a month, but the men were not to be had, and for any other class of work they were equally scarce. With the opening of new limits along the streams tributary to the Ottawa, together with the regular bush work, it is estimated that there will be fully 7,000 men in the bush in these districts this winter. The wage bill all told including foremen, clerks and agents, for a period of six months' work, which is about the average, will be not less than \$1,000,000.

INDIFFERENT LENGTHS.

J. R. Booth is already making arrangements for extensive repairs to Perley & Pattee's old mill, which he will operate next season in addition to his new mill.

Gilmour & Hughson are being placed at considerable expense in the erection of their new mill at Hull point by having to remove a large quantity of sawdust to get at their wharf.

Between 100 and 200 men have been despatched from here by Capt. W. O. McKay for work in the shanties of McCormick, Irwin & McLeod, a new firm with shanty headquarters at Orillia.

The Ottawa Lumber Co. has closed its mills for the season. Over 10,000,000 feet of lumber were cut, which is far above the average. Shipments throughout the summer were exceptionally good, conditions that will encourage this concern to enlarge their operations in the woods this winter.

Auctioneer I. B. Tackaberry sold this month, from the rotunda of the Russell House, 125 square miles of timber limits situated on the Black River, in the Upper Ottawa district, and on Lake Temiscamingue, known as the Latour limits, the property of the Merchants Bank. They were bought by James Russell, of Renfrew, for \$19,200.

The assignment of T. A. Hodgson, planing mill, is a commercial casualty of the month. The insolvent has been in business since 1885. Of late he has experienced some annoyance from neighbors who have complained of his mill as a nuisance. This fact seems to have prejudiced his business, and, along with a habit of contracting for work at somewhat unprofitable prices, has probably precipitated the present trouble. Liabilities are placed at about \$22,000 and assets \$18,000.

OTTAWA, Nov. 26, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

WE continue to ship lumber to Wilmington, Del., to be used in the building of warships for the United States Government. I have noticed that some of the American newspapers do not take kindly to this intrusion of Canadian lumber into their country for use by the Government of that country. But why not? Who knows better than the shrewd American a good thing when he sees it? And this is where the compliment to British Columbia lumber is evidenced in the present case. A recent shipment for the purpose named comprised 891,000 feet of sized lumber and four spars, each ninety feet long.

COAST CHIPS.

Bush fires have fortunately given us very little trouble the past summer.

Prices have shown a slight decline since the break in the lumber combine.

The Sayward Mill, in Victoria, is to be enlarged to a capacity of 100,000 feet per day.

The good crops in Manitoba and Northwest Territories will increase shipments of lumber from British Columbia.

The cargo of spars to Halifax, N.S., and lumber and timber to Montreal per vessels, is looked upon as the beginning of a new and profitable trade, which is to be desired.

An injunction has been served on Messrs. Hughitt & McIntyre, of Victoria, on behalf of the Esquimalt & Nanaimo

Railway company, to restrain them from running logs down the Cowichan river.

Mr. W. Cyr is likely to close a contract with the Brunette Saw Mill Co. for logs on Stave Lake, where the company have valuable limits.

Representatives of several of our larger mills who have been spending some time in Manitoba and the Northwest Territories report trade as fair.

A boom of logs, chains, and all else was lately lost at Rogers Island, and another at Toby Inlet. These represent almost a summer's work by the respective owners.

The British barque George Thompson is loading lumber for Australia at the Brunette saw mills. She will carry about 1,000,000 feet and sail at the end of this month. This is looked upon as a favorable indication of the trade improving.

The Royal City Mills are getting out between 200,000 and 300,000 feet of lumber to be used in the construction of the new Canadian Pacific Co.'s cannery at Lander's Landing. The same mills are also cutting a special order of extra choice lumber for Montreal.

The new saw mill being erected by Messrs. Hamill & White, at Sydney, North Saanich, is nearly completed. The machinery is being furnished by the Wm. Hamilton Manufacturing Co., of Peterboro, and has already arrived. Another and a larger mill, it is said, will be built by the same concern alongside of the present one for the export trade.

The lumbermen of the coast are hustlers. Recently the Sayward mill received an order from the contractor of the drill hall for a number of pieces of timber seventy-eight feet long. There were none in Victoria of the required length. The Sayward people dispatched a steamer to the logging camp, 200 miles to the north, for a boom of logs, which was towed to the mill. Within seven days after the receipt of the order eleven sticks 78 feet long, 9x6, were cut and delivered at the building.

Thomas J. Bentley, of the firm of Bentley & Fleming, Halifax, N.S., has purchased a cargo of spars from the Hastings Mill. The spars are to make about 800,000 ft. and 200,000 ft. of cedar for house furnishings. This firm has been purchasing its spars from Boston dealers who had them brought in from Puget Sound, usually by rail. This was found rather expensive and as the cost of spars from Michigan and Central Canada is increasing, his firm thought it would be more advantageous to come to the Pacific coast and purchase for themselves. They supply almost all the spars used by the Nova Scotia shipbuilders, and so long as wooden ships are built the trade will remain. The trade will probably amount to a cargo a year.

NEW WESTMINSTER, B.C., Nov. 22, 1892.

NEW BRUNSWICK LETTER.

[Regular correspondence CANADA LUMBERMAN.]

A FAIR trade has been done this season in shipments of lumber to the United Kingdom and the continent. Up to the present time the shipments to the United Kingdom have been heavier than last year. Very little has been sent to the continent. About 12,000,000 feet more spruce have been shipped to the United Kingdom, and about 3,000 tons more timber than up to this date last year. Freights have been low and a larger proportion of the carrying of lumber has been done by steamers than usual. Almost double as much has been carried by steamers as was carried by wooden vessels.

Byran, of Byram Mills, has just started a new lath machine and expects to give employment all winter if, as he says, he can make buckle and strap meet.

Not nearly as large operations will be carried on this winter in spruce on Grand River, Salmon River and many other streams owing to scarcity of lumber and cedar operations being curtailed.

What is known as the River Plate as also the West India branch of the lumber trade has been very dull. Towards the end of the season the English markets commence to flatten out, leaving a considerable stock of spruce deals and birch logs on hand.

The total shipments across the Atlantic from St. John to date this year amount to 129,000,000 feet. Last year they amounted to 117,000,000. It is thought, however, that owing to the early stopping of shipments there will not be a very great increase shown in the amount of lumber shipped over other years.

I have heard of some extraordinary returns shown by shippers. In one case when the cargo was disposed of the shipper had remaining as his profit about seven cents on 1,000 superficial feet of deals. Other cases could be named where the shipper was actually out by the transaction. An increase in shipments, however, over last year, made up to some extent for the reduced profits.

ST. JOHN, N.B., Nov. 22, 1892.

THE NEWS.

ONTARIO.

—McLachlan Bros., of Arnprior, will have about 1,000 men in the woods this winter.

—Vigars Bros., Port Arthur, have closed their mill after a very successful season's work.

—At Baysville, Muskoka, the saw mill of H. McQuarrie was blown up by a bursting boiler.

—Laurance Bros., of Walford, have purchased Sutor and Gordon's stave mill at Sutorville.

—A gang of twenty men are at work on the old Picanock's limits of the Gilmour Lumber Co.

—M. Brennan & Sons, Sundridge, have put an automatic shingle saw-filing machine into their mill.

—Wm. Belshaw and John Douglas, two builders in Toronto, are missing. Financial troubles are alleged as the cause.

—P. Larmonth, assignee, has been instructed to sell by auction the plant and mill of the Hodgson estate, Ottawa.

—H. G. Merkley & Son, lumbermen, Morrisburg, have dissolved after a partnership of fifteen years. The senior member of the firm retires.

—Wm. Campbell has been arrested, charged with making false entries in the books of Keyes & Co., lumber dealers, Niagara and Hamilton.

—R. Thackeray, planing mill, Ottawa, is shipping to England. A recent shipment consists of 700 doors and 60,000 feet of mouldings for Liverpool.

—Business at Webbwood is brisk, thanks to the activity of lumbermen in the woods in that section. About 800 are at work in the immediate district.

—Neil McIntyre will move his saw mill from the 10th con. of Kincardine to the 12th con. of Greenock. He will run a stave factory in connection with the saw mill.

—Denis McMartin, manager for the Dickson Co., at Harwood, says that during the season just ended some 10,000,000 feet were cut—a large cut for a mill of the capacity.

—The estate of Hagerman & Co., of Toronto, who made an assignment, shows liabilities of \$39,000. A nominal surplus of \$8,500 is shown. Real estate ventures brought the trouble.

—T. W. Kenny, of Arnprior, has interviewed the Provincial Board of Health officers, asking the Government to send a physician to the infected section of the lumber camps, where diphtheria is said to be prevalent. The nearest physician is at Egansville, some forty miles distant. Dr. Hodgets has been sent from Toronto.

—A noticeable decline in canal traffic between Ottawa and Kingston has taken place of late years. Where in other years the forwarders used to hire American barges and send lumber and other stuff to the States and Kingston via the canal, they now use their own barges and ship to Montreal and thence up the St. Lawrence.

—The schooner Sligo, laden with lumber, started from Conlon Bros' dock, Little Current, and just got around the north end of Picnic Island when she ran on a shoal. The tug Frank Reid endeavored to take her off, but it was no "go," and the captain was compelled to unload about half his cargo before they could do anything with her.

S. G. Parkin and partners, of Lindsay, have begun the construction of a new shingle mill to replace the one recently burned. The mill will be 45x100 feet in size; two dry kilns, 60x85 feet; engine and boiler house, 35x35 feet; dynamo room, 25x35 feet; and the office, 20x35 feet. All these buildings will be constructed of stone and brick, with cement floors and iron roofs, and will be as fire-proof as it is possible to make them. The engine room will contain three engines—one to drive the mill, one to drive the fans for the dry kilns, and a large Corliss engine to drive the electric plant. The machinery for the shingle mill will be the latest and most improved, and the total cost of the buildings and plant will be about \$30,000.

—At the Chancery sitting, at Barric, on November 8, Hon. Justice Meredith presiding, the case of Heath vs. The Whaley Lumber Co. occupied nearly all day. The plaintiffs and defendants having a quantity of logs to drive on a creek to Vernon Lake, in Muskoka, agreed to do the work in concert, jointly sharing the expense. The agreement was reduced to writing, but the plaintiff claims the relative liability was to depend upon the number of pieces, and that the last line of the written agreement was either added subsequent to signing it or was not read by the defendants when the two copies were being read in comparison and signed. The line in question stated that the sworn Government returns should be the basis of settlement. This was where the two lumber firms split, and the action is brought principally to recover payment of the difference arising out of the two modes of computation. His lordship reserved judgment.

—An Ottawa dispatch says: A new saw mill is now being constructed near Calumet by Messrs. Severe Belanger and Pierre Charette, who formerly operated a mill at Gatineau Point. The boiler and part of the machinery went up the river this week, and a large force of men are engaged at the work. No effort will be spared to have the mill in working order as early as the season opens in the spring. Never in the history of the oldest resident of Gatineau Point have the prospects for the winter seemed brighter. Workmen of all classes are in great demand and at fair wages. Every other winter a great number were forced to stay around the village idle, but this year every available work is taken up. Nearly every day employers of labor visit the village looking for men, but none are to be had. Business is brisk and everyone feels pleased.

—An Ottawa dispatch to the Mail a week ago tells of the sufferings endured by five shantymen, Jean Thivert, Michael Burke, Christopher Dunn, John T. Hogan and Geo. and Jas. Dogherty who had made their escape from the diphtheria epidemic on some parts of the Madawaska. They set out to tramp it home, although the distance to the nearest railway station, Cobden, on the Canadian Pacific Railway, was eighty miles. They had expected to secure financial help at a place called Basin Point, but were unsuccessful, and were obliged to continue their journey on foot. They endured a severe rain and snow storm and when they had reached Cobden were nearly perished with cold and hunger, having had only three meals in three days. Here they telegraphed to their friends and received assistance enabling them to proceed with more comfort the rest of the journey. They say the disease in the camps is "black diphtheria."

QUEBEC.

—J. E. Genereux, a store-keeper and lumber dealer at Matane, is asking the indulgence of his creditors.

—The new steam kiln of the Eddy factory, at Hull, comprises ten departments, each capable of holding 75,000 tubs or pail staves.

NEW BRUNSWICK AND NOVA SCOTIA.

—T. Atkinson, Leicester, N.S., lumber, has assigned.

—James O'Rourke, lumberman, St. Martin's, N.B., one of the members for St. John in the last local legislature, has assigned. Liabilities \$12,000.

—The Moss Glen Manufacturing Co., with \$25,000 capital stock in 500 shares, are applying for incorporation to manufacture lumber, matches, etc., at Moss Glen, Kings County, N.B.

—Last blocks, cut from the best rock maple, are being shipped from New Brunswick to the United States. One dealer has about 100 carloads ready for shipment. Some trouble has arisen as to the correct duty to be levied. The American manufacturers claim that it should be twenty per cent. of the American market rate, while the customs authorities hold that twenty per cent. of the Canadian market rate is sufficient. The matter is under consideration.

—Pickles and Mills, of Annapolis, N.S., are making extensive preparations for lumbering this winter. A large gang of men will be employed to log the district around the Paradise waters. Clark and Co., of Bear river, are also preparing to go into the same industry quite heavily. They will employ a large number of lumbermen to get pulpwood and lumber ready for shipment. Owing to low water in the lakes and rivers most all the large saw mills have been closed down for some time.

—The story comes of a big cut of lumber at the mill of Alex. Gibson, Marysville, N.B. In ten hours 144,603 feet of lumber passed through one gang, and at six o'clock was piled up in the yard dressed and ready for the market. The larger part of this cut was made in the afternoon, there being only 59,000 feet cut at noon, thus showing that the mill was not running at full capacity. After dinner, Mr. Alex. Gibson, Jr., who was in charge, had more power put on, being determined to put up a record for fast cutting that would stand for some time to come. The Chatham Advance claimed that Mr. Snowball's mill, at Chatham, held the record last year for fast cutting, it having cut 93,000 feet of lumber in one day. Mr. Gibson's mill in five hours almost cut as many feet of lumber as Mr. Snowball's mill did in one whole day. In the lath mill on the same day 80,000 laths were cut by one lath machine. A gentleman who was present states that in four minutes five bunches of laths were cut and bunched ready for market.

MANITOBA AND THE NORTHWEST.

—Although the available timber areas in the Northwest Territories are somewhat limited, there is a rapid development going on in the lumber trade in that section. The Eau Claire and Bow River company has cut 3,000,000 feet this year, which is fully up to the average of past years. In addition to this the company cuts about 10,000 lath and thirty cords of wood a day during the season. The company will have between sixty and seventy men in the woods this winter. The limit, consisting of 500 square miles, is in the vicinity of Banff. Last year

the season's work was principally upon the Spray. Most of the limit is reached by tributaries of the Bow, but the haul is becoming longer every year. During the coming winter this company, working in conjunction with the Calgary Water Power Co., will make extensive repairs and additions to the present wing dams on the Bow. Up to this time about \$25,000 has been spent upon the river, exclusive of the latter company's new electric light station, which was completed a short time ago. This sum includes the cost of dams, wing dams and embankments necessary for the storage of logs at the mill. Considerable blasting of rocks in the river has been done in order to facilitate the driving of the logs down to the mill. The Calgary Water Power Co. has charge of the planing mill and electric light business in connection with the latter.

FIRES AND CASUALTIES.

FIRES.

Wiseman's saw mill at Havelock, Ont., was burned a fortnight since.

Joseph Cooper's planing mill, Bracebridge, Ont., burned. Loss \$3,000; no insurance.

Dunn & Co.'s saw mill, at Grand Bay, N.B., was burned a week ago. The loss is estimated at about \$25,000; fully insured.

The branch storehouse of the Rathbun Co. at Peterboro, Ont., was completely destroyed by fire the middle of November. The building burned was 30x55 and owned by a Mr. Yelland. Loss \$800.

CASUALTIES.

John Rooney, of Coverdale, N.B., was drowned while at work handling lumber on one of the piers at Moncton.

A young man named Cook, from near the Severn, was killed in one of the camps of Mickle, Dymont & Son a week ago.

Charles Goodhue, an employee in Morrison's mills, Caribou, N.B., was killed by a railway train. He had been drinking.

A woodman named Joseph Fournier has reached Ottawa suffering with a fractured leg, the result of an accident on the Madawaska river.

While working in the woods at the McLachlan Bros. camp, near Sundridge, Ont., Israel Marvis was struck by a falling limb and instantly killed.

Wm. Matheson, while assisting at the fire at Wiseman's saw mill, Havelock, Ont., was struck by a scantling and it is feared his injuries will prove fatal.

J. C. Davidson, foreman in Brennan's saw mill, Sundridge, Ont., will likely have his arm amputated as a result of injuries received by having it caught in the gearing.

A man named Murray, employed in Davidson & Hay's mill at Cache Bay, Ont., dropped dead of heart disease. He came from Gravenhurst, and was about 55 years of age.

A Powassan young man named F. Gerher lost his life while at work on Wm. Milne's new mill at Trout Creek, Ont. He fell off the frame of the mill a distance of twenty-five feet, striking his head on a rock.

News has been received of the death of Wm. VanAlstine, of Wingham, Ont., who for fifteen years has resided at Arkona, Mich. Deceased worked the greater part of his time in the woods and it is surmised he was killed.

Andrew MacFarlane, foreman of the machine department of the Wm. Hamilton Mfg. Co., Peterboro, Ont., is suffering from a severe hip wound, the result of a fall from a ladder when at work on a window at his house.

Wm. H. Crowe, formerly of Peterboro, Ont., who only a month ago accepted the position of foreman in Dowling & Leighton's cabinet factory at Harriston, met with a terrible accident a fortnight later, having both his hips broken, besides being severely bruised.

A shocking fatality occurred a week ago in Buell, Orr and Hurdman's mill, Ottawa. Joseph Briere, a filer, was caught in a pulley shaft going at four hundred revolutions per minute and carried round and round, his body each time crashing with awful force against the mill floor until his left arm was wrenched from its socket and his body thrown lifeless to the ground. He was 28 and leaves a wife and two children.

Two serious accidents occurred in Hurdman's mill at the Chaudiere. The first was to a workman named Roy, who was fixing a pulley, when he slipped on a roller and his head came in contact with a carriage rope, sustaining a very severe scalp wound. The second accident took place at the far end of the Hurdman yard, and was more serious. Majoire Piche, 22 yrs. of age, engaged in loading timber from the firm's trucks on to the slides for shipment, was working at a height of over twenty feet from the solid rock below, when a couple of boards slipped and struck him, knocking him off the slide platform to the rock below. It was found that his right arm was broken and that he had sustained a cut in the face and head.

TRADE REVIEW.

Office of CANADA LUMBERMAN, } November 30, 1892. }

THE GENERAL SURVEY.

ANOTHER year's business is fast drawing to an end. Anxiety has been apparent throughout the month, both here and in the States, to complete the burden of the season's shipping before navigation will have closed.

Saw mills are about all closed down and the men transported to the woods for the winter. This is the situation in our own country beyond any question. Not for some years has activity in lumber quarters in this respect been more remarkable.

Home trade in Ontario is fair with an improved outlook for the spring. Lumber in Toronto is quiet, but this is not disappointing.

The tonnage of sailing vessels arriving at Quebec up to Nov. 10 shows an increase from 221,893 to 307,301 tons, and in ocean steamers an increase from 613,555 to 732,836 tons as compared with the corresponding period of last year.

Table with 3 columns: Year (1890, 1891, 1892) and various lumber types (Waney white pine, White pine, Red pine, Oak, Elm, Ash, Birch and maple).

In British Columbia the situation possesses no unusual features. The export trade is not over brisk, while local trade is fair and improving, particularly from Manitoba and the Northwest.

A good trade has been the experience of United States lumbermen with few exceptions. Just now the situation is a little unsettled, owing to possible tariff changes.

Denny, Mott & Dickson in their November wood circular, report from London, Eng., as follows: "Business during the last month has been fairly steady, though lacking animation. There is a growing conviction that stocks are generally held at a sound level, and although profits continue inadequate, the feeling that business must mend is spreading, and itself tends to create the better developments which are hoped for."

A good trade is reported from Hamburg, Germany. The cholera scare, which affected local trade and traffic, has nearly disappeared and a satisfactory business is anticipated in the future.

TORONTO, ONT.

TORONTO, November 30, 1892. CAR OR CARGO LOTS.

Table listing various lumber products and their prices in Toronto, Ontario, for November 30, 1892.

Table titled 'YARD QUOTATIONS' listing prices for various lumber products like Mill cull boards, Shipping cull boards, Scantling and joist, etc.

OTTAWA, ONT.

OTTAWA, November 30, 1892.

Table listing prices for various lumber products in Ottawa, Ontario, for November 30, 1892.

MONTREAL, QUE.

MONTREAL, November 30, 1892.

Table listing prices for various lumber products in Montreal, Quebec, for November 30, 1892.

BOSTON, MASS.

BOSTON, Mass., Nov. 30.—Nothing specially noteworthy has characterized the lumber market this month.

Table titled 'EASTERN PINE—CARGO OR CAR LOAD' and 'WESTERN PINE—BY CAR LOAD' listing prices for various lumber products in Boston, Massachusetts.

OSWEGO, N.Y.

OSWEGO, N.Y., Nov. 30.—The lumber market maintains the average activity for this period of the year.

Table listing prices for various lumber products in Oswego, New York, for November 30, 1892.

Table listing prices for various lumber products like XXX, 18 in. pine, Clear butts, etc.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Nov. 30.—The extra life that has marked affairs at the lumber docks as the month has progressed has been due, largely, to the anticipated closing of the canal not later than Dec. 5.

Table listing prices for various lumber products in Buffalo and Tonawanda, New York, for November 30, 1892.

ALBANY, N.Y.

ALBANY, N.Y., Nov. 30.—A feature of the month is the strength shown in white pine prices. Activity in shipping has prevailed all month.

Table listing prices for various lumber products in Albany, New York, for November 30, 1892.

SAGINAW, MICH.

SAGINAW, Mich., Nov. 30.—Business in lumber at this port is dull for the reason that the season's trade has been so thoroughly cleaned up, that there is, as a matter of fact, very little lumber here to sell.

Table listing prices for various lumber products in Saginaw, Michigan, for November 30, 1892.

OSWEGO, N.Y.

OSWEGO, N.Y., Nov. 30.—The lumber market maintains the average activity for this period of the year.

Table listing prices for various lumber products in Oswego, New York, for November 30, 1892.

Table listing prices for various lumber products like Clear, 1/2 in., Select, 1/2 in., etc.

NEW YORK CITY.

NEW YORK, Nov. 30.—A shrinkage in lumber transactions is observable as we near the close of the season, and these conditions will probably prevail for some little time.

Table listing prices for various lumber products in New York City, for November 30, 1892.

THE MOSSOM BOYD TIMBER LIMIT SALE.

OUTSIDE of the Government sale of timber limits, held in October last, no sale, for some time, has created wider interest among Canadian lumbermen than that of Mossom Boyd & Co., of Bobcaygeon, which took place at the Mart, Oliver, Coate & Co., auctioneers, Toronto, on November 23. Owing to the death of a member of the firm it became necessary that this method of winding up the business should be adopted. Commendable judgment was exercised in making the sale widely known, and following closely after the sale of Ontario Government limits, very satisfactory prices were secured. The property consisted of the limits described below together with certain valuable saw mill property.

Davidson & Hay, of Toronto, were large purchasers, securing the whole of the Boyd limits in the Nipissing district. Howry & Sons, of Michigan, who are already large holders of Canadian limits secured a considerable section of the property. The highest price paid per square mile was \$11,700, given by Davidson & Hay for part of their purchase. The total purchases aggregated the sum of \$771,256.24; Davidson & Hay paying \$451,216.66, and Howry & Sons \$232,000.

The following is a complete description of the limits sold with details of purchase, prices per mile, and total prices in each case:—

Lot 1—Timber berth No. 2, covered by license No. 3 of season 1891-2 and license No. 66 of season 1892-3, and occupying the space projecting eastward in Lake Nipissing from timber berth No. 11, and that part of timber berth No. 12 situate south of West Bay. This berth is divided into four parcels as follows:

Parcel A—Bounded on the south by the north branch of the French river, on the west by berth 11, on the north by a continuation in a straight line of the south boundary of berth 12, on the east by a line parallel to the east boundary of berth 11, at a distance of six miles therefrom. This parcel, containing an area of 23½ square miles, was sold to Davidson and Hay, Toronto, at \$6,600 per square mile, or a total of \$155,100.

Parcel B—Bounded on the north by Lake Nipissing, on the west by berth 12, on the south by a continuation in a straight line of the south boundary of berth 12, on the east by a line parallel to the east boundary of berth 12, at a distance of six miles therefrom. This parcel, containing an area of 16¾ square miles, was sold to Davidson and Hay, Toronto, at \$7,900 per mile, or a total sum of \$131,666.66.

Parcel C—Bounded on the south and east by the north branch of French river, on the west by parcel A, on the north by a continuation in a straight line of the south boundaries of berth 12 and parcel B. This parcel, containing an area of 7½ square miles, was sold to Davidson and Hay, Toronto, at \$11,700 per mile, or a total sum of \$87,750.

Parcel D—Bounded on the north and east by Lake Nipissing, on the west by parcel B, and on the south by a continuation in a straight line of the south boundaries of berth 12 and parcel B. This parcel, containing an area of 19¾ square miles, was sold to Davidson and Hay, Toronto, at \$3,900 per mile, or a total sum of \$76,700.

Lot 2—Timber berth in the township of Sherbourne, covered by license No. 46 of season 1891-2 and No. 7 of season 1892-3, composed of lots 17 to 25 inclusive, in concessions 1, 2, 3, 4, 5, 6 and 7 inclusive. This berth, containing an area of 10 square miles, was sold to Howry and Sons, of Saginaw, at \$7,800 per mile, or a total of \$78,000.

Lot 3—Timber berth in the township of Monmouth, covered by license No. 42 of season 1891-2 and No. 3 of season 1892-3. This berth is divided into two parcels, the first parcel of which was sold as follows:

Parcel 1—Lots 1 to 20 inclusive in concession 1; lots 2 to 20 inclusive in concession 2; lots 2 to 20 inclusive in concession 3; lots 2 to 20 inclusive in concession 4; all south of Burnt river of lots 2 to 20 inclusive in concession 5; all south of Burnt river of lots 2 to 20 inclusive of concession 6. This parcel, containing an area of 14 square miles, was sold to Howry and Sons, of Saginaw, at \$11,000 per mile, or a total of \$154,000.

Lot 4—Timber berth in township of Glamorgan, covered by license No. 45 of season 1891-2 and No. 6 of season 1892-3. This berth was divided into three parcels, two of which were sold as follows:

Parcel 1—Lots 1 to 20 inclusive in concession 8; lots 1 to 20 inclusive in concession 9; lots 1 to 10 inclusive in concession 10, and lots 13 to 20 inclusive in concession 10. This parcel, containing an area of 9 square miles, was sold to A. C. Macdonell at \$2,700 per mile, or a total of \$24,300.

Parcel 2—Lots 1 to 20 inclusive in concession 11, lots 1 to 20 inclusive in concession 12, and lots 1 to 20 inclusive in concession 13. This parcel, containing an area of 9½ square miles, was sold to A. C. Macdonell at \$3,700 per mile, or a total of \$34,533.33.

Lot 5—Timber berth in the township of Glamorgan, covered by license No. 41 of season 1891-2 and No. 2 of season 1892-3, composed of lots 21 to 35 inclusive in concession 1; lots 22 to 29 inclusive in concession 2; lots 32 to 35 inclusive in concession 2; lots 22, 24, 25, 29 and 35 in concession 3; lots 22, 23, 25, 29 and 35 in concession 4; lot 23 in concession 5; lots 21, 22, north part 26 and 27 in concession 6; lots 21 to 24 inclusive and lots 27 to 32 inclusive in concession 7, containing an area of 8½ square miles, was sold to J. L. Harvey and Son at \$2,300 per mile, or a total of \$19,550.

Lot 6—Timber berth in the township of Snowdon, covered by license No. 43 of season 1891-2 and No. 4 of season 1892-3. This berth is divided into four parcels, of which parcel No. 4 was sold. This parcel contains lots 16, 25, 26 and lots 28 to 33 inclusive in the 12th concession; lots 24, 26 and 33 inclusive in the 13th concession; lot 30 in the 14th concession. It contains two square miles, and was sold to A. C. Macdonell at \$2,220 per mile, or a total of \$4,400.

Lot 10—Mill site at south-east bay of Lake Nipissing, comprising the westerly portion of lot No. 2 in the 27th concession of the township of Himsforth containing 36 acres, and the south-easterly portion of Lot No. 4 in the 28th concession of the same township containing 20 acres, and the southerly portion of lot No. 7 in the 28th concession of the same township; also Island "E" in Lake Nipissing, lying close to the lands above mentioned. This lot was sold to Alex. Dixon at \$450.

Lot 14 contained the following lands held under mining patents, viz.: lots 15, 16 and 17 in the tenth concession of the township of Sherbourne, 195 acres. Sold to Walter Gow at \$4.75 per acre, or \$926.25.

In addition to this there were also sold dry pine lands in the township of McKim to J. Stewart for the sum of \$3,900.

CANADIAN LUMBER IN SHIP-BUILDING.

TWO facts of interest to lumbermen are recorded in our British Columbia letter of this month. Fact one tells of continued shipments of lumber from the coast province to the United States to the order of the U.S. navy. It will be remembered that when the first shipment for this purpose was made American newspapers endeavored to explain away the fact on the ground that a cut in prices had been made to bait the Yank, who dearly loves the almighty dollar, notwithstanding his record as a protectionist. Even this would have been a compliment to the value of British Columbia timber. But the correct explanation is to be found in the quality of the timber itself. The United States navy have been unable to find any timber so well adapted to use in the construction of warships as that of the Coast province, and they are buying it because it is the best. For the same reason Bentley & Fleming, of Halifax, N.S., travel all the way to British Columbia to purchase a cargo, having found the material better and cheaper than the Puget Sound lumber, which they had hitherto used. Ours is a country worth knowing.

A BIG OPPORTUNITY.

THE Tretheway Falls Shingle Mill estate, (a new mill on Muskoka waters) is to be wound up by Sheriff Bettes, of Bracebridge, Ont., whom address for particulars. Here is a big opportunity for a man of small capital, or one wishing to move a saw mill into a good timber country.

LOSS OF THE HERCULES.

THE Hercules, which left Midland, Ont., on Nov. 4, loaded with lumber for Sarnia, is a complete wreck and a total loss to her owners, F. McGibbon & Sons. She encountered a storm in Michael's Bay, Manitoulin Island, and the crew had barely time to escape before the boat went to pieces. The cook was drowned.

PERSONAL.

Mr. Alonzo Wright, the King of the Gatineau, as his eastern friends call him, is a sufferer from heart weakness.

Mr. E. J. Lynn, of Detroit, and J. E. Turner, of Bay City, Mich., were among the callers at the LUMBERMAN office this month.

Mr. J. C. Cox, of Liverpool, England, son of the well-known lumber merchant, is one of the most popular of the many popular visitors who spend more or less time in Ottawa. Before leaving for home during the past month his friends at the Capital made him the recipient of a valuable garnet set in a

gold ring as a token of regard and esteem. The presentation took place at the Russell, where a pleasant evening of song and speeches was afterwards spent.

Mr. Mossom Boyd, of Bobcaygeon, Ont., has spent considerable time in the city during the past month in connection with the firm's sale of timber limits which took place on the 23rd ult. To a LUMBERMAN representative Mr. Boyd expressed himself as well pleased with the results of the sale.

Robert Farley, one of Ottawa's oldest and most respected citizens, died at the residence of his son-in-law, Mr. William Bottomly, the early part of November. He was from 1859 until 1886 Crown Lands agent of the Quebec Government when he retired and was succeeded by his son, Mr. R. W. Farley, of Hull.

TRADE NOTES.

The "Camel" brand belting manufactured by F. Reddaway & Co., Montreal, Que., can with confidence be recommended to manufacturers. It has stood the test of experience and what better test can be asked?

The Waterous Engine Works Co., of Brantford, Ont., are having a large sale for their hand mills this fall. They report under date of Nov. 26, sale of one large band mill, with steam feed carriage and tools, to Mickle, Dymont & Co. to be placed in their mill at Gravenhurst early in the spring, and another band mill and outfit of tools for Baker & Son, of same place. Dick & Banning, of Winnipeg, Man., will have a complete band mill outfit for their mill at that point from the Waterous Co.

COMING SALES.

Suckling & Co., auctioneers, Toronto, will offer for sale at their warerooms on Tuesday, January 10, 1893, two valuable timber berths on the Wahnapiatae river, easily accessible by C.P.R. main line.

At the Russell House, Ottawa, there will be offered for sale on January 12, 1893, a number of valuable timber licenses and limits situate in the Province of Quebec. Particulars are given in an advertisement in these pages.

John Irvin, of Brampton, Ont., is advertising by private sale a saw mill and certain quantity of lumber; and "X," care of CANADA LUMBERMAN, asks for customers for four berths of virgin timber near the Georgian Bay.

The sale of limits by the Crown Lands Department, of the Province of Quebec, takes place at Quebec on the 15th inst. A study of the list of limits as given in our advertising pages will show the importance to be attached to this sale.

Mossom Boyd & Co. will have an auction sale of shingle timber at the Benson House, Lindsay, Ont., on Wednesday, December 28. Large quantities of dry pine, lying pine, cedar, etc., suitable for shingles and bill stuff will be found on the berths advertised.

NEW PUBLICATIONS.

"The Woodworker's Manual," by C. R. Tompkins, M.E., a writer whose articles have at various times appeared in these columns, is a treatise upon the best practical methods of constructing and arranging wood-working plants, together with practical instructions for the care, management and preservation of the machinery. Mr. Tompkins is known not only as a clear and vigorous writer, but he has a practical knowledge of the subjects on which he writes: in a word, when he writes on mechanical topics, he knows whereof he speaks. The work before us comprises sixty octavo pages, and is published by the John A. White Co., Dover, N.H.

"Useful Tables for Business Men," is the title of a handbook of interest and other commercial tables by C. A. Milliner, that will, we believe, be highly valued by business men everywhere. The examples calculating questions in compound interest, annuities, sinking funds, and other like problems are so clear and comprehensible that they come within the grasp of any man having an intelligent grasp of figures. And this is but one of the many commendable features of the book. From large business firms, which have used the book, it carries very flattering commendations. Mechanically the work is a credit to printer and binder. By mail, prepaid, cloth, \$1.00; leather, \$1.25. C. A. Millener, Deseronto, Ont.

A GREAT LOSS!

If you have any Pipes or Boilers uncovered you are losing on same at the rate of 80 cents every year on each square foot of surface exposed. By having them covered with our MINERAL WOOL SECTIONAL COVERING you will save 85 per cent. of this loss. The saving thus effected in fuel will in one year more than pay the cost of covering, which we guarantee to last as long as the pipes. Our covering is the best fuel saver on the market.

CANADIAN MINERAL WOOL CO., LTD., 122 Bay St., Toronto

WILLIAM FOSTER
Lumber and Commission Merchant

RECEIVER AND FORWARDER OF
LUMBER, LATH AND SHINGLES

... CORRESPONDENCE SOLICITED ...

OWEN SOUND, ONT.

A Good Independent CONDENSER

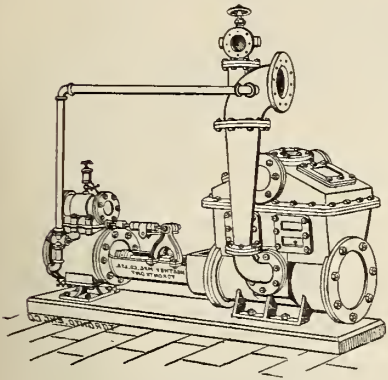
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IF YOU ARE WORKING YOUR
ENGINE HIGH PRESSURE

DON'T DELAY, BUT WRITE US PROMPTLY

NORTHEY MFG. CO., Ltd.

MANUFACTURERS . . .

TORONTO, ONT.



OUR INDEPENDENT
CONDENSER

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail.	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail.	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickie	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar	
Blind River, Ont.	Blind River	Blind River Lumber Co.	Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 16m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Wholesale and Retail.	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Shingles, Wholesale	
Waubushene, Ont.	Waubushene	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Lumber, Wholesale and Retail.	Waubushene mill, stn., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail.	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	White and Red Pine Lumber, Bill Stuff, Lath and Shingles.	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Steam, Circular, 6m
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	Steam, Circular, 25m
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 4m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Water, Band and Circular, 100m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Com.
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Steam, Circular, 25m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail.	
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Com.
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail.	
London, Ont.	London	Gordon, James	Exp. and dr. in Am. Hwds. made to specification	Steam, Band and Circular, 100m
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol. Cherry, White Ash, Hardwoods, Wholesale	Steam, Circular, 40m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 20m
Norman, Ont.	Norman	Cameron & Kennedy	Lumber, Wholesale and Retail.	
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale	Com.
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles.	Steam, Circular, 20m
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol. Lumber, Wholesale	Com. Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakay, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hwds., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

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The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

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WE HAVE WASTED
E ARE WASTING
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OUR GRAND
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UNLESS THE BAND
SUPPLANTS
THE CIRCULAR..

A 14-GAUGE BAND SAW SAVES OUT OF AN 8-GAUGE
CIRCULAR'S SAWDUST PILE 5 ONE-INCH BOARDS ON
EVERY 32 CUT.



YOU'll Be Sorry
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without a
BAND MILL

DISCERN THE SIGNS OF THE TIMES

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THE CHANGE TO THE
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ORDER YOUR MILL EARLY BEFORE THE RUSH AND AVOID DISAPPOINTMENT.

HAVING DECIDED TO CHANGE, INVESTIGATE THE MERITS OF OUR BAND MILL.

"NONE SURPASS THE WATEROUS"

IN QUANTITY AND QUALITY OF CUT

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TRUE WHEELS

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MT. PLEASANT, CLARE, REED CITY
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AND
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The last two named are reached by the Company line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from
NEW YORK BUFFALO MONTREAL TORONTO
to ST. PAUL, DULUTH and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and a great deal of information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., General Manager. W. F. POTTER, Gen'l. Sup't.

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GENERAL OFFICES: SAGINAW, MICH.

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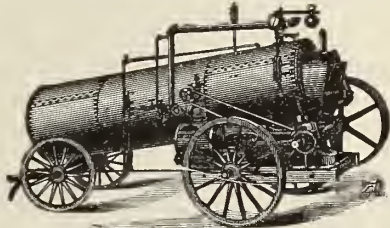
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MACHINE KNIVES

OF EVERY DESCRIPTION FOR

Planing, Moulding and Stave Cutting

Send for Price List

PETER HAY, GALT, ONT.

A PARTNER'S DEATH

IN every partnership there are two factors of great importance—the managing brain and the capital employed—and if death removes either the business must suffer. It often happens that the brains belong to one man and the capital to another. If the manager dies the capital is worth less than before, and if the capitalist dies and his capital is withdrawn, the manager is crippled. It is clear that each has an insurable interest in the life of the other, because the profits of each depend in part upon the life of both. The firm should, therefore, insure for the benefit of the business on either the ten-twenty plan or the modified natural premium life of the Manufacturers'. These are the plans best adapted to suit the requirements of such cases. Let this statement be tested by comparison.

The Manufacturers' Life Ins. Co.

Corner Yonge and Colborne Sts., Toronto

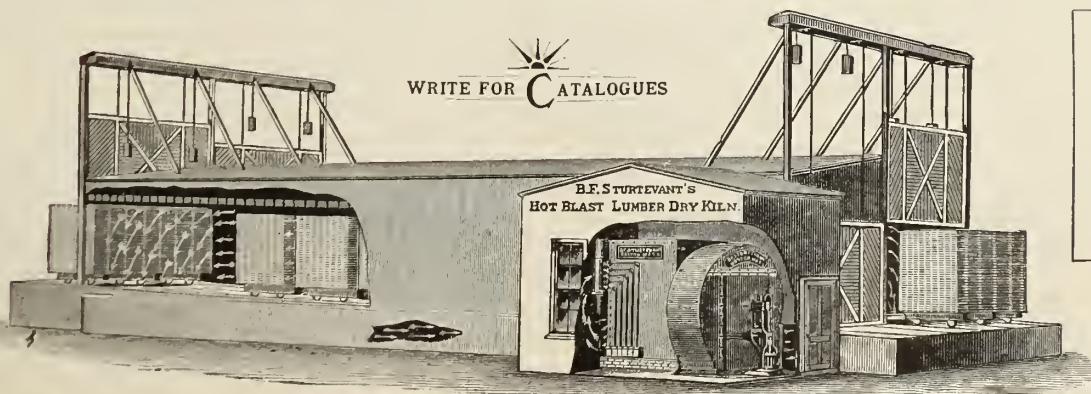
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Dries Hard and Soft Wood Lumber Without Warping, Checking or Bluing

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We send expert to give full information and estimates, on application.

Correspondence solicited.

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and Good Pine Lumber
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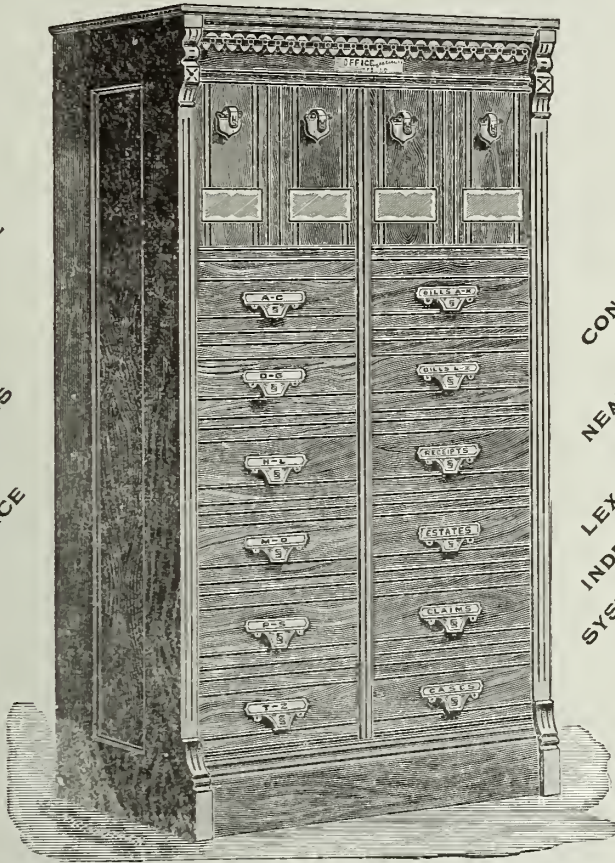
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Everything in Letter Fyles and Office Fixtures—paper, wood and metal. Send for illustrated catalogue and circulars of what you want.

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Doors, Sash, Blinds, Stairs
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CEDAR OIL for Purging Boilers
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OFFERS THE BEST FACILITIES FOR YARDING AND SELLING ALL KINDS OF

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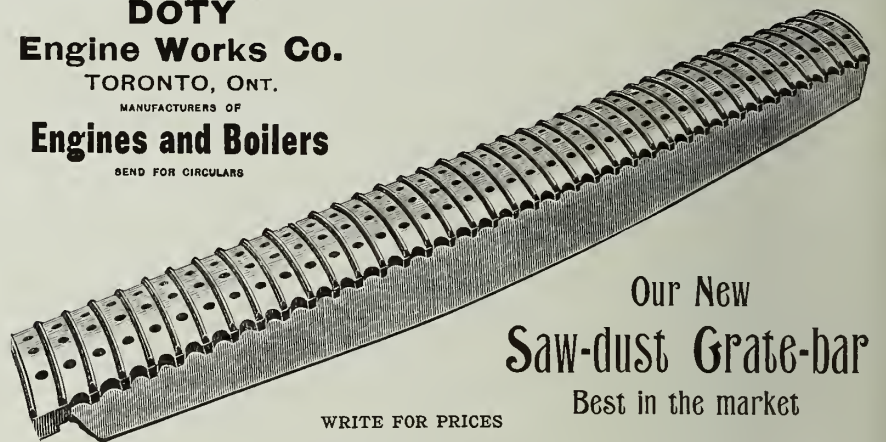
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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE.

VOLUME XIV. }
NUMBER 1.

TORONTO, ONT., JANUARY, 1893

TERMS, \$1.00 PER YEAR
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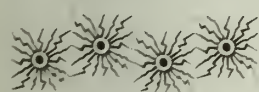
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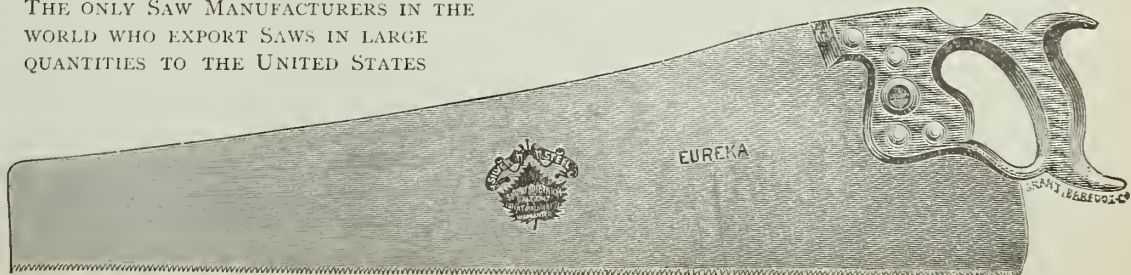
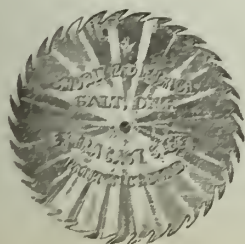


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Ottawa, Can.,

July 5th, 1892.

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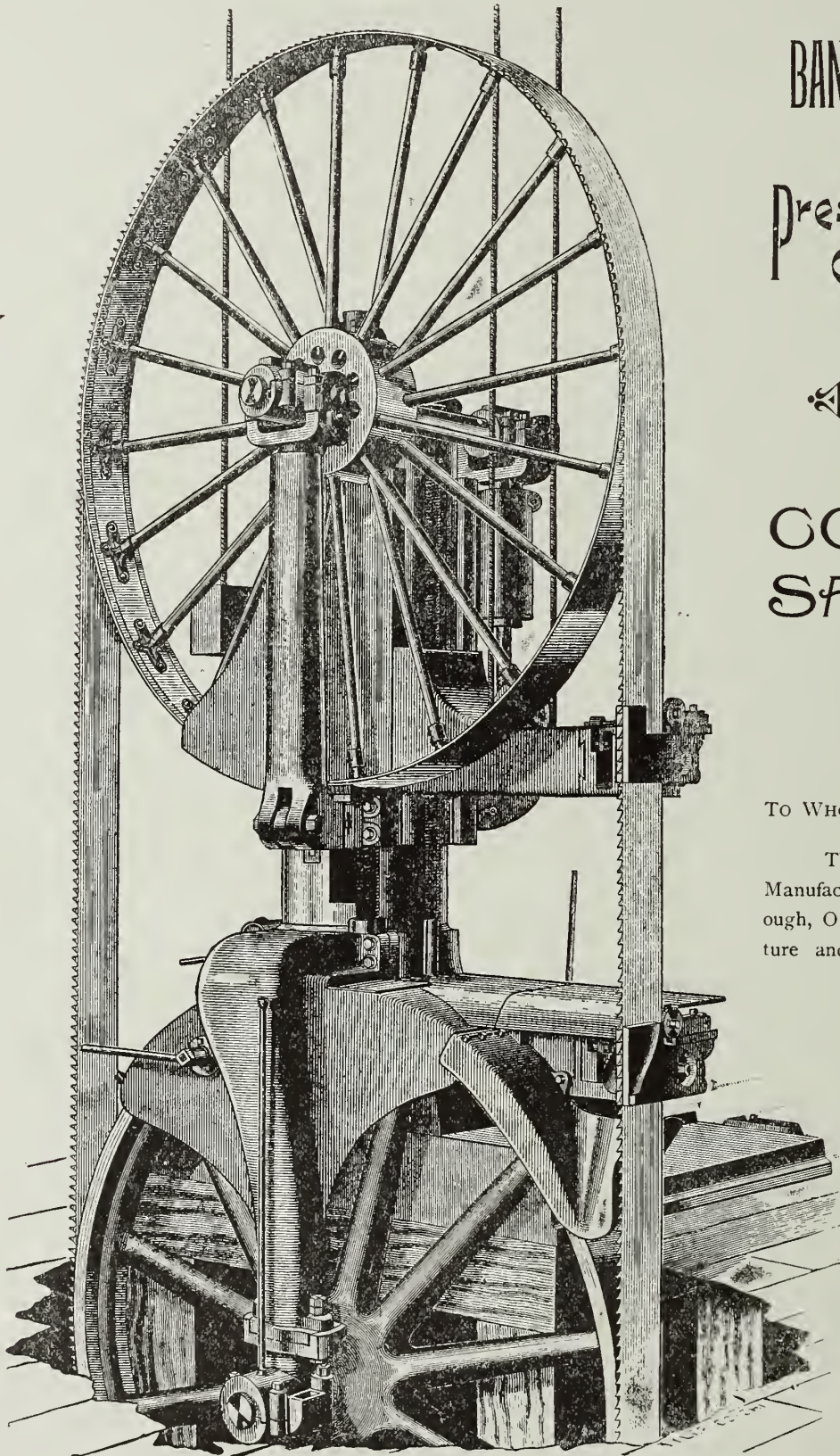
It may interest you to know that on June 30th last, in eleven hours, the Band Mill—driven entirely by water—which we got from you, sawed

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(Signed)

D. CLINT PRESCOTT,

[COPY]

Patentee.

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PETERBOROUGH, ONT.

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THE CANADA LUMBERMAN

VOLUME XIV. }
NUMBER 1. }

TORONTO, ONT., JANUARY, 1893

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A NEW STEEL BAND MILL.

INTEREST in the band mill grows with lumbermen. The engraving on this page of their "New No. 2 steel Band Mill," manufactured by the Waterous Engine Works Co., of Brantford, Ont., illustrates a mill modelled on radically different lines to the ordinary band saw mill; one certainly foreign from the previously conceived ideas of what a band saw mill ought to be.

Many of the standard mills have but one post supporting the upper wheel, others have two and an outer arm passing between the wheel and reaching to the upper shaft, making a third bearing under the shaft. In the Waterous mill the necessary rigidity is obtained by the six steel columns connecting the very heavy lower and upper cast plates. These make a much more rigid frame and give a much greater bearing to stand the strain than the single or double post mills.

In addition to this, doing away with the outer arm, they can bring the wheels fully eighteen inches nearer together. This permits the sawing to be done much closer to the upper wheel. This is a most important point. Any one knows from experience that a belt running from one pulley to another can be shoved on or off the receiving pulley while in motion quite readily, while at the driving pulley hardly any pressure that can be put upon it will disturb it. The effect is the same in the band saw, and the aim of all band saw builders is to have the cutting done as near the upper wheel as possible.

Another important point is the triangular frame supporting the upper shaft and wheel. This upper wheel has to be moved up and down as the tension is applied to the saw; with narrow bearings it is apt to bind with the strain that the saw puts upon the outer end of the shaft, and in this way rises up unevenly, or when the tension is being taken up by the weight of the binding may prevent a proper operation of the weight. With the triangular frame they have what is equal to a four foot bearing on the front centre post, making it impossible for any binding to take place, in adjusting the tension of the saw either by screw or weight.

The two boxes of the upper shaft are connected by a very heavy casting, making it impossible to get them out of line, and this casting is hinged to the triangular frame, and so arranged that the effect of the tension weight is applied directly to it and adjusts the tension without having to affect the triangular frame. This is a great improvement on the usual method of applying the tension. As will be seen from the illustration, the guide is very stiff and has very convenient adjustments. Its weight is counter-balanced and it is raised and lowered by friction, readily applied by the sawyer. The bearings for the shafts are eighteen inches long, and of ample diameter; the lower bearings are adjustable and the upper bearings are also adjustable by wheel and screw.

The effect secured by the outer arm and third bearing in ordinary mills is secured in this mill by running the bearing to the centre of the wheel, coring out the hub so as to overlap the bearing, thus bringing the centre strain of the saw on the bearing instead of on the unsupported shaft. The lower wheel is of ample weight and the

upper wheel is of very strong and light design. Another important advantage is gained by this mode of supporting the wheels. With an outer bearing, these eight and nine foot wheels have to be fitted to the shaft so that they will slip on and are then keyed. The slightest variation caused by the key is magnified many hundred times at the rim, making the saws run badly. The wheels in the Waterous mill are fitted to a slight taper and ground to a perfect fit and further held to place by a nut; no key is used; hence their wheels run true. Since the present illustration was made the style of upper wheel has been changed to relieve the rim of casting strain of hub, making arms adjustable, the proportion being arranged to a nicety to prevent any possibility

saw and the lower wheel. The wheels of this (the No. 2 mill) are eight feet in diameter, and are made to take ten and twelve inch blades, the saws being much shorter than usual for that sized wheel, namely, forty-three feet.

So much importance is to be attached to the character of the machinery used in manufacturing that we are of the opinion that the manufacturer is always ready to welcome any suggestion pointing towards improvement and greater efficiency in his particular line of work. Lumbermen, by their enterprise in the past, have shown that they are quite alive to this view of the matter; and as the season is approaching when they will find it necessary to place their mill properties in shape for practical operation, it is hardly likely that the Waterous band mill will escape thoughtful consideration at their hands. All the difference in a season's profits may be in the character of the machinery in use.

The Company report large sales of their No. 2 mill during December for next season's cut. Anticipating this, they enlarged their works, and put in some heavy special machinery to still further improve in the manufacture of their band mills, and to enable them to meet the increased demand.

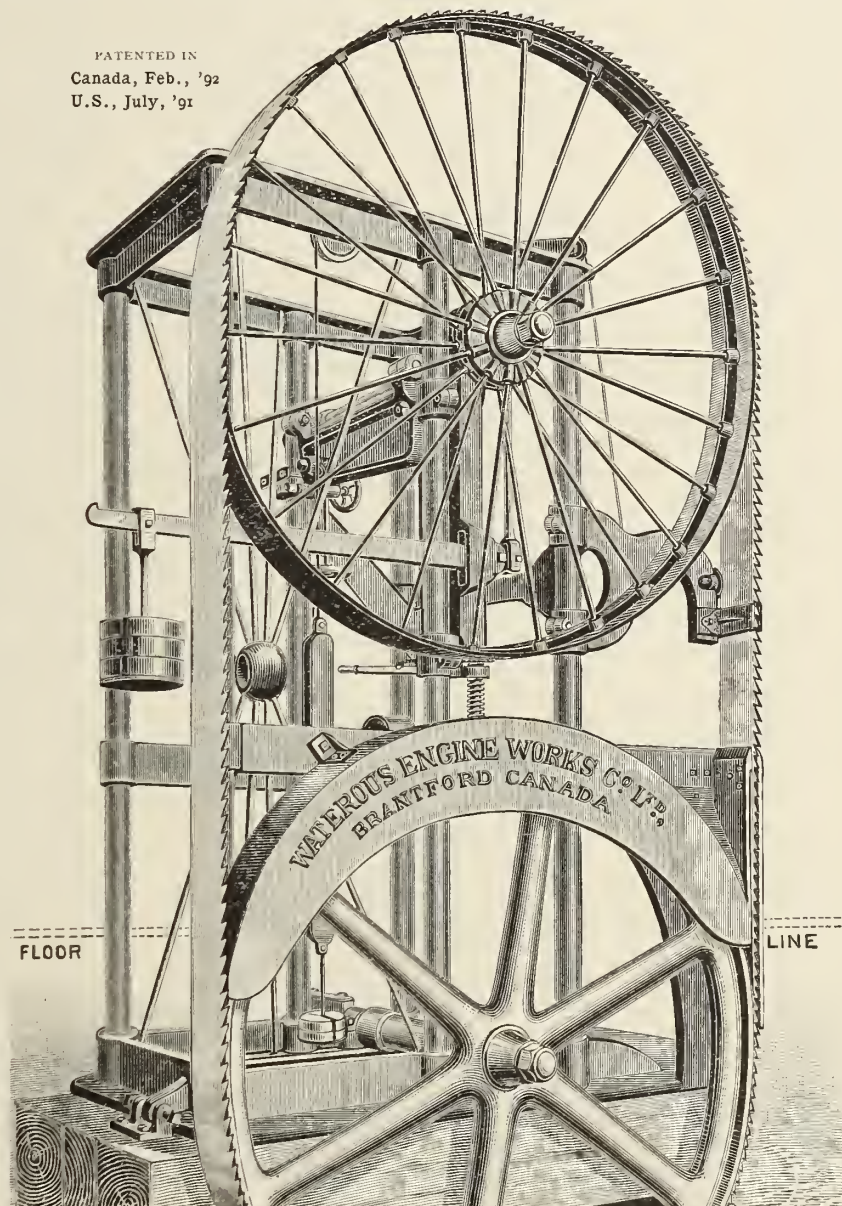
We are illustrating in this issue a very important patent decision relating to band mills, which the owners of the patent say will affect nearly every manufacturer of band mills in the States and Canada, viz., all mills using an outer bearing. The Waterous Co., by not using an outer bearing, are not affected by this decision, and claim to have a much better arrangement as described above. Lumbermen buying their mill are in no danger of a claim for infringement of patent being presented.

QUEBEC TIMBER SALE.

CONTRASTED with the recent sale of Ontario timber limits, the Quebec Government sale last month can hardly be pronounced a success. The Crown Lands Department had, it is said, expected that it would receive over \$500,000, whereas the whole amount realized was only \$85,000. Such a thing as spirited bidding, which made the proceedings in the old Parliament buildings here, under the guardianship of auctioneer Ryan, of lively interest to both purchasers and on-lookers, was unknown at the sale in the sister province. One report says that after a short time the upset price and other limitations set by the government were dropped, and the different limits were sold at anything they would bring.

An idea of how prices ran will be gleaned from the fact that lots on the River Batiscan, in the St. Maurice agency, were sold to Mr. Power at \$16 per mile; to Messrs. Tremblay, B. A. Scott and Price Bros. & Co., in the Lake St. John agency, at \$22, \$26 and \$7.50 per mile respectively. Other lots were sold at \$4, \$4.50 and \$5 per mile. The highest figure obtained was \$60 per square mile for twelve square miles in the Bonaventure agency. The spruce limits that were disposed of brought rather better prices than the pine. Mr. M. Boyd, of Bobcaygeon, bought nearly one thousand square miles in the Rimouski, Bonaventure and Saguenay agencies at prices running from \$4 to \$7 per square mile.

PATENTED IN
Canada, Feb., '92
U.S., July, '91



THE WATEROUS STEEL BAND MILL.

of the carrying over of the upper wheel. The shaft and bearings of the lower wheel are above the sole plate in plain sight and of easy access, unlike the majority of mills where the shaft is hung under the sole plate and difficult of access.

In addition to the six steel columns the mill is further strongly braced as shown in illustration. The lower wheel is protected with a cast iron covering, with a shute for discharging any accumulated dust or bark, while the saw runs through a cast iron lower guide, extending down past the carriage line, protected thoroughly with rawhide guides, which steady the saw and prevent the saw-dust passing down and thus getting between the

GOOD AND BAD BELT FASTENINGS.

A MAN had occasion, says a writer in the Tradesman, to pass under a twelve-inch rubber belt which drove a certain part of the mill. This belt was fastened by means of small links, similar to those used in an endless chain. The links were put through holes cut one inch from the ends of the belt, and in putting the belt together the ends are placed together so that the holes are opposite to each other. Then the links are forced through and a piece of iron wire put through the holes in the links so as to bear on the outside surface of the belt. This device forms a joint which stands straight up from the pulley about $1\frac{1}{8}$ to $1\frac{1}{2}$ inches when the belt is running. The man who was hurt was just passing under the belt when the joint came along and struck him on the top of the head. It took off a piece of the scalp about as big as a dollar, cutting it clean in three sides and leaving it hanging by the fourth. It knocked him senseless and it was several days before he was again fit for duty.

Such belt fastenings as these are an abomination that are as dangerous as a powder mill. All belts should be boxed up, but a belt with one of these things travelling around it should be cut in pieces and thrown into the boiler furnace. The link fastening is cheap, is quickly put into a belt and as quickly taken out when necessary to take a piece out of the belt. Boxing up will protect the operatives from the belting, but it will not protect the millwright or the repair man whose business it is to monkey around belts and shafting when it is running.

The instance mentioned above was a bit of personal experience of the writer, the man who was hurt being one of his workmen at the time of the accident. The owner was entreated to provide different fastenings, and after a great deal of grumbling some brass belt studs were provided, also a ring for making cement joints, which is the best possible way of splicing a belt. The belt studs are little brass concerns having a T-shaped head on either end, being made about $\frac{1}{2}$ -inch wide and of a length sufficient to pass through two thicknesses of the belt to be fastened. Brass belt studs can be procured in the market of various lengths from $\frac{3}{8}$ to nearly two inches long. They can be quickly put into a belt and just as quickly taken out, and when properly put in and adjusted will hold equal to the best sewed lacing that can be put in. The heads of these belt studs do the work done by the wires when the iron links are used as described above, but the studs do not cause the belts to stand up and make a scalping machine which is liable to maim or kill. To give an example of how well this stud does its work, it may be mentioned that a belt can be put together with these studs, and, after running a few days, and perhaps even hours, the stud holes may be cut completely out through the ends of the belt, but the studs will still hold perfectly, owing to the grip obtained by their heads on the outside surface of the belt.

After these studs were procured, they were put into all the belts around the mill, which were liable to need frequent taking up, i. e., one joint was made with the studs and all the rest of the belt (for there were several pieces forming some) were permanently cemented together, making practically an endless belt. The cementing outfit consisted of an ordinary glue pot with water jacket and lamp underneath. This could be used when necessary, but it was usual to place the glue pot on a steam pipe a few minutes before desired for use. In the glue pot was placed two parts of best common glue to be obtained and one part of fish glue. This forms a mixture which will hold leather so well that when torn in two after having dried thoroughly, it will split in a new place even more frequently than it will in the splice. A piece of smooth pine board, two feet square, a smoothing plane and a chisel, a hammer, a few tacks, together with a strong knife and a square, completed the cementing outfit. There must, however, be added to this list a pegging awl and a supply of pegs of different lengths.

The operation of cementing a belt is very simple. First, the belt is squared and cut perfectly true upon the end; then a mark is made back from the square end a distance equal to the width of the belt; then the belt is tacked upon the board so that the end comes just even with the edge of the board. By means of the plane the belt may be easily chamfered down from full thickness

to anything wanted. Both ends of the belt are served in this manner, taking care to carve each end on the right side, also making sure that there is no twist in the belt when it is brought together ready for cementing. Secure one end of the belt to the board by means of a couple of tacks a distance above the butt end of the splice, then warm the leather by some means, either by holding over a lamp or by means of a hot iron. When as warm as will bear the hand comfortably, proceed to spread on a coat of the glue, which should be moderately thick, a little thicker than is used for gluing wood. Give both surfaces a coat as soon as possible, then put them together and hammer lightly with a broad-faced hammer. When spreading the glue, it must be made sure that the entire surface of the leather is coated, and coated evenly at that. Any little corner left without glue will be a defect in the work and a source of continuous trouble.

Having made sure that the surfaces are thoroughly covered with glue, place together as above described and hammer lightly until all parts of the surfaces have been pounded together. With the pegging awl, mark a row of holes about three-quarters of an inch apart all around the splice. Drive pegs into these holes as fast as they are made, and use a length of peg which will just go through the leather and leave the pointed part projecting. Allow to dry a few minutes, then trim off the pegs with a sharp knife and the belt is ready for use. It would be better to allow it to stand over night if possible, but many times it is not and the belt is doing good work within half an hour after completing the splice.

ON RUNNING A CIRCULAR SAW.

A CORRESPONDENT, of the Saw Mill Gazette, who has, apparently, a practical grasp of the subject, gives the following points on running a circular saw:

The number of teeth should be proportioned to the power, minus that spent in extra speed. A thin saw will not bear as many teeth as a thick one, therefore, the more power the thicker the saw should be, yet not in proportion to the power, for a good part of the power can well be expended in making greater speed.

A tooth of an eight-inch saw ought to cut one-tenth of an inch in common pine sawing, while the eleven-gauge tooth cuts one-sixteenth of an inch.

The sizes of saws between forty and sixty inches do not necessitate any change in the number of teeth. An eight-gauge saw should have about thirty teeth, and an eleven-gauge should have about twenty teeth.

The speed of a saw does not necessitate any change in the number of teeth or amount of feed, but the speed should be proportioned to the power.

The saw should not tremble in cutting. Trembling is caused by uneven teeth, or the heating of the saw in the guides, or in the centre, and sometimes a frozen log, if it touches the centre of the saw, will, by suddenly cooling it, cause it to act as if it were hot at the guides.

A thin saw requires the same projection of set as a thick one, and one difficulty in running a very thin one is that there is not enough thickness to swage out a good set, without moving the steel so much as to weaken it, and so causing the corners to crumble off from the teeth.

A saw that always runs best when the arbor is warm, is not hammered right. It is too tight in the centre, and too loose in the rim.

The sun should not shine on the saw when it is in motion, unless you can make the sun shine in the right place.

A saw not going quite right may often be made to do better by changing the lead, and also the guides.

The track and carriage must be straight and level, and the saw arbor must be level.

The saw must run true, and a saw that is fairly straight may be made to go true by pieces and rings of paper properly placed at the centre, on either one side or the other.

Other things being right, the saw need not lead or line into the log more than one-eighth of an inch in twenty feet.

One gauge thicker in the centre is about right for a common saw.

Every tooth of the saw should cut, and no one tooth should do more than its proper share. In the case of a broken tooth, shorten the next behind it as much as one

tooth cuts, and shorten two or three behind that slightly. In this way a saw with several broken teeth may be made to do good work. The points of the teeth should be kept a little thinner than the swage, and the more hooking they are, the less power it takes to drive the saw. But do not let the backs of the teeth be higher than the points.

Generally speaking, more than 200 horse-power should not be used for an eleven-gauge saw, unless it is hammered to run quite swiftly.

Swage just enough to avoid the binding or heating of the saw in the cut. The cutting edges of the teeth should be straight and square with the plate, and the swage should be held square and straight. When struck it should not jump or move, and will not if held and struck right.

The saw is inclined to run to the side on which is the highest or longest corner of a tooth.

In sawing an extremely bad log, put on less feed and less power, so that the saw may not be heated.

When the bark of white pine pulls in and bothers, incline the saw into the log, and have the tail sawyer pull upon line board as it is sawed.

In a clear sawing, if twenty teeth go easily at one and one-half inch feed, by increasing the power one-eighth the twenty teeth will just as easily go at two and one-half inches feed.

A SONG OF THE SAW.

BY A. B. GOULD.

OF all the men of a saw mill crew,
But one with a female each day has to do.
This "she" the circular saw is by name,
And the saw and the girl are in temper the same.

The filer's supposed to be an expert,
But he often has found her a terrible flirt.
He calls her his darling and source of his joys,
But she, woman-like, flirts with all the mill boys.

The sawyer may try to keep her all straight,
But she's likely to lead him to a terrible fate;
But she'll hum and sing the summer day long,
To an experienced ear a beautiful song.

Her song brings to mind twenty years of my life,
And with her, I own, I've had many a strife,
But now she is conquered, I think so, at last,
Though all the boys claim she is awfully fast.

I have dosed her with emery and also the file,
And with hammer and anvil I've freed her from bile;
For, as I said before, twenty years of my life
Have with her been spent in continual strife.

First she will halt and then dance and prance,
Like a colt that is balky and loth to advance.
No coaxing will move her, no cursing will serve;
The hammer and anvil alone give her nerve.

But in spite of her antics she always will be
The queen of all saws you ever will see.
Her cut is on record, and day after day
In hundreds of thousands 'tis measured, they say.

'Tis a capable female, this circular saw,
It takes thousands of logs to fill her great maw.
Though for mill dogs and bolts she has a dislike,
She's my darling when, well, I know she's all right.

They say that she's old, that the band is the belle,
But for what she has done her praises I'll tell;
And if in the future I see her lie still,
Respect I'll still have for her work in the mill.

Now, the band saw, I own, is a different kind,
It takes clear stuff and uppers to cut to her mind,
Her temper is ticklish, she's full of her tricks,
And it's hard to persuade her to put in her best licks.

For five years I had her and trained her down fine,
Till she cut like a beauty in the big, soft, cork pine.
She, too, is a darling, when rigged out in trim,
And a saving in timber with saw kerf so thin.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

VIEWS AND INTERVIEWS.

Hits Both Ways.

"It will be interesting to see what course the lumber journals, which a few short months ago would not join the manufacturers in an effort to head off free lumber, because there was 'a republican president and republican majority in the senate,' will have to say about it now," says the Chicago Northwestern Lumberman. To which the Minneapolis Lumberman adds: "It will be a good deal more interesting to see what the lumber papers which, in double-leaded leaders, said the lumber business would go to the demnation bow-wows if lumber should be put on the free list, will say when it is accomplished by a democratic president and a democratic majority in the senate. It depends altogether on how far a man drops how much he is hurt."

Sawdust Blocks for Building.

Only as late as last month we gave an account in these columns of experiments being made in manufacturing bricks out of sawdust. The Mechanical News tells of a promising utilization of sawdust in Germany, where blocks for building are made of that material. The accounts given of their quality are extremely favorable as regards their strength, lightness, hardness of exterior and capability of resisting fire. It is, in fact, claimed for them that they are practically noncombustible, but nothing short of the most complete demonstration can justify the use of that term in its full literal significance. The sawdust is mixed with an acid before the blocks are moulded. Their cost as now made is moderate compared with other materials of equal utility, and it is thought that the process may be still further economized.

Business and Morals.

The science of homiletics is not alone the work of the moralist. Morals have their place in all walks of life. Business and morals—separate them as some will endeavor to do—have a close affinity for one another. The business that is immoral should certainly have no place in the business of a country, and one may well look askance at the business man who decries the application of moral principles to his methods of transacting business. The old saw, "honesty is the best policy," is an acknowledgment of the place that morals occupy in business. The tenets of this adage are perhaps not the highest, but the exercise of its teachings in business gives force to the conclusion that even in business the right way is the best and only safe way. The business man needs not be constantly assuming the role of the preacher. It is hardly business-like for him to do so, at least in an ostentatious manner. Yet the more closely his methods are shaped on these lines, the more healthful, even from a financial point of view, will be the outcome of his business operations. And the business of a community or a country being simply an aggregation of business units, the better will it be for that community or country when the business units, as one man, exercise in private and public transactions the healthful points of the saying, "honesty is the best policy."

Do it To-Day.

"Do it to-day," says a writer in the Merchant Sentinel. "Meet the day's demands with promptness regardless of their seeming insignificance, for there is no better way to place your name between the lips of undesirable business gossip than by showing this lack of promptness in small matters. This does not alone apply to the strictly financial part of your work. There are thousands of opportunities which present themselves where it is possible for the business man to take advantage of the "stitch in time saves nine" axiom. The "stitch" is but an insignificant factor in the make-up of the long, binding seam, but the neglect of the one broken thread, and procrastination's prevention of its prompt repair, is the ruination of the entire garment. So we find men in their business transactions constantly "putting off" that which should be done to-day until an accumulation of the little neglected details form an aggregation with a crushing weight, when the time comes that circumstances give the mandatory command. It must be done! How often do we hear the merchant who is his own book-keeper lamenting an unpardonable negligence in

himself—in the matter of keeping his accounts entered up to date and his books in a condition of intelligent management. A negligence which he would not tolerate in any one in his employ. So easy is it to thoughtlessly "put off" that which does not make a peremptory demand upon our time, that we are liable to fall into the habit of being behind the details. Better, by far, be ahead of time than constantly lagging. Do everything as it presents itself, for just as sure as you "put off" until to-morrow, your time will be fully filled by the duty of the day and you have lost the only opportunity of life open to the neglected work."

Ups and Downs of Ship-Building.

The ship-building industry has undergone many changes. There was a time when the United States were to the fore in wooden ship-building and it was a goodly day for the lumberman. But England came to the front with her stores of iron and cheap coal; iron superseded wood, and American ship-building declined and our neighbor, with all her enterprise, has never been able to surmount the difficulties of that day. Even in what ship-building is now carried on in the States, in so far as lumber is used, it has been discovered that the woods of Canada are preferred to those of their own country and the United States navy is sending to British Columbia for supplies of Douglas Fir in place of using Oregon pine. Now it is Scotland's turn to suffer reverses in ship-building. A census of the yards between Glasgow and Greenock, which has been taken by the Glasgow Mail, shows that in twenty-seven, with 148 berths, there are only forty-nine vessels in course of construction; and there is no immediate prospect of fresh orders being booked to cope with the stagnation which has set in. Freights are so low and unremunerative that at every port large numbers of vessels are being laid up by their owners. It is estimated that at the present moment there are about 500 steamers and sailing vessels tied up in the harbors of the United Kingdom. The causes of this ebb-tide in our commercial prosperity are manifold and complex. The economist may be able to give a satisfactory account of their origin and to estimate the period of their duration. But whilst he is collating his figures and adjusting his conclusions, the community, and the districts within the ship-building area, are face to face with a depression that will work havoc in many homes. The ship-building industry on the Clyde employs, when trade is good, between 50,000 and 60,000 men, and as only about one-third of the building berths are occupied, it follows that fully one-half that number must at present be unemployed. A fair proportion of these have doubtless found work elsewhere, but when a full allowance is made for migration, there must be over 15,000 workmen idle at this moment. Unless provision has been made for a "rainy day," pinching poverty will invade many a household before the winter has well begun.

Utilizing the Waste.

A recent article in the North American Review, under the heading of "Waste Products Made Useful," is full of interest as indicating the utilitarian spirit of the age, which aims to find a useful place for all its products, good, bad and indifferent. The writer is the Right Hon. Lord Playfair, and he has gathered together a mass of information on the lines suggested by the title of his paper. He shows from what material ammonia is produced, and to what a variety of uses old rags are turned. Some of the choicest perfumes come from the ill-smelling fusil oil; and coal gas is made into beautiful dyes. A lumber contemporary, commenting on Mr. Playfair's contribution, asks: "May not a way be devised to turn to use the material about the modern saw mill now going to waste? True, we are adopting methods which limit the amount of material which goes into sawdust and cut down the amount of stuff for the slab pile and the furnaces, but which are still fed so generously that it is apparently more a question of getting rid of the fuel afforded in the present natural processes of manufacture than to merely supply them with food. But even this does not suffice. The burner attached to most mills is kept busy, and in large cities the fuel dealers pay a beggarly sum and cart away fuel in almost unlimited quantities, while all sorts of ingenious methods are

adopted to make ground with what is unmarketable. Half the ground which is made, too, be it said, is not of value, but the worse for having been made a dumping-place. In the salt region the saw-mill men use their refuse to operate salt blocks, and then sell their salt for little or nothing. Despite all of these expedients the problem of getting rid of the refuse of the saw mills is still a considerable one." Some more recent attempts have been made in economizing mill refuse in pulp and paper making, and in other ingenious ways. The Kathbun Company, of Deseronto, Ont., have made, perhaps, as perfect application of this utilitarian doctrine as any concern in the country. Almost nothing in their large wood-working establishment is allowed, it is said, to go to waste; a block of wood the size of a visiting card is turned to account. Sawdust is distilled, producing alcohol for industrial purposes, or combined with clay and converted into terra cotta building material. Even the smoke from the furnaces is subjected to "creative" processes, and valuable commercial products are the result. Yet there is much progress to be made in utilizing the waste of the saw mill, and the men who are giving thought to this question are doing a good work for the lumber industry.

MECHANICAL HINTS.

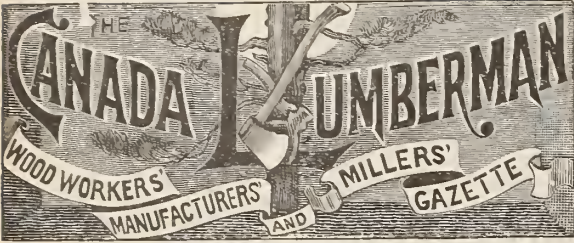
WE often see engineers when they are about to pack a valve or piston rod, and their packing is a little large, hammer the packing flat, so that it will go into the gland. This is a bad practice, for it breaks the strands of the packing, cuts them in fact, and does not improve it in any way. Instead of this, just take it to the vise and press or squeeze it out as flat as you wish. It will be more even, will pack better and will not have ruined the properties of the packing. Try it once and see how much better it is than hammering. If the jaws of the vice are too short for your work, you can easily arrange some false jaws for this work, either of hard wood or soft metal.

Don't go working around a shafting with anything that can possibly catch in the belts, pulleys or couplings. If you wear an apron, take it off when at this business, as it is a trap, for if the material does not give way you are liable to go sailing around the shaft, not a very pleasant journey to contemplate. Don't wear a jacket or shirt with ragged sleeves, or, in fact, any projections that could tempt the revolving set-screws or key-way. Of course, no such things should be around a shaft, the day for that is past, but do not be careless even if there are no such traps around the shop. In these days of wooden split pulleys that require no set screws to hold them on the shaft, there is little excuse for key-ways or set-screws that lie in wait for victims. When it is necessary to use set-screws, as in collars, etc., let them be countersunk, so as to present no projecting heads, let key-ways be filled with wooden strips outside of the pulley, and, in fact, take every reasonable precaution for the safety of the men whose duty calls them around the machinery, and on whom depends the successful running of the plant.

There is much unnecessary carelessness in a good many establishments, and much more danger than is necessary to the running of the plant. In one place that the writer knows of they have left the covers off the shaft couplings, leaving the bare bolt heads and nuts exposed to catch any one who comes near. The cover came with the coupling, but was left off from pure neglect; probably because they did not need it for a driving pulley. It must not be thought that all the blame lies with the foreman or proprietor, for such is not the case, and we often find the men leaving, from pure neglect, things undone, which leave a danger for their companions.

For instance, the scaffold may not be put up strongly because the man who put it up thinks it doesn't need any more nails, or his nail box may be empty and he forgets to go up there again and put in more; then somebody falls and the verdict is: "Unavoidable accident;" but there is some one to blame nearly every time. Don't let it be you.

T. W. Kerr, Ladner's Landing, B.C.: "Enclosed find one dollar, another year's subscription to your valuable paper. I am always pleased to meet it."



PUBLISHED ON THE FIRST OF EACH MONTH

—BY—

ARTHUR G. MORTIMER

OFFICE.

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J. S. ROBERTSON, EDITOR.

CHAT WITH SUBSCRIBERS.

PURSUING the policy that regulates every well-conducted business, we enclose in this month's CANADA LUMBERMAN accounts against the individual subscribers who, in the festivities of a holiday season or the excitement of a municipal election contest, have overlooked the fact that they have not yet remitted the year's subscription to their own trade journal, for the CANADA LUMBERMAN is essentially the lumberman's journal. Our subscription books should show a clean sheet on first of February, and all that is needed to make this a fact is for each individual concerned to attend to this little affair now. The successful business man attends to-day to the affairs of to-day.

FIRST MONTH THOUGHTS.

ACCORDIAL and hearty New Year's greeting is extended by the CANADA LUMBERMAN to its many subscribers in all parts of the world.

There's a new foot on the floor, my friend,
And a new face at the door, my friend,
A new face at the door.

writes Tennyson, and in the company of this new friend may all our friends spend many pleasant and prosperous days. * * * *

This number of the CANADA LUMBERMAN marks the commencement of the fourteenth year of publication, a record that reflects not uncreditably on the industries for which the LUMBERMAN essays to speak, and we may be permitted to add, nor on the journal itself. Horace Greeley once declared: "The success of a newspaper depends largely, very largely, upon the friendliness and co-operation of its constituency." And the LUMBERMAN has reason to believe that its success during these thirteen years, and more particularly, the enlarged success that has come to it, within more recent years, has been due to the cordial and friendly relations that have always existed between the paper and its readers. We shall continue, during the new-year, to make the LUMBERMAN of increased value to the lumber trade in the broad field it now occupies, and thus continue to merit, by actual doing, the many kind words that are constantly spoken of it.

The February LUMBERMAN will be the annual statistical number, giving a review of the lumber trade of the past year, and we will appreciate any information that readers can send us concerning this matter from their individual localities.

DANGERS OF LUMBERING.

ONE of the sad aspects of lumbering is the number and distressing nature of the accidents constantly happening to the workmen employed in the manufacture of forest products. Considering the matter from this point of view we have sometimes experienced a feeling of relief when the period had arrived for the closing down of the sawmills of the country. But it is a question whether the mishaps occurring to those engaged at work in the woods are not as many, and just as terrible, as those that happen within the walls of the sawmills. In the winter woodmen are exposed to risks of work and weather that are only met, often, at the cost of bruised bodies, frozen limbs, and too often death itself. One of

the saddest experiences of this winter's work in Canadian woods, comes from the shanties in the eastern lumber regions, and is embodied in a recent newspaper despatch from Ottawa. John Burns was engaged in one of Mr. J. R. Booth's lumber camps on the Black river, some 110 miles from Mackey's station on the C.P.R., and left the camp on December 23rd with the intention of coming home to Ottawa to spend his Christmas holidays. He was met on the road coming down by John Dasser, jogging along. Four days afterwards the unfortunate man was found standing up with his arm around a tree some six miles away from the camp he had left on the 23rd. Mr. Dasser was returning when he espied the unfortunate man, and thinking he was dead, exclaimed, "Why, that's John Burns, and he is dead." "Not dead," replied the unfortunate man, "but nearly dead." He was carefully taken into the conveyance and brought to Mackey's station. On examination it was found that his legs and arms were frozen solid. He had been four days and four nights exposed to the intense frost without any nourishment. He was treated in the Pembroke hospital for a few days, and on Saturday was brought to Ottawa. It is feared the unfortunate man cannot recover.

TWO PICTURES OF THE SAW MILL.

"THE saw mill," it has been remarked, "is a potent agent in civilization. To most localities it has brought everything—people, post office, schools, churches, water, electric light and all the luxuries." This may seem, to the average man, a fanciful picture of anything so material and thoroughly wooden as a saw mill, and yet one needs only to study with some care the early history of most newly-settled countries to learn how nearly the picture approaches the reality.

Little progress is made in any locality until the forest is cleared, in part, at least, of its native product. The agriculturist, who certainly has a right to rank as a pioneer in the opening up of new settlements, is handicapped in his work until the woodman has felled the trees, that the virgin soil may be made to bring forth of its fruits.

This work of clearing the forest is with difficulty performed without the aid of the saw mill, and the saw mill man gravitates to these newer territories as naturally as water courses down a hill. His saw mill may be crude in its construction and methods compared with the more modern mill that will succeed it, but the saw mill is there, bringing with it the good and desirable, and sometimes not a few of the worse and undesirable, things that follow in the train of every agent of civilization.

* * * *

This is one picture. The saw mill, however, effective as it has proven as an agent of progress, would seem to be, in the present day, often too rapacious in its demands and unnecessarily energetic in its methods. The pendulum has swung to the other side, and we are feeling some of the hurtful effects that follow when extremes are reached.

What is meant by this remark has been pointed out in these columns on more than one occasion. In a brief sentence it was expressed in an article in the November LUMBERMAN, when, in speaking of the pine resources of this province, we said that the lumbermen had pierced so nearly through our pine forests with their operations that daylight, so to speak, can be plainly seen through from the other side. A few years ago this statement would have been followed in the minds of lumbermen with a big interrogation mark, but to-day it causes no surprise. Not only is it known that these are the conditions, in a large measure, in our own country, but similar conditions exist in Michigan, and will, apparently, prove the history of other provinces at no far distant date, as they have of other countries in past days.

What is the remedy? Students of forestry have given us more than one panacea for these various ills, and, impracticable as they may be considered sometimes in their conclusions and propositions, lumbermen, nevertheless, owe these men a considerable debt for the thoughtful study they have given the question.

Germany has made forestry almost a science in the exactness of the methods employed in their schools of forestry and in their breadth and comprehensiveness of

treatment. A history of the work in France, India and Great Britain is replete with interest, and in this newer land, where the development has been of slower growth, the labors of Prof. B. E. Fernow, chief of the forestry department of the United States Department of Agriculture, and our own forestry clerk, Mr. R. W. Phipps, of the Ontario Government, are worthy of favorable mention.

The importance of a study of forestry by lumbermen and agriculturists has lately been emphasized by the publication in a leading German agricultural journal of an article showing most conclusively that the famine that has caused so much distress in Russia recently is due to the indiscriminate cutting down of the forests of that country during the past thirty years, drying up the waters in rivers and lakes and impoverishing the land so that it has become unfit for cultivation. The intelligent lumberman will always experience an intelligent interest in the study of forestry.

There are remedies outside of forestry preservation that may be employed to secure to the country the full benefit of its forest wealth. Knowing pretty accurately the remnant of forest that remains, government and lumbermen need to go slowly in the disposition of this wealth in the future. Even in the utilization of the waste products of forest and mill, to which some reference is made in another column, greater frugality has become essential. In the marketing of lumber there is no longer occasion to value the products too cheaply. It is one of the fundamentals of political economy that as supplies run short demand increases and prices advance. This is the lumber situation in Canada just now.

Mr. Little and those who view the situation from his standpoint would not remain satisfied with only an intelligent application of forestry methods, nor with placing a favorable consideration on the timber of the country. They argue with much force that whatever gain is to come from this valuable resource should come entirely to our own people. The timber we cut should be manufactured into lumber in Canadian mills and by Canadian workmen.

EDITORIAL NOTES.

UNITED STATES capitalists continue to acquire important lumber interests in Canada. An American syndicate, has, within the month, completed a deal with Richard Nagle, of Ottawa, Ont., by purchasing 144 miles of timber limits in the Nipissing district for \$150,000.

THE opinion is entertained by some that the entrance of Hon. Mr. Ives, of Quebec, into the Dominion Cabinet means an early reimposition of the log duty. What is altogether more likely is that the relief to Canadian lumber interests, which is sought for in some circles, will come through lumber being placed on the free list by a Cleveland administration. The McKinley bill must go, and so far as lumber is concerned the trend of public opinion in the States is strongly in the direction of free lumber. Leading lumbermen from the Georgian Bay district, who have recently been across the border, are reported to have expressed the opinion that this is the view of those who are believed to know something of coming Democratic legislation.

WHEN in the office of Messrs. Donogh & Oliver a few days ago the LUMBERMAN was shown samples of British Columbia kiln-dried cedar shingles for roofing, the product of two Vancouver mills. The trade in Ontario who have had an opportunity of inspecting these shingles are, we are informed by Mr. Donogh, favorably impressed with their appearance. They are a clear, bright looking shingle, and it is claimed by the makers that they can be laid with 5½ inches exposure instead of 4½. This, if correct, is undoubted economy and materially offsets the extra cost, which is say \$2.80 as against \$2.50 for Ontario shingles. They are wider and thinner than this province's products, and for this reason less likely to warp or split. Red cedar shingles are making their way into Ontario. A week ago a shipment of lumber was received by a local dealer in London, containing 60,000 red cedar shingles, and samples of Douglas Fir dressed into flooring.



MGARLAND, the manufacturer, at Bay City, of saw-mill specialties, is reported in a recent interview to have said: "Saginaw Bay is not a thing of the past by any means. We are good for years and years yet. Millions of feet of pine is being rafted from Canada and the Lake Superior region and is being sawed at Saginaw and Bay City. You would be surprised to know how cheaply the logs can be rafted down. The cost will not exceed fifty cents a thousand, except occasionally when the rafts are broken in a gale. This very seldom happens, as the logs are locked in the rafts for keeps. Logs can be rafted cheaper from the north than they can be put in on sleighs or by rail."

* * * *

It is seldom that wood, which was grown more than four thousand years before the Christian era, is used in the construction of a present-day residence, and yet this happened recently in Edinburgh, where a mantel-piece was fashioned from wood said to be six thousand years old, says an English journal. An oak tree was found in a sand pit at Musselburgh, 13 feet below the surface. Professor Geikie, of the geology chair of the University of Edinburgh, after personally examining the strata in which this oak was found, said the tree, which was five feet nine inches in diameter, must be at least six thousand years old, and describes it as a relic of neolithic man. It was in a fine state of preservation, due to the sand, and was easily workable.

* * * *

Mr. J. R. Booth, who has known Ottawa for sixty years, and has a thorough acquaintance with its lumber conditions, has said: "The square lumber trade is fast diminishing. There used to be seven large mills paying out nearly three millions, but the trade has now got down until there are only two concerns. Many will live to see the lumber business as it is now, completely done, and now is the time to take advantage of the opportunity to secure something in its place. There is no reason why this city should not be the foremost city in the Dominion, and the great advantages being derived from electricity allow of manufacturing establishments being built all over the city, their power derived from the great water power. The Edison Electric Company declined to locate at Almonte because there was only one line of railroad, and Peterborough, from its better facilities, secured the industry, and the concern now employs nearly nine hundred hands." Mr. Booth's hope for Ottawa is in the extension of its railway facilities. It is a strong statement to make that Ottawa's days as a lumber centre are numbered, and, coming from Mr. Booth, with his vast lumber interests on the Chaudiere, it is significant.

* * * *

A visitor at the LUMBERMAN office within the past week was Mr. T. Charlton, of the firm of J. & T. Charlton, Tonawanda, N. Y., and Little Current, Ont. Mr. John Charlton, M. P., is the resident partner in Canada. "We have not been handling very much Canadian lumber lately," said Mr. Charlton. "Southern lumber is coming rapidly to the front in the eastern States and in direct competition with Canadian lumber. In some respects I think it is better than Canadian lumber. Do you know there is a difference of about \$2.50 a thousand in lumber sold in Michigan and the same class of lumber in Canada? The higher price is obtained in the States. Of course the one dollar duty makes so much advance, but the extra price comes from the existence of a better market creating a competition among buyers. In fact there is no lumber market in Canada, that would tend to bring buyers together. Prices generally are advancing. I do not anticipate any change in the United States lumber tariff before December, 1893. The new Congress does not meet until then, unless a special session is called for in the spring of the

year and this is not likely. Besides the Democrats are still three short of a majority in the Senate, and the sanction of the Upper House must be obtained to tariff legislation."

* * * *

Mr. R. H. Alexander, manager of the Hastings mill, Vancouver, B. C., is of the opinion that the increase in the lumber tariff of Australia was chiefly for revenue purposes, as Victoria was in a very impoverished condition at the present time, and the Government had decided to put the tariff on lumber, as that had to be imported. It had been said, that it was a retaliatory measure to the McKinley Bill, which put a tax on Australian wool entering the United States. That, he thought, might perhaps have something to do with it, but, in his mind, that point had been brought up by the Government to appeal to the popular sentiment, and to assist in passing the measure. The Melbourne lumbermen were also reported to have brought up the proposed changes in order that they might dispose of their large stocks at improved rates, but this, Mr. Alexander thought, was not the cause. If the changes, as now proposed, are passed it will mean a large increase in the price of lumber, and the market will be closed until the present stocks are disposed of. They will then, however, have to purchase from here again, and if a preferential tariff could be secured for Canada it would be of great advantage to the lumbermen of this Province.

* * * *

In last month's LUMBERMAN there were given the opinions of so experienced a lumberman as W. J. Hendry, late manager for Mr. Peter McLaren, touching some important trade matters. Let me tell you what he has to say on other phases of lumber affairs. "The disposal of dry pine, that is the pine killed by forest fires," said Mr. Hendry, "is becoming a live question. With band saws and automatic canters, the logs can be sawed much after the fashion of apple or potato paring. By judicious assortment this kind of product can be profitably marketed, the principal defect being worm-holes, but the bark being loosened by the action of the fire, will reduce this risk from worm-holes considerably, as the worms feed on the stringy pulp attached to the inside lining of the bark, and are there protected from their feathered enemies. The La Platte market in South America would take immense quantities of this lumber, its lightness in weight being particularly adapted to the pack-horse transportation of the Argentine confederation. For this timber the government could fairly throw off the crown dues, as the clearing of much arable land would give ampler returns for this concession." "Have you had any experience with fir timber?" Mr. Hendry was asked. "Yes, there is the Douglas fir of the western slope of the Rockies, sometimes called Kauri pine, which must hereafter attract greater attention in the markets. It attains a great girth; is non-resinous and non-fibrous, in fact it is of bulbous growth. It is free from all the defects of eastern pine and spruce, but lacks their strength. In the sixties a firm in Vancouver presented a flag pole to her Majesty the Queen, 147 feet long, 14 inches calliper at the butt and 10 inches at the top, of Kauri pine, but when it was being placed in position at Kew Gardens it broke. The chief market for this kind of lumber would be the islands of the Pacific, China, Japan, the Phillipine islands, Australia, New Zealand, the western peninsula of India, Mauritius, Ceylon and the Cape." "What could such lumber be used for?" "It is bound to replace sandal wood for tea boxes, and being capable of taking a nice polish, should become fashionable for cottage furniture. Oak is about done, and this Douglas fir will become the leading stave wood for barrel manufacture. It is easy and economical to work and does not contain tannates, like oak, which render packed meats, butter, lard, etc., rancid. In fact pork or beef kept in oak barrels for a lengthened period actually becomes tanned through the action of the tannates contained in the oak staves. The probabilities of the stave trade are simply immense and British Columbia has a mint of wealth in her Kauri pine forests."

The Latour limits, situated on the Upper Ottawa county and Lake Temiscamingue, the property of the Merchant's Bank, have been sold to James Russell, of Renfrew, for \$16,200.

A NEW SAW.

A NEW saw, says a writer in *Hardwood*, requires different treatment from that given an old one. Many new saws are ruined in a short time through ignorance of this fact. If the sawmakers' instructions are carried out, generally, there will be but little trouble. Often only such items as guard against changing pin holes, teeth, etc., are observed, while the others are neglected or overlooked.

First, it is necessary to know that if the old saw is running fairly well, it does not by any means indicate that the mandrel and lead are in the right condition for a new saw. It is thought because a saw is new it will overcome much evil by being nicely fitted, with the maker's guarantee on it. Let me say to mill men that no new saw should be subjected to any abuse, or any chances taken.

If the old saw is properly kept up, and the mandrel in line, the new one, if right, will run without any re-adjustment. But how few mills can be found in this condition. Several things are likely to happen to a new saw. Old ones are generally run with too little lead. This may be necessary from their condition, as previously stated. Now, the new saw will not admit this, and will soon be permanently dished, or otherwise injured, with a lot of blue spots on it.

The old saw, lacking this heat to compensate for its lost tension, would not blister, and being partly dished, no immediate change is brought out. The new saw is moved into the log by the guide, and the next filing it is filed into the log. The guide then has to be moved partly back, which is liable to leave the centre nearer the log than the rim. This will cause the saw to heat at the centre, though it runs into the cut at the top. I saw four new saws ruined in two days just this way.

Saw collars do not always keep in the right shape, and should be watched closely. The loose one is not so much affected, while the fast one often has its outer edge more or less cramped over by saws becoming hot and dishing. This may be hardly perceptible, but it has a tendency to allow the saw to incline out of the log.

The eye of all saws should be reamed a trifle on each side, also the lug pin holes. It requires very close observation to detect any fullness around the stem or pin, but it may often be there, nevertheless. There are few new saws properly filed when sent out from the factory, the log saws especially should be filed right, and instructions given not to change the filing. Then, if the saw does not run right, look for the trouble elsewhere.

Be certain that your mandrel is level, with just a trifle lead, with but little end motion, and no side motion in the journals. Also notice that your saw is perfectly flat when tightened on the mandrel. It is not safe to trust to the eye, but use a straightedge.

It does not always happen that a new saw is properly adjusted to speed, which is found out best by actual test. Should the saw be too open for the speed, it is best to have the saw lean a little to the log, that is, slightly concaved; it will not be so liable to dish, but will incline a little into the log, which is all right.

An ounce of prevention making a pound of cure can be no better applied than to a new saw, and this subject is one that should engross the most earnest attention of the owner, superintendent or foreman every time one is brought into the mill, and saw salesmen should be better posted in the matter and be instructed to always call attention to it whenever they are not positively sure the saw is going into the hands of properly educated parties. The observance of these few simple hints may result in avoiding much loss and annoyance.

ANOTHER PROFITABLE DEAL.

THE McArthur Bros., of Toronto, who have been among the most successful lumbermen in Canada, are now operating in Wisconsin. It will be remembered that recently they sold a body of Canadian timber for \$550,000 to Hurst & Fisher, of Michigan, a property that cost them, fifteen years previous, \$75,000. Report tells of a profitable sale they have just made of the Ophir gold mine, near Belleville. Two years ago they paid \$7,500 for it, and they have now sold it to the International Development Co. for \$100,000. Sound common sense and shrewd business foresight, we opine, have played successfully with this prosperous concern.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE lumber year in Michigan will come to a close with operators, large and small, carrying a contented countenance. A good year's business is the record of almost everyone; and it is a long day since the lumbermen went into winter quarters with so little stock on the docks to carry over the winter. All are planning for another season's work, which it is anticipated will be of a profitable character. We will be obliged to depend on other sources for our supply of logs and it is expected that Canada will furnish the mills here with a heavy contingent.

DECLINE IN SHIPPING.

A comparative statement of the movement of forest products by water in this district shows the shipments of lumber and shingles for 1892 to have been the lowest in a quarter of a century. These are the figures as compiled by a local authority:

	Lumber.	Shingles.
1868	430,128,000	74,141,105
1869	474,912,425	86,178,500
1870	487,489,268	130,448,490
1871	516,629,474	142,661,500
1872	492,834,900	87,204,500
1873	452,768,562	38,521,500
1874	448,707,652	82,164,500
1875	445,149,155	117,832,500
1876	455,227,252	105,743,000
1877	539,886,074	162,594,250
1878	525,282,098	87,699,380
1879	678,298,866	222,602,731
1880	769,573,000	168,145,400
1881	833,059,939	149,816,000
1882	858,344,000	176,376,500
1883	778,702,067	164,032,000
1884	734,938,460	153,333,000
1885	659,565,000	129,549,005
1886	591,013,100	117,494,000
1887	486,285,000	85,698,000
1888	451,391,000	75,892,000
1889	432,130,000	98,997,000
1890	409,972,000	89,249,000
1891	404,577,000	80,487,000
1892	347,866,091	60,547,000

BITS OF LUMBER.

Hon. R. A. Loveland, of the Saginaw Salt and Lumber Co., will winter in California.

Report has it that G. T. Hurst, of Wyandotte, is negotiating for a large body of Georgian Bay timber.

Alpena has manufactured about 177,000,000 feet of lumber this season; somewhat less than during 1891.

A new lake log towing company is likely to be started here, in which Sibley & Bearinger will hold an important interest.

The Saginaw Lumber Company has been incorporated with \$150,000 capital, to do business in Chicago, by C. J. Beecham, Dwight K. Tripp and Warren S. Morgan.

The owners of the Michigan Lumber Co., whose mills at Vancouver, B. C., were destroyed by fire, are H. R. Morse, Harry Morse and Diana Richardson, of Alpena, Mich.

L. P. Mason, who has carried on extensive operations in this district for many years, has bought and shipped about 50,000 feet the past season. He has a large interest in Oregon.

The mills are pretty well closed down for the season. The Saginaw Lumber and Salt Co. have cut 25,000,000 feet, with 10,000,000 feet cut by other mills. C. Merrill & Co. cut 20,000,000 feet.

The Collin & Parker Lumber Co., of Muskegon, Mich., of which W. W. Collin is president and C. H. Parker, secretary and treasurer, have covered their property here with chattel mortgages aggregating \$158,000. The capital stock of the company, which has been doing an extensive yard business, is \$300,000. President Collin refused to discuss the situation of the company, and it is impossible to learn their standing assets and liabilities. The trouble is said to be a sequence to that of lumberman Crosby of Greenville, who was once interested in the business here.

It is stated that the Sage Mill has closed its career. There has been some talk of its being leased and run another season but it is an old style mill and as extensive repairs and improvements would be necessary it is hardly likely that anything will come out of it. The mill has made Mr. Sage a good pot of money. He began lumbering on Lake Simcoe, Ont., in 1857, building a mill of 10,000,000 capacity and owning a large body of timber. During the war he had some large government contracts and for lumber that cost \$14 from the tree laid down in New York he obtained \$60 and \$75 a thousand. His motto was to buy at the lowest and sell at the highest price. The lumber used in the pontoon bridges by which the army of the Potomac crossed the Rappahannock was cut by Mr. Sage. Owing to his advanced age it is understood that he will retire from the lumber manufacturing business.

SAGINAW, Mich., Dec. 27, 1892.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

INTEREST in lumber affairs, just at this season of the year, is of a two-fold character. It is a season of quietude, if for no other reason, because the hum of the saw mill machinery is not to be heard. Mills are closed down. But the activity of the saw is only transferred to that of the woodman's axe, which, if muffled to most ears by virtue of distance, is none the less active. Large work is being done in the woods this winter. It is a season of expectancy, for lumbermen are now, to use a political expression, counting noses; books are being balanced, and the year's accounting of business is being made. A month later I hope to give you some figures regarding the season's work, but it is not anticipating too much to say that it will prove the most satisfactory for some years.

EDWARDS' NEW MILL.

Most of the mills will undergo repairs during the shut-down term, that they may be fully equal to the work that will await them in the spring. Work on Edwards' new mill, on the site for so many years occupied by the McLaren mill, is being pushed forward rapidly. Every part of the structure is to be of the most substantial character. The main building will project somewhat further into the river than did the old building, and for that purpose a large quantity of the cliff is now being removed. The outside dimensions of the main building are 130 x 80 feet. It will be fully equipped throughout with the very latest appliances and improvements in the way of machinery, which will comprise two large band saws, one gang, edgers, hashers and butting saws. There will also be circulars operated at the east side of the main building for cutting dimension timber although it is not expected that the circulars will be in position this winter, and the band saws will handle that class of work in the early part of next season. On the west side will be placed lath and shingle saws. The sawing floor will be slightly raised above the present platform to facilitate the handling of lumber from the saws and in order to reduce the vibration consequent upon the heavy overhead work, the roof will be as light and plain as is consistent with the necessary strength. A large number of hands will be employed, and the capacity is expected to be upwards of 200,000 per day.

THE PARRY SOUND RAILWAY.

Our people are showing an appreciative interest in the building of the Parry Sound Colonization Railway owned by Mr. J. R. Booth, Ottawa's big lumberman. A great meeting was held here on 21st inst., in which the feeling of the citizens was strongly in favor of giving Mr. Booth a bonus. The advantages to the city would be many and in the opinion of our shrewdest business men it would be the means of making Ottawa, in a comparatively short time, a large commercial centre. This railway is the terminal end of the Ottawa, Arnprior & Parry Sound railway. Some twenty-five miles of the road have been completed west of Elmsdale, where the road crosses the North Bar branch of the Grand Trunk, and is now in running order. A large number of men are in the woods getting out next season's supply of logs for the mills in the vicinity of Georgian Bay—one firm alone having 400 men in camp. The lumber manufactured from these logs is now principally barged to the United States market via Georgian Bay, Lake Erie and Tonawanda, but on the completion of the Parry Sound road will seek the all rail route via Ottawa and Albany. Four or five small villages have sprung up along the line and several small saw mills are being built. Large quantities of bark, ties, pulpwood, cordwood and hardwood logs are being hauled in for shipment, there being good sleighing in the locality.

INDIFFERENT LENGTHS.

Mrs. Wood, of the Chaudiere, has signed an agreement to supply ten thousand loads of dry millwood to a number of leading firms in the city.

Mr. Levi Booth, foreman for J. R. Booth, has stated that whilst there would be more men going to the woods this winter than last from the fact that the lumbermen had a good season, still there will not be so many men in the shanties as when square timber was largely got out and there were more mills running.

The Deschenes mills at Aylmer are undergoing vast improvements at present, and ere spring they will be classed among the best on the Ottawa. Messrs. Conroy have sixty men at work on them. A new dam is being built in order to obtain more water power, and the flumes into the mill are being deepened. Among the improvements will be a new band saw. Next season the machinery will run a great deal faster than ever, and the cut is expected to be double that of former years. The firm has more men in the shanties this winter and will get out more logs than usual.

OTTAWA, Can., Dec. 27, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

NO inconsiderable amount of lumber has been exported from this province during the month. We are not securing the volume of foreign trade we should like, and which, out of our great resources, we are well able to supply. New developments, however, may be taken as mile posts marking the progress that is surely being made. The charter of a ship for the unusual destination of Cochin, China, augurs hopefully for the extent of the market for Pacific Coast lumber. Increased attention has been given to the United Kingdom trade this year, and as a result more vessels have loaded for this point than in former years. A vessel now loading at Vancouver will make the first trip to Montreal from this port. The British bark Mark Curry, 1,256 tons, is loading lumber for Cork, Ireland. The George Thompson sailed from New Westminster on the 8th inst. for Sydney, N. S. W., with a cargo consisting of 729,792 feet of rough, 26,942 feet of dressed lumber, and 301,000 laths, the value being \$7,844. Other shipments might be recorded, but these will indicate not an inactive month's trade.

Business with Australia is unsatisfactory in more ways than one. Depression still hangs over this part of the world limiting the lumber trade to be done. Unrest and uncertainty exists in regard to proposed changes in the lumber tariff. It is feared that the change will mean doubling the duty, and British Columbia, as was first anticipated, will not be exempt. If the change is as proposed it is thought that Melbourne will be closed for lumber until present stocks are worked off, which will likely be two years.

COAST CHIPS.

Troup Bros.' saw mill, Tranquille, is advertised for sale under a mortgage.

W. J. Snodgrass, of Le Grand, Oregon, contemplates erecting a saw mill at Okanagan Falls, B. C., with a capacity of 25,000 per day.

A logger named Max. Seback, employed at McKim's camp, near Port Neville, who was struck by the limbs of a falling tree about two weeks ago and injured internally, has since died.

The lumber village of Moodyville was pleasantly excited a week ago on the occasion of the marriage of Mr. Jas. White, sawyer in the mill, to Miss Randall, daughter of Mr. S. J. Randall, chief engineer.

A considerable loss is sustained in the destruction by fire of the mills of the Michigan Lumber Company at Vancouver. On Sept. 8th the planing mill and sash factory of this company were burned, and have not been rebuilt since. The fire that occurred this month completely destroyed the saw mill, which was a separate building. The origin of the fire is somewhat mysterious, as the mills have not been operated for seven weeks. The fire broke out about midnight shortly after the watchman had finished a circuit of the works and had gone into the office to eat his lunch. The loss is estimated at \$75,000, which is covered by insurance to the extent of \$32,000. The daily capacity of the mill was 125,000 logs.

NEW WESTMINSTER, B. C., Dec. 22, 1892.

THE TALLEST TREES.

THE Kew Bulletin tells us that "the tallest gum trees and the tallest trees in the world are found in the gullies of Victoria, several trees having been measured that were more than 400 feet high, and the highest was 471 feet." Visitors to the Indo-Colonial Exhibition will remember the size and beauty of other Australian woods, especially of the specimens exhibited in the Queensland court. The finest tree in the world is said to be the Agassiz, one of the Sequoia gigantea, 31 feet in diameter, nearly 300 feet in height, and of remarkable symmetry. At the Paris Exhibition of 1878 there were shown no fewer than 2,530 specimens of wood from India, belonging to 906 species and 432 genera. And a more recent exhibition, that held in Edinburgh in 1884, made us acquainted with the glories of the Japanese woods, and those of the Adaman and Nicobar Islands.

Go to the East India docks and you will see the huge logs of padowk (Pterocarpus Indicus), a tree rivaling mahogany in the depth of the colour of its wood and the density of its texture. Here, too, the stinkwood, the Oreodaphne bullata of South Africa, vies, in spite of its ill-chosen name with the teak (Tectona grandis) of Burmah and Malabar. Or, if you prefer to see growing timber, cross over to Germany and note the massive beach trees of Hesse Nassau, whose branchless stems contain no less than 19,525 cubic feet per hectare, or nearly 8,000 cubic feet of timber per acre.

THE NEWS.

ONTARIO.

—An iron furnace is to be made an addition to the mills of Gillies Bros., Braeside.

—The Pembroke Lumber Company's mills are being thoroughly repaired for spring operations.

—The steam barge Seguin, the property of the Parry Sound Lumber Co., is reported to have sunk in Lake Huron.

—Jno. Milne & Sons, Huntsville, write: "Business has been good with us this year, and we will run full blast all winter."

—Cameron & Curry have sold to Edward Smith eight hundred acres of bush land in Rochester township, Essex county, for \$28,000.

—David Miller, Washago, is getting out shingle timber on the Head River, where he has purchased the timber on four hundred acres.

—Geo. Buck & Co., saw and shingle mill, Collingwood, have sold their mill to D. G. Cooper. The Messrs. Buck are at present out of business.

—A three-masted vessel laden with lumber drifted on a rock near Michael's Bay, a few weeks ago, and sunk. All the crew were saved except the female cook.

—Gropp & Ganshaw, formerly with the Beck Mfg. Co., Pen-tanguishene, have erected and will operate, on their own account, a shingle mill on the Vint Line, Tiny.

—Part of the McClymont mill at New Edinburgh is being fitted up by McLaren's with shingle machinery. It is the intention to manufacture shingles there all winter.

—A local contemporary says that the cut of logs this winter in the Parry Sound district will be exceptionally heavy. Shipping during the season just closed is reported to have been brisk.

—A few weeks ago Michael Manigan, of the Deseronto works, Deseronto, with his gang of men, unloaded from cars, placed on rail and stowed on the steamer Reliance 74,174 feet of lumber in one hour and eight minutes.

—Rumor has it that the old established firm of McLaren & Company, Ottawa, lumber manufacturers, is on the eve of transferring its saw mills, timber limits and interests on the Du Lievre and its many tributaries to an American syndicate.

—The MacCormack estate of Lemieux, near Casselman, was sold last week by private sale to F. McCaffery, of Nicolet, Que., for 35 cents on the dollar. W. N. Barry, of Chesterville, is putting machinery in the mill, and preparing to operate it next spring.

—Information has been received from Cleveland, Ohio, that Mr. John Lumsden, son of Mr. Alex. Lumsden, lumber merchant, of New Edinburgh, has been successful in his venture regarding the formation of a company to manufacture the patented machine drill which he invented some time ago, and that there is every prospect of a large and increasing demand.

—An evidence of the good-will existing between the Pembroke Lumber Company and its employees was illustrated in the social gathering held a fortnight ago, at the close of the work of the past season. Employees to the number of about sixty sat down to an oyster supper provided for them by the directors of the company. The chair was occupied by the president of the company, Thos. Deacon, Q.C., and there were also present Hon. P. White, Messrs. C. Chapman, John Beatty and the manager, Mr. John Bromley. Ample justice was done to the bivalves and accessories, followed by speeches and toasts from employers and employees. The latter were represented by Messrs. R. L. West and Joe White.

—A factory for making excelsior, or wood fibre, is being started in Chatham by the Ontario Excelsior Mfg. Co., prominent members of which are Mr. John Pratt, Messrs. McKeough & Trotter, and Mr. George Marris, of Tilbury; Messrs. Pratt and Marris, managers. The company will make coopers' stock, such as headings, hoops, etc., and wood fibre—the latter a staple article used by all large furniture firms and also for packing. Already over \$3,000 has been expended. The two-storey structure erected fronts seventy feet on Colborne street. The main building is of frame and adjoining is a large brick engine house. Mr. Pratt has patented a new knife for slicing the wood. It has forty knives making fifty revolutions per minute, and great things are expected of it.

NEW BRUNSWICK AND NOVA SCOTIA.

—A steam saw mill is being operated at Clarendon, N.B., by John Armstrong.

MANITOBA AND THE NORTH-WEST.

—Leo Gaetz, of Red Deer, N.W.T., has sold his saw and planing mill to Mr. McMurray, from Manitoba, who will place a number of men in the bush to cut logs.

BRITISH COLUMBIA.

—Murdock A. Morrison, carpenter and builder, Victoria, has assigned.

—The Royal City Planing Mills, at New Westminster, are making frequent shipments of car sill timber to the Crossen car works at Cobourg, Ont.

—Word has been received from the Parker lumber mill at Belfast, that two loggers, Dave Frasier and Hank Downie, had been attacked by Indians with long knives. Downie had his bowels cut out and died. Frasier received dangerous but not fatal wounds on the face and neck.

—A. J. Smith, planing-mill man, Victoria, is in difficulties and has assigned. In 1886 he bought out his partner, Clark, paying him \$6,600 for his interest in the business, and since that time Mr. Smith has appeared lax in looking after his affairs. At any rate, he has made an assignment.

UNITED STATES.

—A steamship line is to be put on between Seattle and Honolulu, Sandwich islands, beginning the run on Feb. 1.

—W. H. Greenleaf, the Litchfield lumberman, is credited with the intention of building a shingle mill in the Puget Sound country.

—In a shingle mill at Gray's Harbor, Wash., recently, the entire works were kept running all day on a single cedar stick, which made 188,500 shingles.

—Figuring is being done to change W. & A. McArthur's water mill at Cheboygan, Mich., into a pulp mill; also for building a mill on the lake shore.

—A newspaper report from Rolla, N.D., states that prominent citizens are involved in the prosecutions for fraudulent timber land entries now in progress.

—Not less than 50,000,000 feet of lumber has been shipped out of Duluth Superior this season, far in excess of any previous record, and next year this season's shipments will be doubled.

—Logs to the amount of 18,000,000 feet have been frozen in above the sorting gap of the boom at Marinette, Wis. These will be in readiness to come through for the start of the mills in the spring.

—Francis E. Loud, of Weymouth, Mass., died Dec. 13. He was 77 years old, and for nearly fifty years was engaged in the lumber business with Edwin Pratt, under the firm name of Loud & Pratt.

—M. H. Wheeler, one of the pioneer lumbermen of Neenah, Wis., is to retire from business. He has been in the lumber business in Wisconsin since 1858. He has sold his camp outfit to other parties.

—A saw and grist mill has just been completed on Bartholomew creek, Idaho, the saw mill having a daily capacity of 15,000 feet. It was built by the government for the benefit of the Cœur d'Alene Indians.

—It is estimated that the cut of spruce logs in New England and New York state last year amounted to 1,200,000,000 feet. Of this, one-third, or about 400,000,000 feet, was utilized in the manufacture of wood pulp.

—This beats the big tree stories. L. B. Courtway, near Goldendale, Wash., raised one potato which made a dinner for six persons, and enough of the tuber remained for the supper of eight persons. All ate heartily.

—Abundance of snow is reported in the camps in the Menominee districts of Michigan. Considerable trouble, however, is experienced by there being no frost in the ground or swamps, and the roads have to be broken out and allowed to freeze before it is possible to do very good logging.

—Michigan lumbermen are reported to be buying largely of timber in Northern Wisconsin. Some tracts can be picked up at a low price, considering the demand for lumber and the decreasing supply within a short distance from the mill points. There is a great deal of logging railroad being built in Wisconsin this season in order to reach the outlying timber.

—The figures compiled by the Puget Sound Lumberman on the extent and amount of standing timber in the State of Washington, show the remarkable total of 300,000,000,000 feet, or to be more comprehensible—if it be possible in dealing with such big figures—three hundred thousand million feet. In nine of the southern states of this country, in which yellow pine, pitch pine and cypress are grown, the total amount of standing timber is 200,000,000,000 feet. Michigan has only 24,000,000,000 feet of standing timber, according to the report of 1890.

—Nicolai Bros' mill, Westport, near Astoria, Ore., is peculiarly situated. It stands 1,700 feet above the Columbia river, a greater altitude than any other mill on that stream. It is surrounded by larch timber, estimated at 75,000,000 feet. The trees will average four feet in diameter at the base, and 75 feet to the lowest limb. The timber is clear on the outside

and knotty at the heart. The lumber is used for sash, doors, blinds and interior finish. It is straight grained and susceptible of a high polish. The clear stuff sells from \$30 to \$50 a thousand. The lumber is hauled five miles over a road that cost the Nicolai Bros. \$1,000 a mile to build it.

FIRES AND CASUALTIES.

FIRES.

—Robinson & Steen's mill at Revelstoke, B.C., burned. Loss \$10,000; uninsured. A new mill will be built.

—Kennedy Bros' saw mill, near Sundridge, Ont., was destroyed by fire a fortnight ago. Loss, \$3,000; insurance, \$2,000.

—The shingle mill of T. B. Tait, at Burk's Falls, Ont., has been burned. The loss is considerable, the insurance being for a limited amount only. Mr. Tait's camps were fired only a week previous.

—The main portion of the planing mill of J. M. Green, St. Thomas, Ont., was destroyed by fire on the 23rd ult. The loss is estimated at \$6,000 on machinery and \$4,000 on stock and building; insured for \$5,000.

—McAdam's camp, of John McQuire's shanty, at Eddy Lake, on Rathbun's limits, 11 miles beyond Mattawa, Ont., was destroyed by fire a fortnight ago. The personal belongings of some thirty-five men, besides sixty pairs of blankets and other supplies belonging to McQuire, went up in smoke.

—Mickle, Dymont & Sons' large sawmill, at Barrie, Ont., was totally destroyed by fire on the morning of Dec. 9th. The season's cut of lumber was saved. The general opinion is that incendiarism was the cause of the fire; loss about \$25,000; insured for \$6,300, divided between Royal and Northern.

CASUALTIES.

—A shantyman named Lamoreux was crushed to death while piling logs on the Bonnechere river, Ont.

—Mack Yoe, while running a saw in Dowling & Leighton's factory, Hamilton, Ont., lost part of the thumb and third finger.

—Jarvis Esterbrook, aged 22, was mangled to death in Holiday's stove mill, near Merlin, Ont. He was caught by a belt and carried into a pulley.

—Jas. Gillies, aged 20, employed in Kennedy & Saunders' planing mill, Pt. Arthur, Ont., is reported to have been drowned in the harbor while skating.

—John Brooks, while on a load of lumber taking it to his home, near Huntsville, Ont., was thrown down an embankment ten feet deep, and almost instantly killed.

—Thomas McCreary, teamster at McLaren's mill, Ottawa, Ont., may possibly be compelled to have his foot amputated through a team with a heavy load of lumber passing over it.

—A man named D. Jackes, from near Orillia, while skidding logs at Armstrong's camp, about twelve miles from Sundridge, Ont., had one of his legs crushed and broken by a log.

—Thos. Salmon, of Portage Du Fort, Que., an employee of Bronson & Weston's depot at Big Lake, who was taken sick at camp, died at the Pembroke hospital, to which he had been removed.

—Thomas McCaul, a lumberman employed in Carpenter's camp, near Murillo, Ont., received a terrible gash from a broad-axe in the hands of a fellow workman, in front of whom he was scoring, the whole calf of his leg being laid open by the blow.

—Mr. David McLaren, lumberman, New Edinburgh, Ont., has met with a painful accident. While standing on an arm chair to turn on the electric light, the chair over-balanced and threw him headlong, breaking one of the small bones of the wrist and inflicting severe bruises on the ribs.

—Wm. Gehl, an employee in Vaughan's saw mill, at Pt. Arthur, Ont., fell into a tub of water in the local brewery, where he had gone to return a borrowed chain. After several hours of terrible suffering he died. Deceased was at one time a prominent saw mill owner in Bruce county, but had met with reverses, and accepted the position of sawyer and edger in Pt. Arthur.

—A sad accident occurred at Sheppard & Morse's lumber yard, Ottawa, Ont., Dec. 30, by which Mr. Thomas Hurdman, a young man aged 21, son of Mr. George Hurdman, was instantly killed, and William Ascher, aged 16, was severely injured. The two young men were checking lumber in a box car for shipment to the United States when the shunting engine, through some mistake, struck the train of loaded box cars heavily, throwing the piled lumber on the young men, by which young Hurdman was instantly killed. The box cars are filled with lumber at each end and the space at the doorway in the middle of the cars is left with enough room for a man to load and unload the lumber. It was in this space the victims were standing when the lumber pitched forward. Both were badly mangled.

TRADE REVIEW.

Office of CANADA LUMBERMAN, (December 31, 1892. J

THE GENERAL SURVEY.

AS the closing month of the year, December has not been an over active month for present business.

Touching our own province trade has not been very brisk. In western Ontario the volume of business is lighter than in a corresponding period last year.

Local trade within the limits of Toronto continues as slow as ever. Nor is there yet any reason to expect a large revival in the near future.

Of Quebec and New Brunswick trade there is nothing special to note. That the season's shipping is an improvement over the year 1891 is the most encouraging item for comment.

Canadian trade with the United States grows apace and prices are advancing steadily. The revised price list in this issue under date of Toronto will be an indication to LUMBERMAN readers of the advance that has been made in Canadian forest products within a month.

BRITISH COLUMBIA.

Advices from the Pacific Coast indicate that lumber conditions are improving. The South American market, which had been an important export field for B. C. lumber, is recovering slowly from the troubles and internal difficulties that so terribly jeopardized business in that country some time ago.

UNITED STATES.

The one story comes from all the leading lumber markets of the United States of the exceptional smallness of stocks at the close of the year. No where can it be said that stocks of any volume are on hand and this circumstance—the gulf existing between supply and demand—is having a favorable influence on prices.

ber and Washington shingles. These are products that are destined to occupy no minor place in the markets of the front in a comparatively short time.

FOREIGN.

A recent review of trade considerations in the Timber Trades Journal, of London, Eng., does not present a very hopeful outlook for business for the new year.

TORONTO, ONT.

TORONTO, December 31, 1892.

Table listing lumber prices in Toronto, Ontario, including items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

OTTAWA, ONT.

OTTAWA, December 31, 1892.

Table listing lumber prices in Ottawa, Ontario, including items like Pine, good sidings, per M feet, b.m., Pine, good strips, etc.

BOSTON, MASS.

BOSTON, Mass., Dec. 31.—Supplies of spruce are difficult to secure, but it is expected as soon as the winter mills start up this obstacle will be removed.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing Eastern Pine prices for cargo or car load, including Nos. 1 and 2, 3, 4, etc.

WESTERN PINE—BY CAR LOAD.

Table listing Western Pine prices by car load, including Uppers, 1 in., 1 1/2 and 2 in., etc.

SPRUCE—BY CARGO.

Table listing Spruce prices by cargo, including Coarse, rough, Hemlock bds., etc.

LATH.

Table listing Lath prices, including Spruce by cargo, Shingles, etc.

SHINGLES.

Table listing Shingles prices, including No. 1, 2, 3, 4, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., Dec. 31.—For the time of the year trade for the month has been altogether satisfactory.

WHITE PINE.

Table listing White Pine prices, including Three uppers, 1 1/4, 1 1/2 and 2 inch, etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like 1 in siding, cutting up, 1 1/4 in selected, etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like 12 and 16 feet, mill run, 12 and 16 feet, No. 1 and 2, barn boards, etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like Mill run, mill culls out, Dressing and better, etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like 6, 7 or 8, mill run, mill culls out, etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like XXX, 18 in pine, Clear butts, pine, etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like No. 1, 1 1/4, No. 2, 1 1/4, etc.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Dec. 31.—The closing month of the year carries a good business record. Trade has been brisk, and of a character that would encourage the opinion that the year 1893 will be a satisfactory one for lumbermen.

WHITE PINE.

Table listing White Pine prices, including Shelving, No. 1, 13 in, Dressing, 1 1/4 in, etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like 1x10 and 12 in. (No 3 out), 1x6 and 8 in. (No 3 out), etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like 18 in. XXX, clear, 18 in. XX, 6 in. clear, etc.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including items like No. 1, 4 ft., No. 2, 4 ft., etc.

ALBANY, N.Y.

ALBANY, N.Y., Dec. 31.—Navigation is closed and business is now done by lumbermen from their up-town offices. Car trade is active, and though the cost of transportation by rail over water rates is from 50 to 75 cents, the winter promise of car trade would augur a brisk business for the coming months of the new year.

PINE.

Table listing Pine prices, including 2 1/2 in. and up, good, 4 in., 4 1/2 in., etc.

Table listing lumber prices in Albany, N.Y., including items like Pine, Sawed Pine, ex. XXXX, etc.

SAGINAW, MICH.

SAGINAW, Mich., Dec. 31.—No complaint can be made of the conditions of trade. The difficulty to be met now is the shortage of stocks. Many firms are entirely sold out, and no one can boast of large stocks on hand.

quiet for the reason that there is little stuff to wholesale. Prices are firm and will likely advance.

FINISHING LUMBER—ROUGH.	
Uppers, 1, 1½ and 1½	45 00
2 in.	46 00
Selects, 1 in.	38 00
1½ and 1½	40 00
2 in.	40 00
SIDING.	
Clear, ½ in.	24 00
¾ in.	48 00
Select, ½ in.	21 00
¾ in.	41 00
TIMBER, JOIST AND SCANTLING.	
2x4 to 10x10, 12, 14 and 16 ft.	11 00
18 ft.	13 00
For each additional 2 ft. add \$1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.	
SHINGLES.	
XXX 18 in. Climax	3 60
XXX Saginaw	3 40
XX Climax	2 25
18 in. 4 in. c. b.	1 00
LATH.	
Lath, No 1, white pine	2 25
Lath, No. 2, W. pine, Norway	1 65

NEW YORK CITY.

NEW YORK, Dec. 31.—No immediate activity prevails in lumber circles. Good hopes, however, with reasonable ground for the hope, are entertained of trade in the new year. White pine is in increasing demand and good orders are being placed. Twelve inch boards are scarce and the price shows an advance over quotations earlier in the season. Some agents claim that \$3 of an advance may be expected in certain grades of pine within the next few months. No inconsiderable export trade is doing with West Indies and South America, and some parcels are going forward to Australia.

WHITE PINE—WESTERN GRADES.	
Uppers, 1 in.	\$44 00@45 00
1½, 1½ and 2 in.	46 00 47 00
3 and 4 in.	55 00 58 00
Selects, 1 in.	40 00 41 00
1 in., all wide.	41 00 43 00
1½, 1½ and 2 in.	43 00 44 00
3 and 4 in.	52 00 53 00
Fine common, 1 in.	36 00 37 00
1½, 1½ and 2 in.	38 00 40 00
3 and 4 in.	46 00 48 00
Cutting up, 1 in. No. 1	28 00 30 00
No. 2	21 00 23 00
Thick, No. 1	29 00 32 00
No. 2	24 00 26 00
Common, No. 1, 10	22 00 23 00
and 12 in.	20 00 21 00
No. 2	20 00 21 00
No. 3	17 00 18 00
Coffin boards	20 00 22 00
Box, in.	\$13 50@14 00
Thicker	14 50 15 00
Ceil'g, base, fig. No. 1	40 00 42 00
No. 2	35 00 37 00
No. 3	24 00 26 00
Shelving, No. 1	30 00 32 00
No. 2	25 00 27 00
Molding, No. 1	36 00 37 00
No. 2	34 00 36 00
Bevel sid'g, clear	22 50 23 00
No. 1	22 00 22 50
No. 2	20 00 20 50
No. 3	16 00 17 00
Norway, c1, and No. 1	23 00 25 00
No. 2	20 00 22 00
Common	18 00 19 00

TRADE NOTES.

Mr. Alonza W. Spooner, known the country over for his copperine specialty, has been admitted a partner of the Queen City Oil Co., Toronto, and will be an active member of that firm. His copperine business at Port Hope runs along just the same, with Mr. Samuel Bennett as manager.

We learn that the order for the entire outfit of shingle machinery for the new mill now being erected by Parkin & Sons, of Lindsay, Ont., to replace the mill destroyed by fire recently, has been secured by F. J. Drake, of Belleville. There is little danger that the Messrs. Parkins will be disappointed in the work that Mr. Drake will do for them. It has been our privilege to examine with considerable care the mill machinery manufactured by Drake. His specialty is shingle machinery, and for years he has brought to bear on his work the strength of a master mechanic's mind, combined with an inventive turn in dealing with machinery, that is constantly adding improvements to the machines that bear his name.

COMING SALES.

At the Russel House, Ottawa, on 12th inst., an important sale of timber limits will be held. See ad.

On Tuesday, 10th inst., Suckling & Co., will offer for sale at their rooms, Toronto, several valuable timber berths situated on the Wahnapiæ river. See ad.

An auction sale of a band saw mill will take place on Thursday, 19th inst., at Perry Station, on the Canada Southern railway. The mill is a No. 2 Waterous. Particulars will be found in our advertising pages.

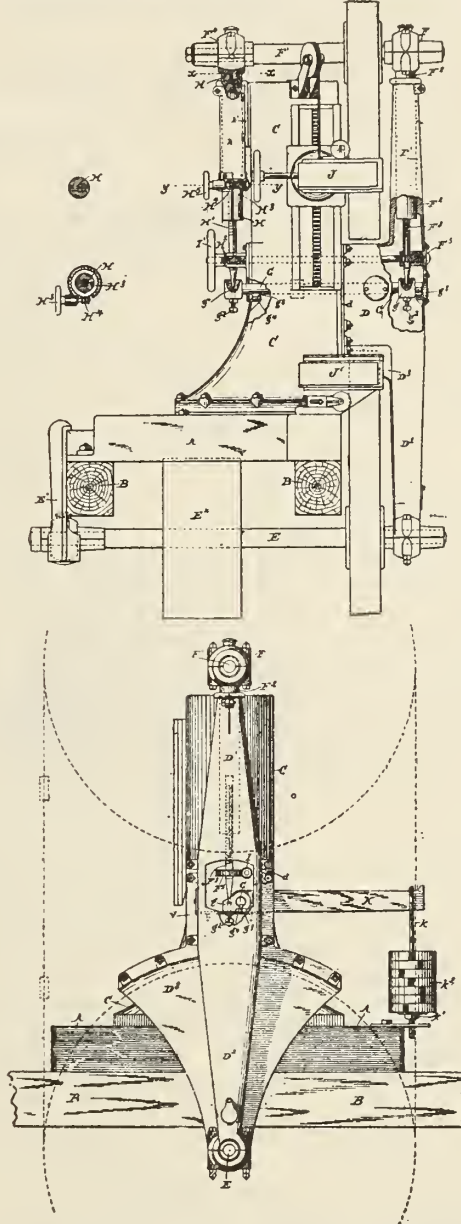
NEW PUBLICATIONS.

One of the most prized monthlies that comes to our table each month is the Arena, of Boston. This journal is noted for the courage and boldness of its monthly programmes, as well as its moral convictions, which has ever been one of the distinctive characters of this review. By publishing each month strong, short stories, biographical sketches, prose etchings and interesting pen pictures it has won its way into the hearts of tens of thousands of people who have been through these features attracted by its pages. The admirable portraits of leading thinkers and the introduction of fine illustrations when the text has called for them, have also contributed to its popularity, but doubtless the fact that it is in perfect touch with the most advanced, progressive and reformatory thought of the age and employs the ablest living thinkers to write for its columns also gives it a prestige enjoyed by no other great review.

IMPORTANT DECISION CONCERNING BAND SAWS.

DECEMBER 5th Judge McKenna, of the United States circuit court of the northern district of California, handed down a decision that is of interest to manufacturers of band saw mills. Smith, Myers & Schneier, of Cincinnati, O., brought suit against the Vulcan Iron Works, of San Francisco, for infringement of a patent granted to Samuel B. Smith, December 16, 1890, with a result as stated below. The following is reproduced from the patent office Gazette, of December 19, 1890, and will enable machinists to clearly understand the case:

442,645. BAND SAW MILL. Samuel R. Smith, Cincinnati, Ohio. Filed Sept. 24, 1889. Serial No. 324,950. (No Model.)



CLAIM—1. In a band saw mill, the combination, with the band wheels and main supporting frame or column, of an integral standard carrying the front bearings of the upper and lower band wheel shafts, said standard being attached to the front side of said main frame or column between said band wheels, substantially as hereinbefore set forth.

2. The combination, substantially as specified, of the hollow supporting column C, and the hollow casting D D' D², centrally secured to said column to furnish rigid supports for the front bearings of the upper and lower band wheel shaft.

3. A support for the front bearings of the band wheel shafts, having the flanged horizontal portion D, to be secured to the supporting frame, and the vertical arms D' D², cast in one piece with said central portion, the said part D' being bored to receive the adjustable bearing of the upper band wheel shaft.

4. The combination of the base plate A, cast in a single piece, the column C, having a flanged base to be secured to said base A, the front support for the band wheel shafts, consisting of the casting D D' D², and shield D³, together forming a supporting frame for band saw mills, substantially as hereinbefore set forth.

5. In a band saw mill, the combination of the supporting frame, the vertically adjustable bearings for the upper band wheel shaft, mounted in said frame, the transverse shaft G, mounted on knife edge bearings in said frame, and having arms g g' secured upon said shaft to support the bearings of said upper band wheel shaft, and the weighted lever K, secured upon said shaft between the knife edge bearings to counterpoise the bearings of the upper band wheel shaft, and provide a sensitive automatic adjustment for the same, whereby the saw is kept at the proper tension, substantially as hereinbefore set forth.

6. The combination, substantially as hereinbefore set forth, of the supporting frame, the transverse shaft G, having knife

edge bearings g' secured in it, the supporting plate g', resting on brackets in said frame, the arms g g', having steps at their outer ends, the hardened steel adjustment screws g', passing through said steps, the vertically adjustable bearings for the upper band wheel shaft, resting upon said screws, the lever K, secured upon said shaft, and projecting through the frame, the rod k upon the outer end of said lever K, the cap nut k' upon said rod, and the removable weights k', for the purpose specified.

7. In a band saw mill, the combination of a vertically or axially adjustable support for the rear bearing of the upper band wheel shaft, the said bearing eccentrically pivoted upon top of said support, and means, such as shown, to rotate and at the same time either elevate or lower said bearings, substantially as and for the purpose set forth.

8. The combination, in a band saw mill, of the supporting column C, the tubular bearing h, secured to it, the shaft bearing support H, fitted to slide and turn in said bearing, the supporting shaft H', united by screw threaded connection with said trunnion, the upper rear bearings F' for the band wheel shaft, eccentrically secured upon top of said shaft bearing support, and means, such as shown, to rotate said shaft bearing support for the purpose of adjusting the rear bearing of the band wheel shaft independent of the front bearing, substantially as shown and described.

9. The combination, substantially as hereinbefore set forth, of the vertically adjustable supports for the bearings of the upper band wheel shaft, means, such as shown, to simultaneously adjust said supports to elevate or lower said shaft, the rear bearings F', pivoted eccentrically upon said rear support, the worm wheel H², splined upon the rear support, the worm H³, meshing with said worm wheel, and the hand wheel H⁴ to actuate said worm, whereby the rear support is rotated within its bearing for the purpose set forth.

10. In a band saw mill, the combination of the column C, brackets projecting from said column, a rock shaft having knife edge bearings resting upon said brackets, a weighted lever, and two arms g g' secured upon said rock shaft, with the band wheel shaft and its boxes and rod supporting the said boxes, said rods resting upon the arms g g' substantially as shown and described.

It is declared by the decision that the band saw mills made and sold by the Vulcan Iron Works are infringements upon claims 1, 2, 3, 4, 5, 6 and 10 of the letters patent, and that the complainants recover the profits which have accrued from the mills manufactured, and the damages which the complainants have sustained, together with costs of suit. The Hon. E. H. Heacock, master in chancery, is appointed to ascertain these profits and damages. The Vulcan Iron Works are perpetually enjoined from making, using, selling or dealing in any band saw machinery containing the invention, improvements, or combinations covered by the claims named above.

PERSONAL.

Amos Bowen, lumberman, of Quebec city, is dead.

Jay Gould, the lion of Wall street, New York, who died during the past month, was a holder of considerable southern pine and cypress.

Mr. H. H. Cook, president of the Ontario Lumber Company, with headquarters in Toronto, will, it is said, open a branch office at Tonawanda, N.Y.

The wedding is chronicled of Miss Bella Thackray, daughter of the well-known Ottawa lumber manufacturer, to Mr. H. Huron of the interior department, at the Capital.

Ephraim Conrad, who died at Philadelphia, Pa., last month, was a member of the pioneer lumber firm at Port Washington, that State, starting in business at that point about 30 years ago.

Mr. Clarence Primrose, of Picton, N. S., who has been called to the Senate, in place of the late Hon. Mr. Grant, is a member of the firm of Primrose Bros., lumber and commission merchants.

The death of General W. W. Crosby, which occurred at La Crosse, Wis., Dec. 14th, removes another old-time lumberman on Black river. He was born in Blandford, Mass., in the year 1818, consequently was 74 years of age.

Ram Chunder Tatt, of Howrah, Bengal, India, is one of many new subscribers whose names have been added to the LUMBERMAN lists during the past few weeks. The LUMBERMAN subscription lists pretty well skirt the globe.

Mr. J. W. Philips, well known throughout Canada and in Newfoundland, died at his residence, Toronto, on 27th ult. Mr. Philips had large financial interests in lumbering in Newfoundland. He was at one time an alderman of this city.

There died at Ottawa, a week ago, Mrs. John Gunn, who had been a resident of the Capital for fifty-six years. She was wife to John Gunn, who survives her, the oldest lumber culler in Canada, and has for years been connected with the firm of McLaren & Co.

Our Michigan correspondent notes the fact that the veteran lumber manufacturer, Mr. Sage, of Saginaw, who is about retiring from lumbering, obtained his first knowledge of the business on Lake Simcoe, in this province, thirty-six years ago. At that time he had a mill of 10,000,000 capacity, and was possessed of large holdings of Canadian timber.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

WANTED—BY YOUNG MAN—SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care CANADA LUMBERMAN, Toronto.

PLANING MILL, SHOP AND DRY KILN

FORMERLY OCCUPIED BY GALL LUMBER Company; power supplied. Railway siding into premises.

N. V. KUHLMAN, 107 Niagara St., Toronto.

For Sale

SEMI-PORTABLE SAW MILL AND FOUR hundred acres of land, heavily timbered with birch, maple, elm, hemlock and cedar, in one of the best farming sections of the province. A decided bargain.

Apply to JAMES SLOANE, Melancthon P.O., Co. Dufferin.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly first and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, 1 and 1 1/2, all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long.

Address all particulars as to dryness, quality, quantity on hand and price, to P.O. Box 2144, New York, N.Y.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties banding same should communicate with

I.C.L., care CANADA LUMBERMAN, Toronto.

CANADA PINE FOR SALE.

FOUR WELL-WATERED BERTHS; VIRGIN timber; all within eighteen miles of the Georgian Bay. Apply

BOX "X,"

CANADA LUMBERMAN.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

P.O. Box 2144, NEW YORK.

Rochester Bros.

: : COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

J. D. SHIER

MANUFACTURER OF

Lumber, Lath & Shingles

BRACEBRIDGE, ONT.

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-HAND Boilers, Engines and General Machinery for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

ONE 10 x 28 ALMOST NEW WHEELLOCK engine, rated 41 h.p., without condenser.

ONE ALMOST NEW STEEL BOILER, WATEROUS make, 48 in. dia. x 14 ft. long.

ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 4 1/2 in. tubes, in first-class order.

ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 3 3/4 in. tubes, in first-class shape.

THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.

ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.

TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.

ONE 4 H.P. UPRIGHT BOILER, ALMOST new.

ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S make.

TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.

ONE 6 x 10 SLIDE-VALVE ENGINE, REID & Bar make.

ONE 6 1/2 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.

TWO 5 1/2 x 9 SLIDE-VALVE ENGINES, BECKETT'S make.

ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.

ONE 15 H.P. ENGINE, English make.

ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.

ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:—

ONE 24-INCH MCGREGOR; GOURLAY & CO. make heavy surface planer, almost new.

TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.

ONE GOLDIE & McCULLOCH THREE-SIDE moulder.

ONE ONE-SIDE MOULDER.

TWO 34-INCH WHEELS BAND SAWING machines.

ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.

ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.

ONE BLIND SLAT TENONING MACHINE.

ONE GOOD SHAPER.

SIX GOOD SAW TABLES.

ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.

ONE WOOD FRAME TENONER IN GOOD shape.

ONE SET TWO HEAD BLOCK SAW MILL irons.

ONE SELF-ACTING SHINGLE MACHINE, Waterous make, with jointer.

TWO UPRIGHT SWING SHINGLE OR heading machines, with jointers.

FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

SALE OF VALUABLE TIMBER LIMITS

—ON—

12th JANUARY, 1893

THERE WILL BE OFFERED FOR SALE by public auction at the Russell House in the City of Ottawa on

Thursday, the Twelfth day of January, 1893

at the hour of half-past two o'clock in the afternoon, the following valuable Timber Licenses and Limits situate in the Province of Quebec.

Parcel 1.—License No. 285, known as River Coulonge Berth A, and License No. 286, known as River Coulonge Berth B, both of the season 1891-92, containing an area of about fifty square miles each. Permanent numbers of above berths being 233 and 234 of 1873-74.

Parcel 2.—Berths Nos. 394 and 395, Black River, containing an area of about fifty square miles each.

Parcel 3.—Berths Nos. 138, 139 and 140, Township of Montcalm, River Rouge; 31 and a quarter square miles, Spruce and Pine.

The terms and conditions of sale will be made known at the time of the sale. For further particulars apply to Messrs. Gormully & Sinclair, Solicitors, Ottawa, or to W. L. Marler, Esq., Merchants Bank of Canada, at Ottawa.

Sale of Timber Limits

FOR SALE BY PUBLIC AUCTION, AT OUR warehouses, 64 Wellington street west, Toronto, at two o'clock in the afternoon of

Tuesday, January 10th, 1893

the following timber limits:

Parcel No. 1.—Berth No. 40, north shore Lake Huron, area 36 square miles, well timbered, short haul.

Parcel No. 2.—Berth No. 47, Township of Dryden, area 36 square miles.

Both these berths are on the Wahnapiatae River, and are very accessible via C.P.R., main line of which crosses Wahnapiatae River at Wahnapiatae Station on No. 47.

Terms and conditions made known on day of sale. For other information apply to Harriet Timmins, Mattawa.

SUCKLING & CO., Auctioneers.

WANTED SAW MILLS

Little Belt and Rocky Mountains

ALONG LINE OF

GREAT NORTHERN RAILWAY

For particulars write

J. M. HUCKINS

4 Palmer House Block, Toronto

or E. J. WHITNEY

Gen. Pass. Agent, St. Paul, Minn.



SCRIBNER'S LUMBER AND LOG BOOK

OVER ONE MILLION SOLD

Most complete Book of its kind ever published. Gives measurement of all kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round timber; hints to lumber dealers; wood measure; speed of circular saws; care of saws; cordwood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stave and heading bolts, etc. Standard book throughout the United States and Canada. Get the new illustrated edition of 1882. Ask your bookseller for it. Sent post paid for 35 cents.

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or A. G. MORTIMER, Toronto, Can.

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.. Sail, Tent and Awning Maker ..

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Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed. Every description of Lumbermen's Supplies and Waterproof Clothing.

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Lumber and Commission Merchant

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Limits looked after at Reasonable Rates . . .

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Is the Short Line to

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(Centres of the vast lumber interests of Michigan)

MT. PLEASANT, CLARE, REED CITY

BALDWIN, LUDINGTON, MANISTEE

AND MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from NEW YORK BUFFALO MONTREAL TORONTO to ST. PAUL, DULUTH and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and a great deal of information of value to those contemplating a trip to any of the above-mentioned points.

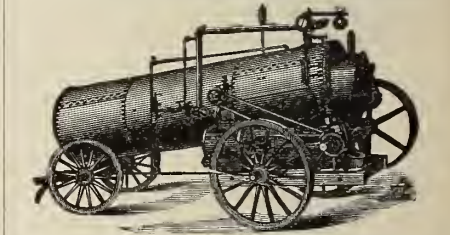
W. H. BALDWIN, JR., General Manager. W. F. POTTER, Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

GENERAL OFFICES: - SAGINAW, MICH.



The MONARCH BOILER (Patented) and HERCULES ENGINE



Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.

The 70 horse power can be taken over the roughest roads, or into the forest, and set up as easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

Write for circulars.

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Successors to

A. ROBB & SONS, Amherst Foundry and Amherst, N.S. Machine Works.

ESTABLISHED OVER 40 YEARS.

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T. & B.

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None Other Genuine

A Good Independent CONDENSER

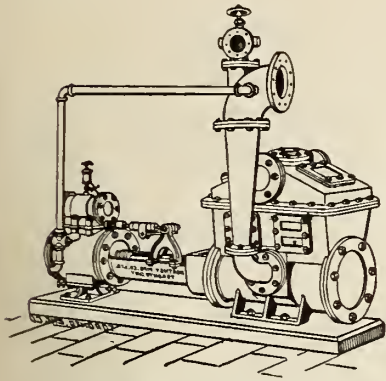
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IF YOU ARE WORKING YOUR
ENGINE HIGH PRESSURE

DON'T DELAY, BUT WRITE US PROMPTLY

NORTHEY MFG. CO., Ltd.

MANUFACTURERS . . .

TORONTO, ONT.



OUR INDEPENDENT
CONDENSER

Representative Lumber Manufacturers and Dealers

Town	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	Wat., Gang and Band, Saw 400m,
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	Water, Gang, Circular, Saw 90m,
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Scheil & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Circular, 3m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Steam, Circular, 40m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar	Steam, Circular, 16m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Oak, Oak Railway Ties, Paving Blocks	Stm., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	Waubaushe mill, stm., 200m;
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	Pt. Severn mill, water, 120m
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	Steam, 2 Circular, 80m
Waubaushe, Ont.	Waubaushe	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Pine only.	Steam, Circular, 6m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	Steam, Cir., Saw 14m, Sh. 20m
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Steam, Circular, 6m
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	Steam, Circular, 4m
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Water, Band and Circular, 100m
Hamilton, Ont.	Huntsville and Karine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 25m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Band and Circular, 100m
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	Steam, Circular, 40m
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	Steam, Circular, 20m
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Com.
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	Stm., Cir., Gang and Band, 140m
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Com.
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	Com.
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m.
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Steam, Circular and Gang, 60m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Steam, Circular and Band, 50m
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Steam, Circular, 200m
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationary, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakey, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hwds., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

.... MANUFACTURERS OF

Charcoal Iron Gilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finisbed and Balanced.

CORRESPONDENCE
SOLICITED

OAK TANNED BELTING

TORONTO

20 FRONT ST EAST
TELEPHONE 475

THE J.C. Mc LAREN BELTING CO

MONTREAL

Auction Sale —OF— BAND SAW MILL

THERE WILL BE OFFERED FOR SALE BY public auction, under a power of sale contained in a certain agreement, on

Thursday, the 19th January, inst.,
at the hour of two o'clock in the afternoon, at Perry Station, on the Canada Southern railway, one No. 2 Waterous Band Mill, four ten-inch saws, and complete filing-room machinery; three-block heavy carriage; Cunningham steam feed; friction log jack; three-saw gang edger; two-saw trimmer; slab saw; live rolls;

log and lumber car; all driven by a 14x18 straight-line engine and a 60x13-ft. 6-in. steel boiler. Machinery all new and only operated a few months, cutting about 500,000 feet of stock.
The above machinery can be seen at any time on the premises at Perry Station.
Terms of sale: Twenty per cent. cash at time of sale, balance within thirty days.
For further particulars enquire of the undersigned.
Dated at Brantford, Ont., 3rd January, 1893.
WILSON & WATTS,
Vendor's Solicitors.



THOS. WHALEY, President

W. E. HUTCHINSON, Sec.-Treas.

The Whaley Lumber Co., Limited of HUNTSVILLE, ONT.

Manufacturers of

White Pine Lumber, Bill Stuff, Lath and Shingles
Also HARDWOOD LUMBER

All Orders promptly attended to First-class facilities for Shipping
CORRESPONDENCE SOLICITED

DONOGH & OLIVER

WHOLESALE DEALERS IN

LUMBER

OFFICE
Nos. 213, 214 and 215
Board of Trade Building
Toronto, Ont.

F. E. DIXON & CO.

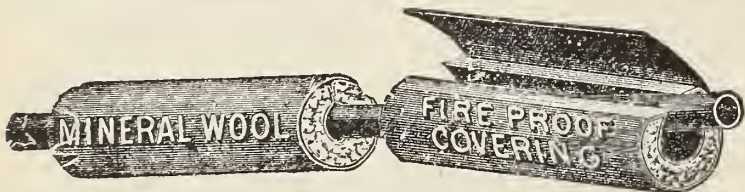
MANUFACTURERS OF

Star Rivet LEATHER BELTING

70 KING ST. EAST

WRITE FOR DISCOUNTS

Toronto



MINERAL WOOL STEAM PIPE AND BOILER COVERING

Saves enough fuel to pay for itself in one season.

Is Fire-proof, Frost-proof, Vermin-proof and Indestructible

CANADIAN MINERAL WOOL CO., LTD. 122 BAY ST., TORONTO

THIS IS 1893 ... WHAT CAN WE DO FOR YOU?

OUR STOCK OF

NEW AND SECOND-HAND MACHINERY FOR SAW AND PLANING MILLS

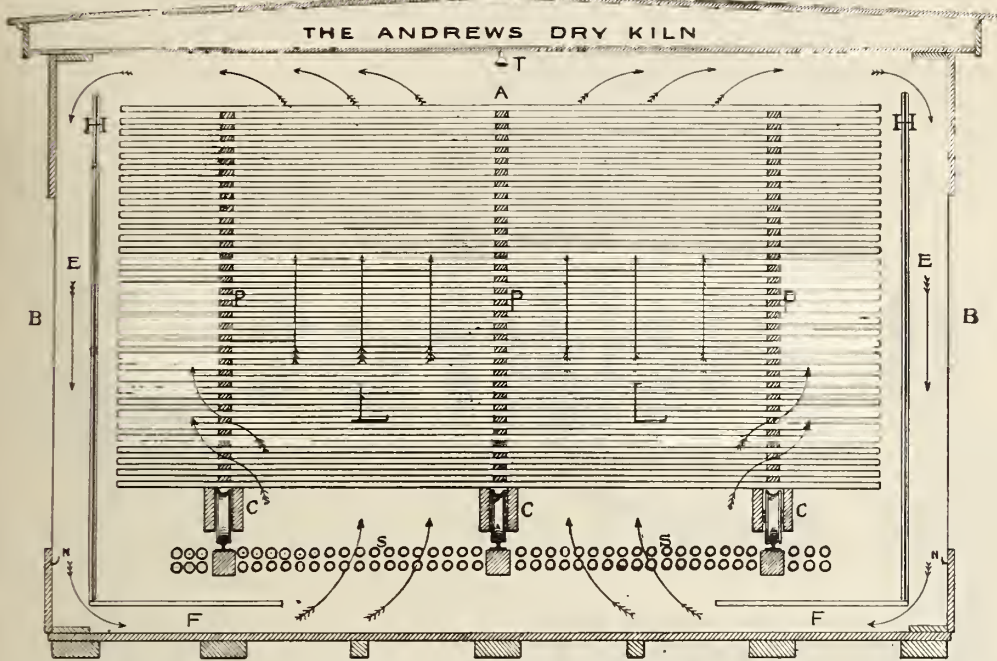
IS BOTH LARGE AND VARIED.

LUMBERMEN who contemplate making changes or additions to their plant before next cutting season should communicate with

H. W. PETRIE, TORONTO, ONT. SEND FOR FREE CATALOGUE

THE ANDREWS DRYER

For Lumber, Lath, Shingles, Staves, etc.



This system and apparatus covered by letters patent.
 A—Drying-Room. BB—Brass Condensing-Walls. CCC—Lumber Cars. EE—Down Air-Flues. FF—Bottom Air-Flue. HH—Inside Walls, protecting meta^l from heat. LL—Lumber on cars. NN—Brass Gutters for receiving condensed moisture. PPP—Sticks between lumber. SS—Double Steam-Coils. T—Automatic Steam Fire-Extinguishers. Arrows show direction of currents of air.

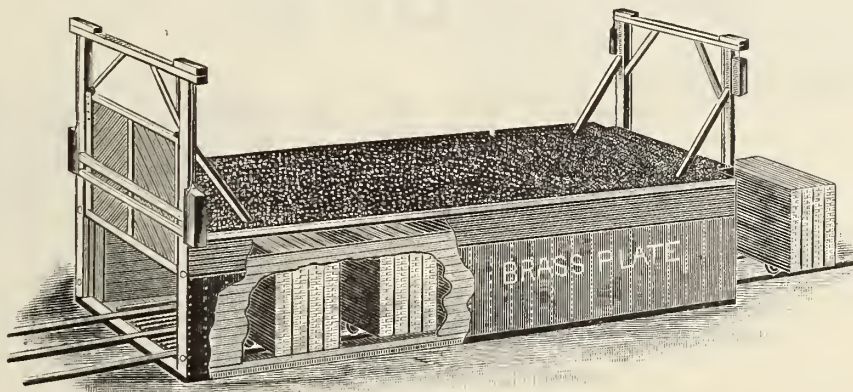
THIS DRYER

HAS PROVED TO PURCHASERS TO DO WHAT IS GUARANTEED IN SAVING THEM MONEY IN

Freight, Insurance, Time, Interest, Expense, Capital, Yard Room, Labor

There may be persons who do not appreciate the advantages of the artificial drying of lumber. But the shrewd men, in the manufacture of furniture and other woodwork where reputation would be sacrificed by a lack of proper material for good gluing and finishing, recognize a good system of drying as an important element of their success. High scientific authorities and thoroughly practical men are now agreed that the hot-blast and rapid-current systems ARE WASTEFUL, and that steam heat is the only safe means for artificial drying. The mode of applying steam heat most efficiently and economically is therefore now the essential point. The Andrews Dryer accomplishes this result more surely than any other known system.

- NO FAN
- NO ENGINE
- NO SMOKE
- NO CHIMNEY
- NO SPECIAL FIREMAN OR FUEL
- NO EXPENSIVE BRICKWORK
- NO RISK OF FIRE
- NO CHECKING OR WARPING
- NO CASE-HARDENING
- ... NO EQUAL ...



Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

“WE PUT GREEN SPRUCE IN DRIPPING WITH WATER, AND IN EIGHTEEN HOURS IT WAS DRYER THAN LUMBER THAT HAD BEEN STUCK UP IN THE YARD ALL SUMMER.”

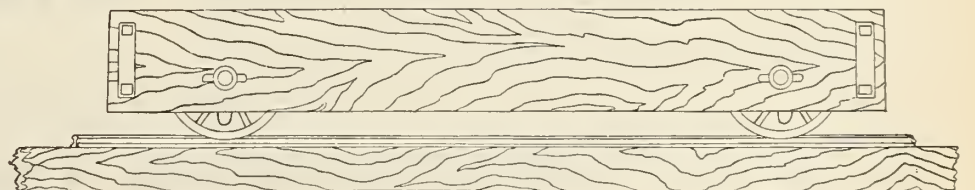
This is the verdict of a Quebec lumber firm, and we can give equal results every time.

The Andrews Lumber Dryer

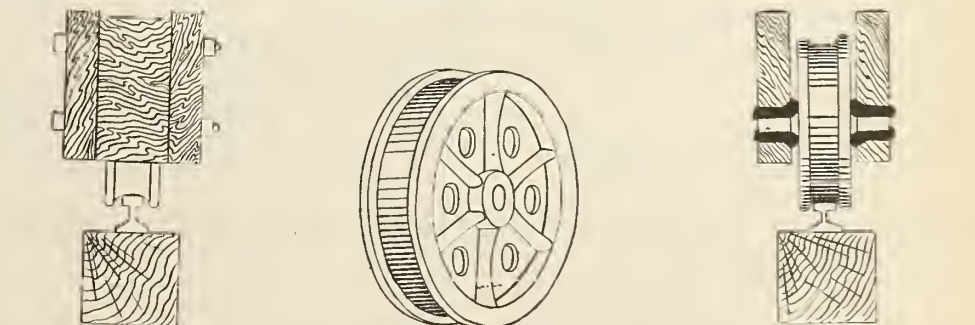
Has been proved to possess the following points of excellence:

- 1st. That its drying is rapid and perfect.
- 2nd. That external and internal checking and discoloration are entirely avoided by this method.
- 3rd. That the drying is done by a CONTINUOUS system and the temperature of the kiln is under absolute control at all times.
- 4th. That our Dryer is free from the varying air currents (always wasteful) incident to all fan and open-draft kilns.
- 5th. That our drying is done by the slow continuous movement of a large body of slightly-moistened air.
- 6th. That our condensing surface is so very large as to be adequate to precipitating the moisture of the saturated air with the least amount of movement.
- 7th. That our piping is tested by high pressure and every outfit is fully guaranteed.
- 8th. That by our improved system of drainage the freezing of pipes becomes impossible.

SEND FOR CIRCULARS



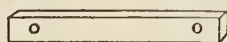
SIDE VIEW OF CAR AND TRACK.



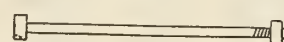
DOUBLE FLANGE WHEEL ON SINGLE TRACK

CAR WHEEL, DOUBLE FLANGE

SECTION OF CAR TRACK, SHOWING AXLE BOX.



STRAP WASHER



BOLT



AXLE

DOMINION DRY KILN COMPANY

CANADA LIFE BUILDING : : : TORONTO, ONT.

WE HAVE WASTED
E ARE WASTING
E WILL WASTE..

OUR GRAND
HERITAGE
OF PINE..

UNLESS THE BAND
SUPPLANTS
THE CIRCULAR..

A 14-GAUGE BAND SAW SAVES OUT OF AN 8-GAUGE
CIRCULAR'S SAWDUST PILE 5 ONE-INCH BOARDS ON
EVERY 32 CUT.



You'll Regret

**if you start
next season
without a**

BAND MILL

EVERY YEAR'S STOCK YOU WASTE, REDUCES THE PROFIT
FROM YOUR TIMBER LIMIT BOUGHT AT SUCH A HIGH PRICE

THE CHANGE TO THE
BAND IS INEVITABLE

Make it now

ORDER YOUR MILL EARLY BEFORE THE RUSH AND AVOID DISAPPOINTMENT.
HAVING DECIDED TO CHANGE, INVESTIGATE THE MERITS OF OUR BAND MILL.

"NONE SURPASS THE WATEROUS"

- | | |
|--------------------------------|--|
| IN QUANTITY AND QUALITY OF CUT | RIGIDITY AND STEADINESS UNDER MOTION |
| TRUE WHEELS | SENSITIVE TENSION |
| | FAST FEED |
| | NO BREAKAGE OF SAWS |
| | FEWER DETENTIONS FOR ADJUSTMENT OR REPAIRS |
| | NOR IN OUR FILING ROOM TOOLS |

SEND FOR NEW BAND MILL CIRCULAR AND 5/32 BOOKLET

WATEROUS Brantford,
Canada.

THE CANADIAN PHOTO-ENGRAVING BUREAU

16 Adelaide St. West, TORONTO



We have the most complete establishment in Canada, and by our different processes are enabled to make cuts for every and all purposes.

HALF-TONE CUTS made direct from photos our specialty.

LINE CUTS for Newspaper and other advertising purposes.

Send for Catalogue and Prices.

MOORE & ALEXANDER, Props.

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NEW & 2ND HAND MACHINERY
 ILLUSTRATED CATALOGUE FREE
H.W. PETRIE
 TORONTO, CANADA

USE SPOONER'S HONOR BRIGHT COPPERINE
 BEST MACHINERY OX-METAL EXTANT.
 CANADIAN MADE & STUMPS THE WORLD.
 QUALITIES TO DO ALL YOUR WORK.
 HARDWARES ALL YOUR WORK.
 COOL BEARINGS NO HOT BOXES.
 EASY AS AN OLD SHOE.
 GENUINE SAFEGUARD FOR ENGINEERS.
 HIGH CLASS METAL

Patented Solid Web Wood Split Pulley

Alexander Thomson, Bamboo and Art Furniture Manufacturer, Hamilton, writes:

"I find your Wood Split Pulleys give entire satisfaction. They do not slip, and are very handy to put on. I have had from twenty to twenty-five years' experience in pulleys, and I find none so satisfactory as yours, and am sure they will meet with success."

The CANT BROS. CO., Ltd.

Wood-working Machinery of all kinds

GALT, ONT., CANADA

Napanee Cement Works, Ltd.

NAPANEE MILLS, ONT.

MANUFACTURERS OF

STAR BRAND OF PORTLAND CEMENT

NONE BETTER; AND OF

NAPANEE CEMENT

PARTICULARLY ADAPTED FOR DAMS, SMOKE-STACKS, FOUNDATIONS, CULVERTS, CISTERNS, CELLARS, ETC. LARGELY BEING USED IN THE ST. LAWRENCE RIVER CANAL. ENDORSED BY LEADING RAILWAYS AND CONTRACTORS.

F. REDDAWAY & CO.
 MANUFACTURERS OF

CAMEL BRAND BELTING

BREAKING STRAIN 6 IN. "CAMEL" HAIR BELT 14,181 lbs.
 " " 6 IN. ENGLISH OAK DOUBLE LEATHER 7,522 "

ALSO MANUFACTURERS OF
LINEN FIRE HOSE
 MANCHESTER, ENGLAND. 57 ST. FRAS. XAVIER ST., MONTREAL

ROBIN & SADLER
 MANUFACTURERS OF
Leather Belting
 SPECIALTIES
 DYNAMO BELTS
 WATERPROOF BELTING
 MONTREAL TORONTO
 2518 & 2520 NOTRE DAME ST. 129 BAY ST.

Send for sample of our new SAWMILL BELT

H. G. ROSS & CO.

Real Estate, Fire and Life Insurance

SHIPPING AND GENERAL COMMISSION AGENTS

... TIMBER LIMITS AND FARMING LANDS A SPECIALTY. ...

A.B.C. CODE CABLE ADDRESS: "ROSS" NEW WESTMINSTER, B.C.

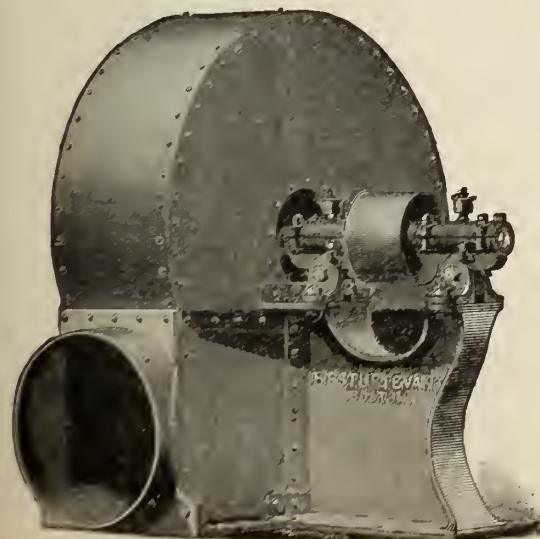
CORRESPONDENCE SOLICITED ... Box 273

A PARTNER'S DEATH

IN every partnership there are two factors of great importance—the managing brain and the capital employed—and if death removes either the business must suffer. It often happens that the brains belong to one man and the capital to another. If the manager dies the capital is worth less than before, and if the capitalist dies and his capital is withdrawn, the manager is crippled. It is clear that each has an insurable interest in the life of the other, because the profits of each depend in part upon the life of both. The firm should, therefore, insure for the benefit of the business on either the ten-twenty plan or the modified natural premium life of the Manufacturers'. These are the plans best adapted to suit the requirements of such cases. Let this statement be tested by comparison.

The Manufacturers' Life Ins. Co.

Corner Yonge and Colborne Sts., Toronto



THE STURTEVANT
 STEEL PLATE Planing Mill Exhausters

PROGRESSIVE LUMBER DRY KILNS
 Heating and Ventilating Apparatus for all classes of Buildings

B. F. STURTEVANT CO., Boston, Mass., U.S.A.

A. R. WILLIAMS, GENERAL AGENT FOR THE DOMINION + TORONTO AND MONTREAL

BRANCHES: - - 91 LIBERTY STREET, NEW YORK; 16 SOUTH CANAL STREET, CHICAGO
 135 NORTH THIRD STREET, PHILADELPHIA

CANADIAN
LUMBERMAN'S DIRECTORY
AND INDEX TO THE
Planing Mills and Sash and Door Factories



Preliminary Announcement :

Prompted by the many enquiries constantly being received from the United States, Europe and our own country for a Directory of the Lumbermen and Wood-Workers of the Dominion, we have decided to undertake the compilation of the same at once. The labor entailed in securing from each firm throughout the provinces the information necessary to make such a publication invaluable is very large, and we therefore hope that promptness will characterize replies to questions which will be asked through circulars to be issued to the trades interested at an early date.

It will be the aim of the publisher to compile not only a reliable and complete reference book, containing the name and address, shipping facilities and class of manufacture of each lumberman and wood-worker, but also to impart other information valuable alike to the manufacturer and dealer.

It is premature to announce the exact date of issue of this Directory, as much will depend upon the promptness of those interested in supplying the information asked, but the work will be pushed forward as expeditiously as possible, and we hope to announce its issue not later than September 1st, 1893.

The next issue of the LUMBERMAN will contain our prospectus, and in the meantime we hope to gather much valuable information.

All communications should be addressed

DIRECTORY DEPARTMENT,

CANADA LUMBERMAN,

TORONTO, ONT.

GALT MACHINE KNIFE WORKS



MACHINE KNIVES
OF EVERY DESCRIPTION FOR
Planing, Moulding and Stave Cutting
Send for Price List

PETER HAY, GALT, ONT.

J. W. MAITLAND — H. RIXON — J. G. AINSILE — W. STODART

MAITLAND, RIXON & CO.

OWEN SOUND, ONT.

Saw Millers and Lumber Dealers

All kinds of Building Material kept in stock

WE MAKE A ... SPECIALTY OF LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK
Quotations furnished on application

The Georgian Bay Consolidated Lumber Co.

A. M. DODGE, President. W. J. SHEPPARD, Superintendent.
JAS. SCOTT, Vice-President. C. P. STOCKING, Treasurer.

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PINE LUMBER, BILL STUFF, SHINGLES AND LATH

Shipments by Vessel or Rail

Address WAUBAUSHENE, Ont. or 24 King St. West, TORONTO

The Rathbun Company

DESERONTO, ONT.

MANUFACTURERS OF

Doors, Sash, Blinds, Stairs

And all kinds of House-Finishing Materials

CEDAR OIL for Purgin Boilers

CORRESPONDENCE SOLICITED

John Bertram & Sons

CANADA TOOL WORKS
DUNDAS, ONTARIO
MANUFACTURERS OF
WOOD-WORKING MACHINERY
MACHINE TOOLS, ETC.
WRITE FOR PRICES AND CATALOGUE

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J. L. Goodhue & Co.

MANUFACTURERS OF
LEATHER BELTING AND LACE LEATHER
Danville, Que.

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Wholesale and Retail Dealer in
ALL KINDS OF LUMBER
LUMBER SHIPPED TO ALL PARTS BY RAIL OR VESSEL
WHITBY, ONTARIO

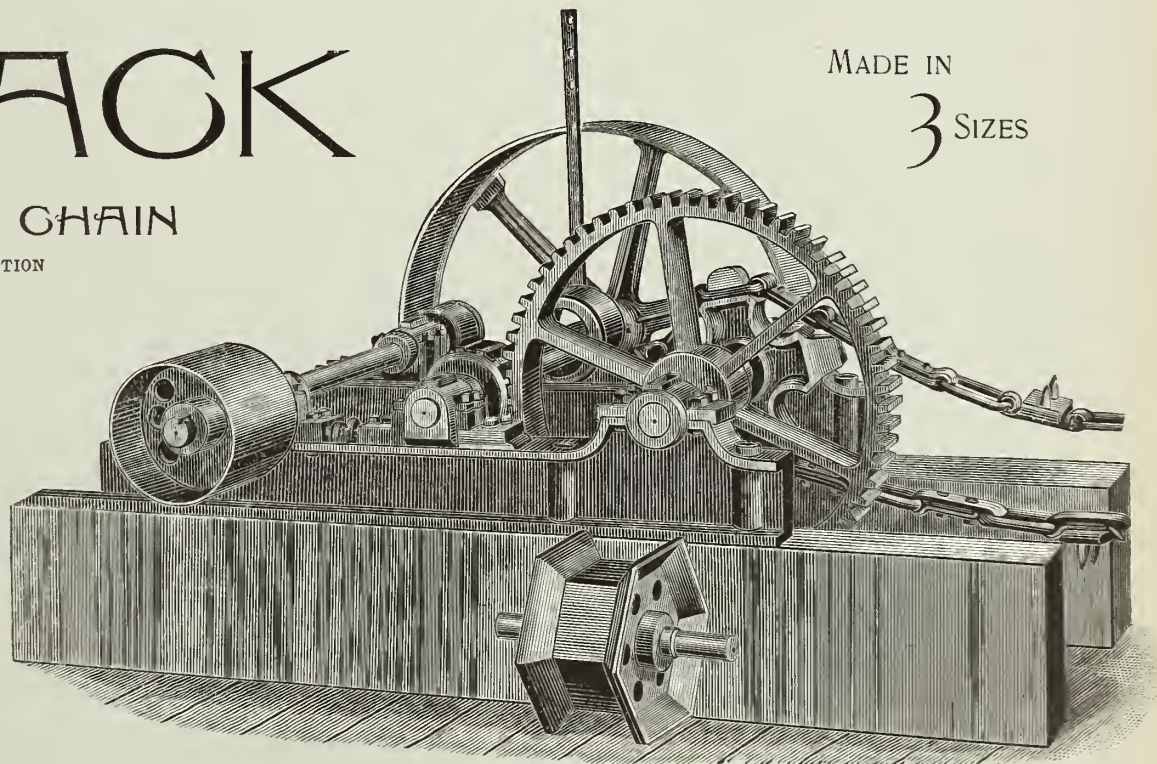
IMPROVED IRON FRAME

LOG JACK

WITH ENDLESS CHAIN

DRIVEN BY INTERNAL FRICTION

MADE IN
3 SIZES



THE most powerful and smoothest-running Jack Works made.

Easy to place in mill.

Can be placed on mill floor or on timbers underneath the floor.

No crossed belt is required.

Can be stopped or started instantly without a jar.

F. J. DRAKE



BELLEVILLE, ONT.

E. R. Burns Saw Co.

WORKS AT
.. PARKDALE



THE TORONTO BLADE
THIN BACK
EXTRAREFINED SILVER STEEL
TRADE MARK
ERBURNS SAW CO. TORONTO, ONT.



TAPER TOOTH

Toronto



Manufacturers
- of -

ALL KINDS OF

Circular
AND
LONG SAWS



THE TORONTO BLADE
THIN BACK
EXTRAREFINED SILVER STEEL
TRADE MARK
ERBURNS SAW CO. TORONTO, ONT.



LANCE TOOTH

THE DOMINION LEATHER BOARD GO., MONTREAL

MANUFACTURERS OF

ASBESTOS MILL BOARD

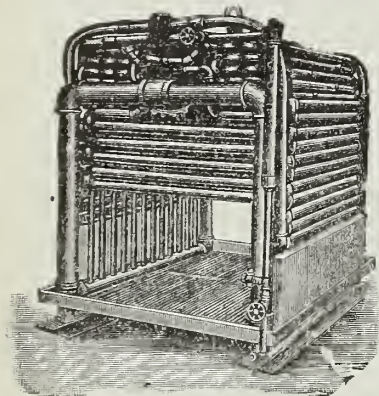
FOR STEAM PACKING

FRICTION PULLEY BOARD

THE BEST FRICTION KNOWN

Proprietors Sault au Recollet Paper Mills, making ROOFING, SHEATHING, FLOORING AND LINING FELT

THE ROBERTS SAFETY WATER TUBE MARINE BOILER



For Yachts, Launches
and other Steamers

THE ORIGINAL FIXED WATER LINE PIPE BOILER

NEARLY 400 IN USE

SAFE, RELIABLE, SIMPLE, LIGHT WEIGHT,
ECONOMICAL, NO SHOP REPAIRS, SMALL SPACE

Send for ILLUSTRATED PAMPHLET and other
reading matter, with hundreds of enthusiastic
letters from purchasers and engineers.

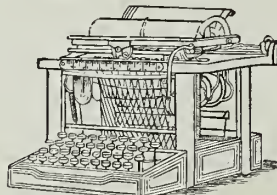
DOTY ENGINE WORKS CO.
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TORONTO, ONT.

Marine Engines, High Pressure, Compound and Triple Expansion
Armington & Sims High Speed Engines for Electrical Work

Marine, Stationary and Portable Boilers Hoisting and Vertical Engines, all sizes

1892 MODEL

Remington Typewriter



Unapproached for Excellence of Design and Con-
struction, Quality of Work, Simplicity
and Durability.

Send for Circular.

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Tel. 1207 10-12 Adelaide St. East

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COPYING DONE OPERATORS SUPPLIED

MONTREAL AGENCY:

SPACKMAN & CO., 164 St. James St.

TORONTO AGENCY OF

The Rathbun Co.

Are open to Purchase

Oak, Ash, Birch
Basswood
and Good Pine Lumber
Gedar and Pine Shingles

Manufacturers having such for sale are invited to com-
municate with

T. W. WALKER, Agent
TORONTO

Office Cor. Spadina Ave. and Front Street

Use McCOLL'S "LARDINE" AND HIGH GRADE
OTHER MACHINE OILS

Our CYLINDER OIL IS IN USE IN ALL THE
BIG MILLS

McCOLL BROS. & CO., . . . TORONTO

R. H. SMITH CO., LIMITED

ST. CATHARINES, ONT.

Sole Manufacturers

... OF ...

The "SIMONDS"
CIRCULAR SAWS

The "LEADER"
CROSS-CUT SAWS

THE BEST SAWS IN THE WORLD

None Genuine without our Trade Mark

OUR HAND SAWS cannot be excelled for variety,
quality, style or finish REPAIRING PROMPTLY ATTENDED TO

. . . Price List and Discounts on application . . .



We Manufacture SAWS of every description. Also GUTTING-BOX KNIVES

THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIV. }
NUMBER 2. }

TORONTO, ONT., FEBRUARY, 1893

{ TERMS, \$1.00 PER YEAR
{ SINGLE COPIES, 10 CENTS



MAGNOLIA METAL

— IN USE BY —

Eight Leading Governments

BEST ANTI-FRICTION METAL FOR

High-speed Engine, Dynamo, Rolling-mill, Steamship, Railroad, Saw-mill, Cotton-mill,
Paper-mill, Woolen-mill, Silk-mill, Jute-mill, Rubber-mill, Sugar-mill, Flour-mill
AND ALL MACHINERY BEARINGS

MAGNOLIA ANTI-FRICTION METAL GO. Owners and Sole Manufacturers

LONDON OFFICE: 75 QUEEN VICTORIA STREET
CHICAGO OFFICE: 41 TRADERS' BUILDING
MONTREAL OFFICE: H. McLAREN & CO., AGENTS

74 Cortlandt St., NEW YORK

RUBBER BELTING

MONARCH, RED STRIP AND LION BRANDS.

MANUFACTURED BY

THE GUTTA PERCHA & RUBBER MANUFACTURING CO. OF TORONTO.

OFFICE 61 & 63 FRONT ST. W. TORONTO.

FACTORIES AT PARKDALE, ONT.

WRITE FOR DISCOUNTS.

Automatic Arc Dynamos and Lamps
Direct Current Incandescent Dynamos
Alternating Current Incandescent Dynamos
Transformers of High Efficiency
Electric Motors All Electric Supplies

OUR record for the past ten years as
Electrical Manufacturers guaran-
tees purchasers satisfaction.

Ask our customers about cost of re-
pairs on Ball apparatus, which for
EFFICIENCY, ECONOMY
SIMPLICITY and SAFETY
are unexcelled.

AN ORDER
SOLICITED

Send for new pamphlet
of Motors and new
Book of Testimonials

THE BALL ELECTRIC LIGHT CO., LTD.

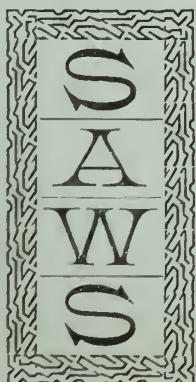
70 Pearl Street, TORONTO, ONT.



SHURLY & DIETRICH



MANUFACTURERS OF



THE ONLY SAW MANUFACTURERS IN THE
WORLD WHO EXPORT SAWS IN LARGE
QUANTITIES TO THE UNITED STATES

GALT, ONT.



SOLE PROPRIETORS OF THE SECRET CHEMICAL PROCESS OF TEMPERING :: Our Razor Steel Saws are Unequaled

THE PRESSCOTT BAND SAW-MILL

The
Prescott
Band Saw
Mill

in different sizes.



Ottawa, Can.,

July 5th, 1892.

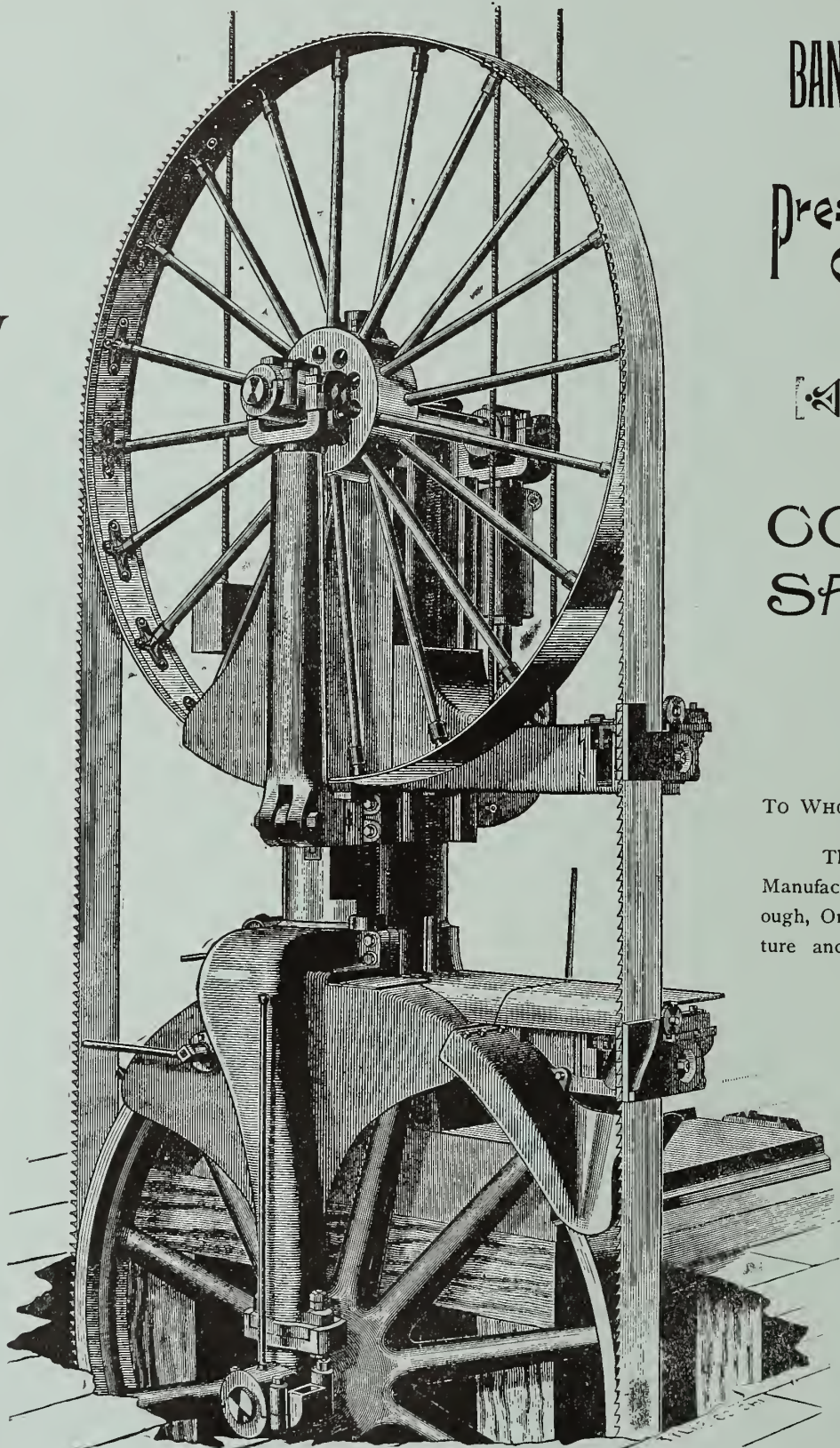
Dear Sirs :

It may interest you to know that on June 30th last, in eleven hours, the Band Mill—driven entirely by water—which we got from you, sawed

4,047 feet	1-inch
85 "	1¼ "
11,723 "	1½ "
5,726 "	2 "
85,038 "	3 "

106,619 feet.

Yours truly,
PERLEY & PATTEE.



BAND SAW-MILL CARRIAGES

HAVING

Prescott's Automatic
Carriage Offsets

Prescott's

Direct-acting
Steam Feeds

COVEL'S
SAW TOOLS

FOR FILING ROOM



TO WHOM IT MAY CONCERN:

This is to certify that the Wm. Hamilton Manufacturing Company, Limited, of Peterborough, Ontario, have been licensed to manufacture and sell throughout the Dominion of Canada, the Band Saw Mill known and called the "Prescott Patent Band Mill," also the device for Saw Mill Carriage known as the "Prescott Patent Offsetting Mechanism," and by virtue of said license the said Wm. Hamilton Manufacturing Company possess the exclusive right to build and sell said machines for Canada, the plans for said machines being furnished or approved by the undersigned.

(Signed)

D. CLINT PRESCOTT,

[COPY] Patentée.

SEND FOR ILLUSTRATED CATALOGUE TO

The Wm. Hamilton Manufacturing Co., Ltd.

PETERBOROUGH, ONT.

Branch Office: VANCOUVER, B. C.

THE CANADA LUMBERMAN

VOLUME XIV. }
NUMBER 2. }

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BY THE WAY.

An English firm has just contracted with one of the large shipping houses in Quebec for the export of 5,000 standards, St. Petersburg measure, during next summer from Montreal and Charlemagne, equal to 360,000 pcs., Quebec standard, and representing over \$250,000.

x x x x

An historic change is to be recorded in the formal passing of Perley & Pattee's lumber mill, Ottawa, into the possession of Mr. J. R. Booth. This mill is one of the oldest at the Chaudiere and made a fortune for the late Mr. W. G. Perley, M.P., and his surviving partner, Mr. G. B. Pattee. Perley & Pattee are not likely to be heard from again as a lumber concern, as other financial ventures will engage the attention of both Mr. Perley and Mr. Pattee.

x x x x

Mr. John I. Davidson has been elected a member of the Council of the Toronto Board of Trade. Mr. Davidson will by many, perhaps, be counted as a representative of the wholesale grocery trade, but it is to be remembered that he is also senior member of the large lumbering firm of Davidson, Hay & Co. It will be a matter of regret, however, that lumbering, the largest industry in Canada to-day, was not further strengthened by the re-election of Mr. Jno. Donogh to the Council. He has ever been a most useful and influential member, and directly and actively, by his large wholesale lumber trade, as distinct from the manufacturer or owner of timber limits, represents the lumber trade of city and country.

x x x x

The lumbermen of the Pacific coast have some concern in the recent tariff regulations of the Australian Parliament affecting lumber exported into that colony. The Southern Lumberman says: "So far the schedule agreed upon includes only Oregon or Washington fir, but it is probable that other classes of lumber will receive the attention of Australian legislators. So far as reported the duties on Pacific coast lumber are as follows: On sizes less than 8 x 2½ inches a duty of 5s. per 100 superficial feet is levied. On sizes less than 12 x 6 inches a duty of 2s. 6d. per 100 superficial feet is levied. On sizes 12 x 6 and upwards a duty of 1s. 6d. per 100 superficial feet is levied. All logs in rough or undressed of any size, admitted free." This statement, if correct, lets our British Columbia lumber out in the meantime.

x x x x

An offset to the Bryan Free Lumber Bill has been introduced into the American Congress by Congressman Wedock, of Michigan. The effect of this bill, says a United States cotemporary, should it become law, would be this: "Should the Canadian government reimpose the export duty on logs, as is threatened from time to time, this government will make a proportionate increase in the duty on lumber shipped into this country. A duty of \$1 to \$2 on logs would mean a corresponding increase in the duty on lumber. Our Canadian neighbors do not want their common grades of lumber debarred from the markets on this side of the line by any such provision. But the bill is not a law, and in the uncertainty of tariff legislation at the hands of the incoming congress, there is not much on which to even base a prediction concerning the fate of the bill. The measure will very generally receive the approval of the lumbermen of the United States, however." Evidently nothing practically hurtful is likely to be the effect of the bill. Just now the chief interest is in what the new administration will inaugurate in the way of tariff reform when it has become securely settled in power. Anything outside of this, at present, is simply playing at legislation.

CHARACTER SKETCH.

HON. W. B. IVES

PRESIDENT OF THE PRIVY COUNCIL.

"Heaven helps those who help themselves."—Old Proverb.

AS party government is conducted in the present day we are disposed to look upon certain men as occupying certain positions of responsibility and influence, not always because they are just "the man for the place," but for the reason that they represent some class interest that it is deemed desirable to conciliate, or for whose support it is worth making a bid. Thus we speak of one Cabinet minister representing the Orange element, another the Catholic hierarchy; one the temperance people, and he is offset, probably, by a liquor manufacturer. And similarly commercial interests of various kinds are supposed to have their particular champions within the walls of parliament and the councils of the nation.

It may be that injustice is sometimes done our politicians by attributing their success in the field of politics to the causes here suggested. However this may be, it is the old story of give a dog a bad name and hang him. The politician, when he is honest, and takes a sincere



HON. W. B. IVES.

stand on a public question, finds it a hard matter to impress his sincerity upon others. He will have attributed to him, in spite of his sincerity, selfish and sordid motives as the basis of his actions.

In the appointment of W. B. Ives, M.P., of Sherbrooke, Que., to the position of President of the Council, in the Thompson ministry, there will be those who will look upon him as a representative of the lumber industry, because he has been engaged in lumbering, just as some speak of Hon. E. H. Bronson, of Ottawa, as representing the same interest in the Mowat administration, because he is a prominent lumberman. A broader view, and the view that is more likely to be borne out in the experience of each, is that it is a coincidence that the dual position of Cabinet minister and lumberman applies in the case of these individuals. Rather, too, is it a compliment to the men engaged in the lumber trade that there are those among its members who can worthily hold the honorable positions to which these have been elected.

Mr. Ives is not a lumberman in the same sense as Mr. Bronson. Both are owners of saw mills and have a considerable financial interest in lumber. The latter is a lumberman by profession, the profession of the

former is law, he being called to the bar in 1857, and was constituted a Q.C. in October, 1880. Mr. Ives' interest in lumber is more of a speculative character, just as we find him director of a railroad company in Maine, and President of the Dominion Cattle Company, of Texas. He evidently has a strong leaning towards commercial affairs, and his legal training is not unlikely to prove a valuable adjunct to his operations along these lines. This interest has, however, gone beyond the mere investment of capital in the business. For some time he has been a student of tariff conditions, and somewhat specially in their relations to the lumber industry. Doing business in the Province of Quebec, where spruce lumber pays a duty of \$2 per thousand, going into the States, while logs go free, he has been a sturdy advocate of a re-imposition of the log duty, and has been heard on the question from his seat in Parliament.

Mr. Ives was born in the township of Compton, Que., Nov. 17, 1841. On November 17, 1869, he was married to Elizabeth E., only daughter of Hon. J. H. Pope, M. P., Minister of Railways. Mr. Ives first entered Parliament in 1878, and has been re-elected at each successive election. Personally he stands well with his friends and is popular and strong in the Eastern Townships, whose interests he has represented in the Commons for fifteen years.

A BOOK FOR LUMBERMEN.

READERS of the LUMBERMAN will be interested in the announcement made in our advertising pages of the intended publication of a Canadian Lumberman's Directory and Index to the planing mills and sash and door factories of Canada. Many enquiries have come to this office for such a work and to meet the call, which, we believe, is general to the lumbermen of the Dominion, the publisher of the CANADA LUMBERMAN now undertakes its publication. Necessarily it involves a large amount of labor and every possible care. Such a book can only properly serve its purpose by being correct and complete in every detail. Subscribers to the LUMBERMAN can lend substantial aid in this direction by forwarding to the publisher the information asked for in the announcement on page 15 of this month's LUMBERMAN. It is to be understood that the Directory will be much more than a directory of the names and nature of the business carried on by Canadian lumbermen, though this feature will hardly be too highly prized by the trade. The rules and regulations for the measurement and inspection of lumber at the leading lumber centres of Canada, and those of the United States, where Canadian lumbermen do business, will be embodied in the work, together with information of a practical and useful character to lumbermen and wood workers, not obtainable in collected form in any other book.

HERE IS A CHANCE.

An unusually good opening exists near Bracebridge for a man of limited capital to secure a first-class shingle mill and plant. The mill is practically new and exceptionally located. Unlimited timber resources, abundant water power and convenient shipping facilities. Further particulars of the estate may be obtained from Sheriff Bettes, Bracebridge, Ont.

NEW PUBLICATIONS.

The special illustrated number of Timber, of London, Eng., is a credit to trade journalism anywhere. It is, relatively, as massive in construction as some of the large timbers it illustrates. It might appropriately be termed an historical number, as the many illustrations and pen and ink sketches of the lumber interests of various parts of the world gives it a special value in this respect. We shall certainly keep it on file as a valuable number for future reference.

CANADIAN SHIPPING AND FREE LOGS.

BY WILLIAM LITTLE, MONTREAL, QUE.

IN previous communications, adverting to the ruinous trade condition of permitting Canadian saw logs to be exported free of export duty to the United States, while that country imposes duty on the sawn lumber made from similar logs, I endeavored to show what dire results must be entailed on the general interests of Canada; and so ramified are the injuries to be anticipated, I will now refer to one, the shipping interest, which from the apathy with which the subject is regarded by those connected with this trade would hardly be considered as to be at all affected by it.

It is now stated that the amount of pine timber to be cut the present winter, in the Georgian Bay and Lake Huron districts of Canada to be rafted across the lakes to supply American saw mills the coming season, is 400,000,000 feet, which shows it to be no trifling matter even at the present moment. We see from the published returns that the total amount of sea-going shipments of deals and boards from Montreal the past season was 160,000,000 feet. The amount of pine logs purposed to be rafted to the United States the coming summer, as said above, 400,000,000 feet, is $2\frac{1}{2}$ times as much—an amount equal to about 700,000 tons, or more than two-thirds the total sea-going tonnage (1,036,707 tons) of all kinds, steam and sail, entering this port the past season, which amount is to be largely increased in subsequent years till the whole territory is stripped as bare of timber as the lower peninsula of Michigan is to-day. So that if the Americans are allowed to raft our forests across the lakes as is purposed and to make their waters smooth, as they boast they will, towing Canadian saw logs to American saw mills, it is time to enquire what will become of the Canadian shipping interest, which is hereafter to have no part in the handling of the lumber? This is not simply an ordinary question of protection; it is rather one of preservation or ruin to this great Canadian interest, of which we have long been so justly proud. These 400,000,000 feet of saw logs to be towed to American saw mills this year, as is said above, means a loss to this interest of 700,000 tons of freight in a single season.

And aside from this I would like any of the advocates of this mistaken policy to tell us what industry is to open up for settlement or give freight or business to our Canadian lines in that section of Canada when this timber, the chief resource of this vast territory, is removed? A short ephemeral prosperity while our American cousins are transporting the wealth of that section across the water to build up their own country with the industry which nature provided for ours, but which we are wantonly discarding as of little value, will be all to be derived from it, soon to end in utter ruin; when the stranger journeying through our country, instead of seeing thriving, busy villages every few miles along his route to brighten the prospect, will behold nothing but the abomination of desolation on all sides through its whole extent. Surely there ought to be some grand object gained for the loss to Canada of all these advantages, but so far as I am aware no one has yet been able to discover where or what they are.

By our mistaken and mischievous policy we not only do nothing to delay this event, but actually encourage its early consummation by giving a bonus, through our fiscal policy, to our wealthy and more astute neighbor to enable him, by exceptional privileges, to rid us ("rob" us was the more appropriate term used by one of these American lumber princes when discussing the subject) of our forest property.

And to-day when Canadian saw mills are allowed to be burnt down or dismantled new mills are being erected on the American side of the line by those who do not own a foot of standing timber in their own country, to be wholly furnished with supplies from our now alas! entirely too scanty pine forests. As far north even as Lake Nipissing where a number of saw mills have recently been erected, I am told, logs are now being taken out to be sawn in Michigan and to withdraw from their mills their future source of supply. One has only to read the exultation of our neighbors at our folly to realize how serious the case is and how ridiculous we are acting in this matter.

Even the partial measure of compensation of free

lumber in exchange for free logs we prevent ourselves from obtaining, for when a measure was brought forward in the United States Congress last session by Mr. Bryan, of Nebraska, to put lumber of all kinds on the free list, he was at once balked in his efforts by being told that in so far as Canada was concerned they had already free Canadian lumber in having the logs free of duty on both sides of the line—thereby having to all intent free Canadian lumber.

Since then, of course, no further move in this direction has been made, for no American, let his politics be what they may, but would prefer having the manufacture of the timber in his own country instead of ours. Not only, as I have heretofore remarked, must we lose the manufacture, handling and shipping of our own forest property, but we must lose the laborer as well, for he will be compelled, in order to earn a livelihood, to follow the logs to the States, where he will be told that unless he throws in his lot with them and becomes an American citizen he cannot be permitted even there to employ his labor in further work upon this timber, which, but for our futility, he would have had in abundance at home; for now that the Americans must have our pine timber they would take it as freely in the shape of lumber manufactured in Canada as they are now taking it from us in the shape of logs to be manufactured in the United States.

One would think the mere statement of the case would at once cause the Government to enquire into the conditions and re-impose such export duty on the saw logs as would place the Canadian manufacturer in the districts named in at least as good a position as the American operating his mill with Canadian timber, but I regret to have to say that unless the public demand a change we can only expect this "laissez faire" system to remain till it will be too late to stem the tide, for the American lumbermen have such an enormous advantage under existing conditions that they will continue to employ through the agency of their emissaries in the press and Parliament every means in their power to hoodwink the public in the future as they have so successfully done in the past.

It is not only the lake marine that may suffer from this inaction, but the railways and sea-going shipping as well, for a large portion of this trade which is now being diverted from its natural route by rail or vessel to Montreal and Quebec for shipment abroad—an amount estimated at from 8,000,000 to 10,000,000 tons—will, within five years time, have been towed over to Michigan and elsewhere in the United States to swell the trade of American vessels and transportation lines and to lessen by so much that of our own vessels and shipping.

But it may be said, if we re-impose the duty on saw logs, the American import duty on pine lumber, now \$1 per M, becomes at once \$2 (all other lumber duties remaining the same as before). Well, what of it? If the Americans prefer paying \$2 per M duty instead of \$1 on pine lumber it is a matter that concerns themselves, for the price here would not be affected. This was clearly shown when the duty was reduced from \$2 to \$1. Bradstreet's immediately reported a reduction of \$1 per M on Canadian pine lumber in the American market. The reason that pine lumber is not now several dollars per thousand feet higher in price in Canada is that Americans, by getting the logs free of duty, are able to undersell our manufacturers, but with an export duty of \$3 per M on pine saw logs, as it should be, they would be compelled to advance their prices this much or leave the trade as it should be supplied by our lumber now that that they have about used up their own timber from which to make it. The demand is now equal to the supply, and if the Americans cannot furnish it, we can and will. But, however this may be, it is full time we began to consult our own interests, the Americans will, no doubt, look after theirs, and will, at any time, be only too glad to accept free lumber in exchange for free logs. I do not, of course, admit that this would be anything like fair compensation to us, but it would, at least, be something and, at any rate, better than the idiotic condition now existing.

The Premier has, I am pleased to see, distinctly announced the Government's policy to be that of "building up home industries and making Canada a great

nation;" the timber industry is the most purely natural home industry existing in Canada, and he has now an opportunity of showing he is in earnest, for if he permits its further sacrifice he is trifling with the intelligence of the Canadian people by talking in this manner, for existing conditions are building up the industries of the United States to the destruction of those of Canada—at least this is my opinion.

WORN OUT MACHINERY.

ONLY a practical lumberman, says the Saw Mill Gazette, can appreciate the immense advantages which arise from the use of good machinery. To the merely technical manufacturer, whose capital accrues large interest through the aid of his employees, it may seem at times unreasonable that machinery, which in his estimation should last forever, rightfully belongs to the scrap pile. A little common sense, and just a bit of mathematical computation, however, will rarely fail to abolish any such illusion.

Let us consider, for instance, one of the innumerable cases of "break-down" in our saw mills. Figure up the minutes—or rather hours, for such they are—during a delay in which an old shaft is being repaired and hurriedly patched up, but only to break again. Those hours, we say, during which a force of probably fifty workmen stand around idle. Figure in black and white how many dollars and cents this delay costs. On the other hand, inquire of your foreman how many thousand feet of lumber could have been sawed during this brief delay, and figures will prove what heretofore observation failed to notice. If we take into consideration that not only old and worn out shafts, but saws, planers, tools, boilers, furnaces, engines, gangways, etc., break down ever and anon, we find that the delay caused by worn out machinery figures well-up into the thousands of dollars every year; in many cases an amount ample to purchase an entire new outfit. Machinery, the mechanical servant of man demands as careful attention as can possibly be given, and the time surely comes in its life when age, rust and the effects of everlasting repairs render it unfit for further service. A business man who does not discard machinery when it no more deserves the name, stands in his own light; and figures invariably prove that such culpable carelessness never fails to beget trouble, unnecessary expense and general loss.

THE HOLLOW BLAST GRATE.

WHAT to do with the refuse of the saw mill is one of the conundrums of lumbering that is not easily unravelled. Especially is the sawdust nuisance a constant source of worry. The Canadian Hollow Blast Grate Co., of Essex, Ont., have undertaken to solve the difficulty by the use of the Gordon patents, which, apparently, give satisfaction wherever used. The principle of these grates could not well be simpler. It is in fact just the application of the principle of the blacksmith's forge to the furnace fire, supplying a blast of hot air, sufficient at all times to insure the rapid and perfect combustion of fuel of every sort. The blast grates are 8 inches wide and are cast hollow with the upper surface flat. On the upper side are placed valves through which the air from the fan or blower is equally distributed through the fuel and over all the surface of the furnace. The blast grates are placed alternately with the other sawdust grates. No matter how wet or poor the fuel may be it can be burned. Wet sawdust, spent tan bark, fine coal dust and any kind of refuse can be utilized for making steam with as much success as the very best of fuel. Perhaps no system outside of the Gordon patents has so satisfactorily solved the problem of steaming with the fine, compact dust of the band mill. A greatly increased volume of steam is also generated in the boilers. The Canadian Hollow Blast Grate Company present, in an advertisement elsewhere in the LUMBERMAN, a number of testimonials, from various manufacturers who are using the hollow grates, which are certainly complimentary to these grates. To the saw mill man not an unimportant item is the saving that can be made through holding slabs for sale in place of consuming them in the furnace; the sawdust and refuse furnish, in most cases where the blast grate is used, what fuel is required.

VIEWS AND INTERVIEWS.

Business
Bluntness.

Business men are credited, often, with bluntness of speech. Rather let us call it business directness, which aims to get at the facts and true inwardness of the legal profession. The following are three questions from a commercial cotemporary that certainly 'get there' rapidly: "Are you going to run your factory this winter, or have you decided to shut down during the severe months? If you are going to run, is your factory a fit place to work when the thermometer shows zero outside? Do you think your employees can do you and themselves justice working frozen lumber, on frozen machines, with frozen fingers?"

Evidence
From Trees.

Timber merchants who are philologists, or who have not forgotten their studies of "Morris's English Grammar" and "Grimm's Law," will be interested to learn on the authority of one who is supposed to have given the subject the necessary study, that the only names for trees common to all the Aryan languages are those for birch and willow, and it has been argued that since the birch is only found in Europe the primitive Aryans must have come from Europe, not Asia. It turns out, however, that the white birch flourishes throughout Siberia, from the highlands of Afghanistan to Japan, and that allied varieties are also found in the mountains of Central Asia and the Himalayas. In Iran and Turkestan, which some have supposed the cradle of the Aryans, these trees are not found. The argument for a European cradle of the Aryans, which is founded on the birch, is therefore a weak one.

Wooden Houses
For England.

An interesting experiment is shortly to be made by an English landlord. A British Columbia architect has received orders to prepare plans for lightly constructed houses, such as are built in this country, and a shipment of sufficient material for half a dozen frame houses is about to be sent to England to be erected for the workmen on a large estate. The houses are to be shingled with red cedar shingles in place of thatch. A local paper takes a roseate view of the scheme in the realization of which, we are sure, it has many well-wishers among Canadian lumbermen. This journal says: "There is no reason why England should not build wooden houses. The climate of the Pacific Northwest is like that of England, and here wooden houses are preferred to brick and stone. Lumber is cheaper than stone or brick, even if freights and insurance are high, and when this idea takes root among the middle classes of Great Britain, we may look for an immense trade from John Bull. At present the imports of timber and lumber into Great Britain amounts to over \$75,000,000 per year, of which less than \$200,000 worth comes from the Pacific coast. Should the wooden house idea take there will be enough work for all the cargo mills on the coast to supply the demand."

A Clearing House
For Lumbermen.

One will usually think of a clearing house as an adjunct of the banking system of the day. We do not hear of it as identified with ordinary business undertakings, and yet we are told that in Wisconsin there is a clearing house as a feature of the lumber industry of that State. On the Wisconsin river there is an agreement between loggers, mill men and others, which, though unwritten, is most scrupulously adhered to. In spite of the care exercised by the boom companies, the logs of the different corporations naturally become mixed in the drive down the river. In pulling the logs from the pond, on the haul-up to the saw, if the mark on the end is ascertained to be other than that of the company owning the mill, the usual course pursued is to note the entry on the sawyer's book of the firm to whom it belongs, and the number of feet it contains. At the end of the season each firm notifies its neighbors that it has cut a certain amount of their logs. The neighboring firm follows the same course with other firms, a balance is struck, and whichever firm cuts the most remits a check in payment of the difference. Sometimes it happens that a firm, in finding another's logs among his own, is indisposed to saw them and keep track of them, in which

case they are put to one side. At the close of the season these firms notify the various owners that they have in their ponds a certain number of their logs, subject to the owner's orders. One will say these be honest lumbermen. The theory is that some there be who are more honest than others. The clearing house plan seems workable, and ought to be suggestive, at least with lumbermen who desire to follow the golden rule; and, tradition to the contrary, we believe this is the case with most lumbermen.

ESTIMATING STANDING TIMBER.

BY H. B. WETZELL, IN "HARDWOOD."

THERE are several important things to be considered by those having in view the purchasing of timber, and its early conversion into lumber. Chief of these are—quantity, quality, and first cost, of timber; cost to log, or to get the logs to mill; and cost of transportation of lumber from mill to such markets that will readily absorb the output of the mill. The cost to convert the logs into lumber when at the mill, and to place the lumber on cars or vessel, can be ascertained more readily and approximately near to working results, than either of the first-named conditions.

If, in addition to the knowledge of the probable aggregate amount of the merchantable timber on the tract which is intended to be purchased—and by merchantable timber we may interpret that term to mean such timber as can be utilized profitably—there can be shown the probable percentage of certain grades of lumber that the timber will yield, one will then have the foundation or basis upon which an experienced lumberman or intelligent business man can reach a conclusion as to whether the purchase of such tract would be a profitable venture or otherwise. Many sanguine men often overlook the importance of investigating these primary essentials, and suffer loss in consequence.

No less interested should be the logging jobber as to the amount of timber on a given area of land, for usually he can log somewhat in the ratio of cost, proportionate to the amount of timber.

Frequently the cost of logging is not so carefully considered by those who buy tracts or timber lands at low costs, and remote from transportation facilities, if they buy as an investment rather than for immediate lumbering operations, for past experience has shown that they will not have to wait many years until the advance of the lumbermen will soon reach them and the logging problem be solved.

The very first thing that a capitalist or lumberman wants to know before he invests in timber is the amount on a given tract or area of land, and it is of this that I purpose to treat more especially at this time.

There are men who, by knowledge gained through years of experience, or on account of their natural ability or adaptability to this kind of work, become very proficient and reliable as estimators of standing timber. Under the names of land lookers, timber explorers, timber experts and other suggestive titles they form a peculiar and distinct class in their occupation in all well timbered and lumbering regions.

Many of them have spent most of their lives in the woods and occupied in lumbering operations, and are as much at home in the primeval forest as a wild Indian. They are lovers of nature and in full sympathy with their work.

They are keen of vision, with perceptive faculties, together with form, quantity and distance well developed, and these become quickened, intensified and wonderfully accurate by constant use. Thus by a single glance they are enabled to arrive at conclusions that with others would require much time to reach by mathematical methods. Generally they are plain men of good common sense, reliable and honest to the core—noble men in the true sense. Their life work amidst the solitude and sublimity of nature, far away from the busy haunts and wiles of men, tend toward honest motive and effort. Their chief schooling has been in the direction of the study of timber, and many of them become remarkably proficient in this branch of education.

One of the best judges of timber that I ever knew could not read or write, yet he had the most wonderful memory of things that he had seen and events that occurred which came under his notice of any person I

have ever seen. And I would rather accept his judgment as to the amount of standing timber and its quality on a tract that he had examined, and the cost to log it, than the man having the longest list of degrees of titles of distinction issued from the scientific institutions of the world. While many of these men are uneducated in the popular sense, yet there are capitalists who invest millions of money in timber upon the report and judgment of these men, and without verification from any source, knowing full well their ability and honesty.

It is somewhat singular that these woodsmen each have their own methods or manner of work and of reaching conclusions and determining results. Few of them follow prescribed or narrow rules, yet quickly adapt new methods or ways to meet new contingencies or unusual conditions which arise in their work.

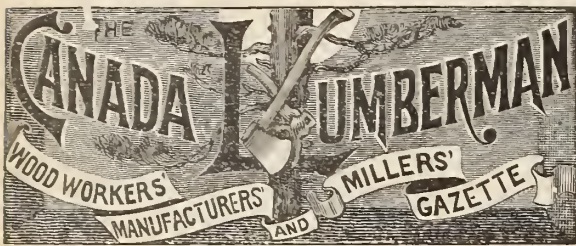
If asked to explain in detail how they arrive at certain conclusions as to the amount of timber on a certain tract or area of land, many would be unable to tell. With many their knowledge in this direction seems to be almost of an intuitive character. But there are others, men of scientific and educational attainments, who, by the use of instruments and mechanical devices and mathematical calculations, measure certain areas on a given tract of land—say an acre here, and an acre there, and again elsewhere—of the best, the medium and the poorest timber, so as to ascertain the average, then carefully measure the diameter or girth of each tree above a certain size within such measured spaces, by means of tape line, calipers or other mechanical device, then ascertain as near as possible the height of the tree, by quadrant or other device, which can be converted into sawlogs, after which they carefully compute the cubical contents of the tree, or how much lumber it will cut board measure.

While this may be a scientific method of reaching results, it is too slow in this fast age to be practical where a large tract of timber is to be estimated. It may do very well where a few trees or limited acreage are to be gone over, but it is slow and expensive in comparison with the experienced woodsmen's methods, for they can tell at a glance the approximate amount of lumber that a tree will yield, or almost as equally quick will tell how much timber an acre will cut.

A man may possess the highest natural and educational mathematical attainments, and yet fail to be a reliable estimator of standing timber, unless he has had some experience in lumbering, or is a judge of the defects or faulty character of trees. For due allowance must be made in the calculations for defective timber where it exists, and it is seldom that one examines any considerable tract without finding defective or faulty timber. It is only the trained eye of the experienced woodsman that is capable of detecting the various defects in trees.

So faulty and defective are certain kinds of timber growing under peculiar conditions, that often the timber examiner finds the most difficult part of his work to determine the amount of proportion of the unsound timber on the tract under examination.

A novice may be able to ascertain approximately by scientific methods the cubical contents of a sound, well formed tree, yet he may be greatly in error in determining by his methods as to how much an acre or a thousand acres will yield of merchantable lumber if the timber be crooked, hollow, rotten, or otherwise faulty, or where it is of irregular growth. A man may handle lumber for years in a city lumber yard, or even about a saw mill, and be an expert as to grades of lumber, and yet be entirely incompetent to judge of the quality or character of timber in the woods. It is the trained eye of the experienced woodsman or lumberman who has spent much of his time in the woods and studied the characteristics of timber, and cut, logged, or otherwise worked in lumbering operations in the woods, that is in a measure enabled to determine readily the proportion of sound to that of unsound timber before it is cut. He it is who detects by the peculiar shape of the trunk of the tree, the swollen or churn butt, the bulges or protuberances in places further up the trunk, the peculiarly unhealthy color of the bark, the fungus growths, dead or unhealthy top, or other signs which indicate that the tree is either hollow, shaky, rotten, or in the earlier stages of decay, or faulty in some other respects.



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—BY—

ARTHUR G. MORTIMER

OFFICE.

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J. S. ROBERTSON, - - - EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

STATISTICAL NUMBER.

FOLLOWING our usual custom—a custom appreciated, we believe, by our readers—this issue of the CANADA LUMBERMAN is what we term the annual statistical number, containing a review of the lumber trade of the Dominion for the year 1892. All possible care has been exercised to make this review as complete and accurate as possible, and the plan has been adopted of giving the record of each province separately, as well as a summary of the whole. We have to thank many readers for their ready response to our letters asking for lumber statistics of the year from their districts. The review will be found on pages 10 and 11, and calls for no further comment here. Current markets with prices revised to time of going to press will be found on page 14.

HOW TO "GET THERE."

"IT might have been" is a refrain that has come home with telling force to others besides Maud Muller. Shrewd business men, as well as this captivating young lady, have learned that "It might have been" is all they possess, sometimes, of what they had hoped would have proven a profitable and pleasing actuality. Illustrations will come to every reader. How many neighbors and friends are living on the dry crusts of the might-have-been, having lacked the prescience to unload in stocks, or lands, or other possessions just at the opportune time. Others are wealthy simply because they seem to have known when to buy and when to sell, the time to hang on, and the time to let go. These experiences have come to not a few engaged in lumbering operations in this country and elsewhere. Men, who are, practically, poor to-day, might have been millionaires, had they foreseen that the timber limits, which not many years since in Canada were obtainable at a comparatively nominal price, would in a few short years increase largely in price, as has been shown by recent timber sales in this province. Farmers, in many cases, would have little cause to worry over the low price of wheat the

past year, had they realized that the various hardwoods so prodigally cut and disposed of in the days of the clearing, would in some instances be hardly obtainable now at any price. Mr. Phipps, government forestry clerk, points out in his last annual report, writing of conditions in Kent county, that oak that sold fifteen or twenty years ago at \$4.50 per thousand feet could now be marketed at \$25 per thousand, and walnut which then only brought \$14 per thousand feet would to-day command \$100.

The following instance, related by an American lumber journal, has its counterparts, many times over, in both the States and Canada. This journal says: "A great deal depends on getting in at the right time. A man in this regard can exercise keener judgment than in almost any other direction. Look back at the white pine men. Many of the now millionaires were for years pine land poor. They loaded up with pine and the price stuck right there as if glued. All at once, away it went, rocket like, and there were men who bought, sold and made fortunes all within twelve months, which must have made those who had paid taxes for twenty years or more, think that they were not sharper than a razor. The other day a man said, pointing to a corner in the business centre of the city, that he held that lot for fifteen years, got tired out and let 'er slide. Two years ago it was purchased and has since been sold at a profit that would permit the seller to retire if disposed to do so. 'Damn the luck,' said the old owner as he walked into a bank to get a note discounted."

A Michigan correspondent, of the Northwestern Lumberman, gives currency to the following story, which is apropos to the present line of thought: "I recently talked over old times with an eastern man who is now out of the business, and he was telling of the days not so long ago when it was easy to make money out of pine land, if one only had the sand to make the purchases. One little lot that he instanced was offered for sale in 1882 for \$1,100, and the one to whom it was offered did not think enough of it to touch it alone, but induced another person to take half with him at that figure, and in 1889 that same piece sold for \$23,500 cash, and was considered cheap at that figure. There is a tract of timber on the Flint & Pere Marquette road, and for which \$10 stumpage would not be any inducement to them to sell, and yet ten years ago it was in the market at \$1.50, and went begging at that, as no one had faith enough in the future of white pine to invest at that figure even. One of the shrewdest and wealthiest lumbermen in this region told me not long ago, that he owed his wealth to his inability to sell his plant some years ago, when pine was depressed and no one would touch it. He tried his best to give it away almost, and while working at this, things took a turn and pine land suddenly became of some value."

We sometimes talk about the success that follows the man who is lucky enough to get in on the ground floor in lumber or other transactions. But experience shows that the faith and grit necessary to keep a man resident of the ground floor, when things around that part of the house are wanting in even the coldest hospitality, are often more required to secure ultimate success, than getting possession in the first place. The law of voluntary, if not compulsory, eviction, applies not unfrequently to the man on the ground floor.

How rare indeed is the gift of foresight.

TIMBER CHANGING HANDS.

SEVERAL important changes in the ownership of Canadian timber limits have taken place since the last issue of the LUMBERMAN. The Cochrane timber limits on the Coulonge and Black rivers were put up for sale by auction in Ottawa on 12th Jan., at the instance of the Merchants Bank. Many lumbermen were in attendance but only one parcel reached the upset price. This was one hundred square miles on the Coulonge river, which was bought by Wm. Mason & Sons, of Ottawa, for \$22,000. The limits of L. N. Timmins, of Mattawa, on the Wahnapiatè river, sold at Suckling's auction rooms, Toronto, on 10th ult., were bought by Holland, Emery & Co., of Saginaw, Mich. \$40,000 was paid for the first berth of 36 square miles, and \$10,000 for the other, the pine on the second being of an inferior quality. S. O.

Fisher, of West Bay city, and Joseph Turner, of Bay City, Mich., have purchased 175,000,000 feet of standing pine in the Parry Sound district from Merrill, Ring & Co., of Saginaw, for \$350,000. Turner also purchased 200,000,000 feet on the Wahnapiatè from James T. Hurst, Wyandotte, for \$500,000. Fisher owns a similar amount of the latter tract. It is also stated that Mr. Hurst has purchased the standing timber and logs being put in by Sibley & Bearer in the Georgian Bay District, there being about 50,000,000 feet of logs and timber. This lets Sibley & Bearer out of Canada. It is very clear from the particulars here given that United States lumbermen do not lose interest in Canadian forest products, giving a strong coloring to the remark of Congressman Bryan, quoted by Mr. Little in these columns two months ago, that American lumbermen own the timber in Canada anyway.

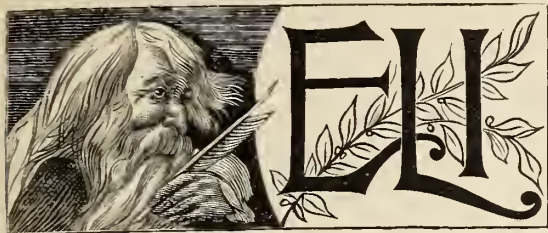
EDITORIAL NOTES.

WITH the heavy snows this winter there will be no lack of water for the spring drives. This is good news for lumbermen; but the prospect is not without its shading. There may be too much water and if the break up a few months hence should be somewhat sudden it will make things lively on the drives and the men of hetchels, peaveys and pike poles, will have their best skill put to test.

AN illustration of what has, more than once, been stated in these columns, viz., that lumbering operations in Ontario are rapidly seeking the interior, as the only place where timber wealth in any degree of richness is to be found, is brought out in a recent remark of Mr. C. Henderson, government bush ranger in the Wahnapiatè region, that there are now 5,000 men lumbering between North Bay and the Soo.

FOR some time Michigan lumbermen have been experiencing the unprofitableness of long credits, and the abuse of credit that is a common practice with some dealers. Our Michigan correspondent points out in his letter this month that the custom has been to sell lumber on sixty and ninety days and then renewals were not unknown. Even with this liberality some men are not satisfied and we are told that a trick of the trade has been to wait for thirty or forty days after a car load has been shipped and then send on a note at ninety days from that date in settlement, thus running the credit, in the first place, into nearly five months. To remedy this and like abuses, Michigan lumbermen are now organizing themselves into an association and intend to reduce the terms of credit. What about long-winded credit among the lumbermen of this Province? The evil exists here to just about the same extent as in Michigan, but our lumbermen have not reached the point of their Michigan brethren and made preparations to put a stop to this unbusiness-like business. Now at the commencement of the new year the time is opportune to take the necessary steps in this direction. Who will lead?

ONE of the difficulties of the growing scarcity of many hardwoods is instanced in a statement from the Buffalo Express to the effect that hardwood lumber dealers and coopers find themselves unable to obtain bass wood enough to complete work in hand. "Ten years ago," says the Express, "Buffalo was visited every day in summer by small Canadian vessels loaded with 'cooper stuff.' They come no more, for the Canadian shore on Lake Erie, which used to furnish these cargoes, is denuded. There is already complaint that whitewood, the poplar of the lumberman and the tulip of the botanist, is all gone though but a few years ago it was very common timber. Cherry is disappearing, and other and less valuable wood is put in its place. Every year marks a future decline of the business of such lumber producing centres as Saginaw. Now the great pine centres are Georgian Bay, Menominee and farther Lake Superior. Half a dozen years ago the Saginaw district alone supplied the lake trade as completely as all these together do now. Since the denudation of the lake districts, lumbermen plunge still further into Canada and look to the far south for timber. Canada produces the favorite white timber, but Southern timber is of varieties not yet in general use in the North. That it will be before long is certain."



MR. Thos. J. Vipond, in an encouraging account of the trips of the Str. America between Montreal and Jamaica last year, takes a hopeful view of the trade prospects between the two countries. In his opinion the trade in some important lines needs only to be cultivated to secure a considerable portion for Canada. "A large amount of white pine," he says, "is imported, but while nearly all is imported through New York, it is generally Canadian product. It is prepared especially for this market, being cut 12 inches wide."

* * * *

A correspondent from Chilliwack, B. C., writes: "I have seen the statement made that the fir timber of the Pacific Coast is lacking in strength for some uses. From tests made at Tacoma by the Northern Pacific R. R. and also at the Sacramento car shops of the Central Pacific R. R., fir timber has been pronounced stronger and safer than the best eastern oak for car sills."

* * * *

Mr. George Sampson, of Ottawa, who has recently returned from the Lake Superior and Georgian Bay sections, says: "The American firms operating in that district are rushing out the logs in great shape and the cut up there for the Michigan saws will be something immense. Great care is being used for the preservation of the timber, the old style of "slashing" down a tree, and then leaving it lying there because some parts of it should prove defective, being totally abandoned."

* * * *

"For the past ten days, I have been in New York," said Mr. C. H. Clark, of Burton Bros., Barrie, Ont., whom I met a few days ago. "Prospects of lumber trade in the States this year are very bright. Canadians will come in for a share of this trade and prices will be good. Yes, everything is booming in the woods and a large cut will be the result. It is just a question, welcome as the snow is to the lumbermen, whether we have not had too much this winter. If any great amount of labour in the way of making cuttings becomes necessary, because of the depth of the snow, it soon adds materially to the cost of getting out the logs."

* * * *

A prominent Ottawa lumberman says: "Everything is going along in splendid style in the woods. This has been an exceptionally good year for lumbering operations. In the first place we had one of the best falls I have ever seen for making logs and timber and when everything was just in readiness for drawing them to the streams a sufficient quantity of snow comes down to make the drawing perfect. I tell you everything is booming in the woods as far as the Upper Ottawa country is concerned and if the hard weather lasts nearly all the drawing will be done by the first of March. In my opinion there will be about as much taken out of the woods this year as there was last season."

* * * *

Distance is not looked upon as a serious barrier to trade in the present day. Ontario sends her manufactures and commercial commodities to the far-distant province on the Pacific coast, British Columbia; and the Coast province is working hard, and with some degree of success, to get her products into the east. The LUMBERMAN has referred several times to shipments of British Columbia cedar and other large timbers that have reached central points like Toronto, Montreal and London. During the month I had a conversation with Mr. W. L. Johnson, shingle manufacturer, of New Westminster, B. C., who had come to Toronto, and intended visiting other points in the east, with a view of getting coast shingles on the market here. He was not finding it altogether easy work, freight rates being high, and consequently adding to the cost of the shingles in competition with the Ontario

shingle. But Mr. Johnson believes that the superior quality of the cedar shingle will ultimately make its use a certainty everywhere.

* * * *

Mr. Geo. R. Nicholson, lumberman, of Alpena, Mich., who spent a few days in the city during the month, said: "The timber woods of Michigan were closed against new buyers. Operators and mill owners have the whole thing bought up and they are manufacturing it. They are sure of making a certain amount and will not sell under that figure. It is true you can buy, but not at any great profit, if at any at all. In the Canadian provinces lumbermen are not hampered by any such condition of things. That is what caused such keen competition and good prices at the sale of timber limits in Toronto a short time ago. No, there is no possibility of a timber famine as long as the Canadian supply holds out, and it is practically without limit."

* * * *

A frequent visitor to Canadian lumber fields is Mr. J. E. Lynn, of Detroit, Mich. He is a man of titanic proportions and is as fine a specimen of muscular humanity as one might wish to see. He is famous all over the Michigan peninsula for his deeds of daring and feats of strength, some of which would discount Cyr's performances. Accompanied with a number of lumbermen from the Saginaw Valley, he has been on a prospecting tour this month in the northern woods. "We are after pine chiefly, but will cut and buy anything for the matter of that," said Mr. Lynn. "I have been in the lumber business all my life. I began as an axe man and have gone through all the degrees till I'm a past master in the business. Lumbering ain't what it used to be and never will be again. Trees are getting scarce in Michigan, and when I sometimes think of the waste and extravagance I have seen it makes me shudder."

* * * *

The CANADA LUMBERMAN was pleased to receive a call a week ago from Mr. William Little, of Montreal. Few men possess a more intimate knowledge of the lumber situation, both at home and in other countries, than Mr. Little. Forty years ago he was engaged in lumbering with his father on the shores of Lake Erie. In 1883 he visited England and met with many prominent lumbermen, including the editor of the Timber Trades Journal, and took advantage of the opportunity to study European conditions. At one time he conducted a lumbering business in Buffalo. The senior Little was a firm advocate of reciprocal trade relations at the period the former treaty between Canada and the United States was in existence. In the judgment of Mr. Little, however, the tendency of the treaty, so far as lumber was concerned, was simply to promote over-production, and reduce prices of Canadian lumber. As a frequent contributor to the CANADA LUMBERMAN Mr. Little is well-known to the readers of these pages. He is an enthusiastic student of forestry and an unwavering advocate of protection to Canadian timber interests. On another page we publish an article from Mr. Little's pen concerning the effect of free logs on the shipping interests of Canada.

* * * *

A few days ago I had the opportunity to meet and exchange opinions with Mr. R. B. Currier, wholesale lumber merchant, of Springfield, Mass. Mr. Currier is also vice-president of the Delta Lumber Company, of Detroit, Mich., who have mills at Thompson, on the Saginaw river. Mr. Currier, like many United States lumbermen, finds there is business to be done on his side of the lines with Canadian lumber, and an occasional visit to Canada is not without profit. "It is a case," he said "of finding fresh fields for supplies, somewhere, for Michigan lumber is rapidly growing scarce." Trade he reported as active on the other side of the lines, the year just closed being a prosperous one for the lumber trade. Prices were advancing, and he thought would continue to increase. In reply to the enquiry, whether free lumber would be an outcome of the change of administration in the government of the country, he said that the trend of opinion was undoubtedly in favour of freer trade relations with other countries and a lowering of the tariff, so far as the States were concerned. Nothing would be done, however,

before December, when Congress would meet. He did not think that the one dollar duty on pine materially affected the price in the States, but it was desirable to see the duty on spruce lowered or abolished.

* * * *

Parliament will make a move this session to reimpose the duty on logs. Dr. Sproule, member for Grey, has secured the following motion on the order paper: "That it is expedient to reimpose the duty on pine and spruce logs." Being interviewed on the matter Dr. Sproule said: "This matter of an export duty is a much vexed one, but I am convinced that it is a serious one for Canada. There will be 40,000,000 cut in the Georgian Bay district this year by American firms and the result of that will be far reaching. The Americans use their own axes, their own machinery, and as far as possible their own labour. What few Canadians get work with them would be met by the Alien Labour Law at the boundary if they attempted to follow the logs to Michigan to get a summer's work. Many of the American firms bring even their own provisions across, though of course a portion of these are subject to duty. In estimating the cost of cutting the stuff I have it from one of the best authorities that it costs approximately \$4.50 per thousand feet to get it out in the first place, and 50 cents to get it down the streams. Of that \$5 of course Canada gets her share. After it is taken to the mills the cost of cutting is \$2.50 per thousand, incidental expenses run up to 25 cents, and another 50 cents to take it from the mills. The feeding of men, cost of machinery and other matters of a similar description may be safely assessed at another \$3, so that we have \$6.25 for each thousand feet taken to Michigan, not a cent of which is spent in Canada. With 450,000,000 feet going out this year it is not hard to figure up the loss."

* * * *

Mr. J. T. Schell, of MacPherson & Schell, Alexandria, Ont., and Schell, MacPherson & Co., Sayabec, Que., well-known eastern lumbermen, in forwarding to the CANADA LUMBERMAN statistics of their business of the past year, writes: "I favor free trade with the States because they want our lumber. For the reason that our shipments of lumber to the United States are, at present, at least, but a trifling percentage of the total requirements of the United States trade, the Canadian production cannot be a controlling element in their markets and as a natural result our prices here do not rule, but are ruled by the United States markets. Under these circumstances the United States want our lumber, but at United States prices, and consequently our prices are the amount of the duty less than United States prices, or we pay the duty. On the other hand I believe the fact is generally admitted that the lowering of the duty on pine to \$1 did not unfavorably affect United States prices, as some thought would be the case, but on the contrary in many instances was a benefit to United States manufacturers in allowing them a supply of rough stock at cheaper rates while giving a market to Canadian mills promptly, instead of holding greater quantities here on yard, with slow sale. I consider the benefit, therefore, largely in our favor from the fact, as I have about said, that our present or probable shipments, are, and would be, but a small percentage of their consumption and not a disturbing element in their markets, and as a consequence we would most largely benefit by any removal of duties off lumber, or anything else that naturally finds the United States market its resting place under a duty. Canadians are and have been annually paying into the United States treasury over a million of dollars in the shape of duty on its forest products alone, that under free trade would go into the business enterprises of Canadians. I am no annexationist in sentiment or expression, and would be opposed to it as strongly as I desire the privilege of being allowed to pay our grand and monumental "national debt of Canada" by Canadians and feel that without the aid of "convincing rhetoric," or "flowery oratory," that any lumberman interested in his ledger or day book would agree that by freeing Canadian forest products from duty going into the States for its natural market would be a great help towards enabling Canadians to pay our own debt instead of contributing to the payment of the United States debt as well."

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE Parliament of Canada has once more been called together for the transaction of business, and the echo of the annual fusilade of opening still lingers around Parliament hill, as I pen these lines. What this session may mean to trade and commerce, the developments of the next month will likely foreshadow. The Premier has, in your own city, outlined the policy of the party in some respects, which is to be a loyal adherence to the N. P., with such modifications of the tariff as time and experience may have made necessary. This is a door that may be thrown widely open, or on the other hand that can be kept about as tightly closed as the most ardent protectionist would wish. A spirit of unrest, deep and strong, however, exists throughout the country, asking for some change. That this is not confined only to those who are opposed to the present government is shown by recent utterances of Dalton McCarthy, Mr. Cockburn and other members of the Conservative party. All of which makes very certain change to some extent along tariff lines. Will any change be made in the tariff as affecting lumber? This most interests LUMBERMAN readers. Mr. Ives is now a member of the Cabinet, and Mr. Ives has put himself on record as asking for the re-imposition of the duty on logs. It is known that the Cabinet are not as enthusiastic on this question as Mr. Ives. Will the responsibilities of office serve to hold the President of the Council down? Rumor says that the lumbermen of the Georgian Bay and other parts will be heard from, with no disposition to have "nay" said, in favor of re-imposition. On the other hand the influence against any change is strong and powerful; and hitherto this influence has prevailed. Thus the situation stands as our parliamentarians take their seats to commence the session's work.

INDIFFERENT LENGTHS.

Bronson & Weston are making extensive repairs to their lath mill.

Mr. J. R. Booth expects to have trains running between Ottawa and Arnprior by 13th Feb.

Mr. Orr, of Buell, Orr & Hurdman, has disposed of his interest in the company, which will be known in the future as Buell, Hurdman & Co. The firm had a good season's trade.

At a meeting of the directors of the David Moore Lumber Co., (Ltd.), capital \$300,000, the following executive officers were appointed: Edward Moore, president and managing director; C. H. Carriere, vice-president and P. Larmouth, sec.-treasurer.

The pending sale of timber limits of the James McLaren estate on the Gatineau has fallen through. An extension of time on the bond was asked by the purchasers, but refused. The limits are now held at an advance of thirty per cent. on former offer by the estate.

The new Thackray mill, on Spark St., is now fully completed and presents a handsome appearance. The amount spent on it and the seven new houses built by the firm this season reaches nearly \$30,000. The firm are busy getting out a lot of stuff for Gilmour & Hughson's new mill at Hull Point.

The shipments of lumber from the district of Ottawa to the United States in bond for export, and for consumption, through the United States consular agencies at Ottawa and Carleton Place for the past nine months were valued at \$1,938,692.74. The shipments from Ottawa since October 1 were valued at \$470,000.

Mr. P. Whelan, manager for Messrs. Shepard & Morse, has returned home after a visit to the firm's shanties on the Kippewa. He says that about six weeks ago a man died very suddenly in one of the shanties from natural causes, supposed to be heart disease. Later another of the men became suddenly deranged, wandered away from the shanty, and although the most diligent search was made for him no trace could be found. It is feared that the poor fellow lay down somewhere in the woods and perished.

A family quarrel in lumber circles has caused some excitement at the capital this month. Mr. W. H. Hurdman, of the late firm of R. Hurdman & Co., has preferred several charges of larceny and embezzlement against his nephew, W. G. Hurdman, who had been chief book keeper in the firm. It is charged that the defendant had, at sundry times, made sales of lumber to various parties, granted receipts for the proceeds, and appropriated the money to his own use. The accused has been committed to stand his trial at the Assizes which will be held at Aylmer in June next. Bail was granted.

The mill of Gilmour & Hughson will contain 1 Wicks gang saw, 2 band mills, twin circulars, 2 double edgers, 2 double trimmers, lath mills and all other adjuncts. They are to be driven by two 30-38 Wheelock engines, being built by Goldie & McCullough at Galt, and the boiler will be an 8 boiler, 6 feet long by 5½ in diameter. All the log canting will be done by steam, and the log deck, the feeding apparatus, and all the

band mills etc., will be worked by steam. The machine shops, blacksmith's shop, and electric light shops are now running. The work of construction is to be carried on by Mr. Charles Proper, the well known mill-wright who built Messrs. Buell, Orr, Hurdman & Co's new mill on the site adjoining the Table Rock.

An important judgment has been rendered by Justice Burbridge in the exchequer court. H. Bulmer & Co., Montreal, sued the Dominion government in the exchequer court for \$200,000. Bulmer & Co. leased certain timber limits and berths from the government in the district once known as the disputed territory. They built mills and began lumbering operations in connection with these limits. The courts ultimately decided that the territory belonged to the province of Ontario and not to the Dominion, and consequently Bulmer & Co's. rights to these limits ceased. Obtaining a petition of right from the crown they took action in the exchequer court for \$200,000. This was for prospective profits, etc. If the court would not concede this they asked for compensation at all events for the mills they built and other expenses incurred. Neither of these claims have been granted by the court. Judge Burbridge, however, decided that they had a right to obtain the amount of money they had paid over to the crown in the way of ground rents. This amounts to \$5,070, for which sum judgment was given.

OTTAWA, Can., Jan. 26, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

RECENT shipping intelligence as given below furnishes a fairly clear idea of lumber activity in the province. Local trade is not over brisk, but the outlook for the year is good, especially if the anticipated increase of immigration into Manitoba and the Northwest Territories materializes. Our shingle manufacturers are making energetic efforts to place their cedar shingles in eastern Canada. Freight rates are against them, but they believe that the character of the cedar shingle is so much superior to any other shingle manufactured that even at an increased price they will lead the shingle market anywhere. Shipping news is as follows: The British ship County of Yarmouth, 2,154 tons, Capt. Swanson, has been chartered by the B. C. Mills Timber and Trading Co., Ltd., to load lumber at the Hastings mill for Cork, U.K., at 50s. The British ship Abeona, 979 tons, Capt. Black, sailed from Vancouver to Port Pirie with a cargo for the Hastings mill consisting of 775,140 feet of rough lumber. The cargo was valued at \$6,976.30, and the charter rate was 37s. 6d. The Norwegian bark Fritzoe, 1,078 tons, sailed from Vancouver for Callao with a cargo of lumber from the Hastings mill. She had on board 859,532 feet of rough lumber, and 19,728 feet of flooring, making a total of 879,260 feet. The value is \$8,031.70. The British bark Mark Curry, 1,256 tons, Capt. Liswell, sailed from Vancouver to Queenston, U.K., with a cargo of lumber from the Hastings mill consisting of 923,955 feet of rough lumber. The cargo was valued at \$9,881.95, and the charter rate was 52s. 6d. The British ship County of Yarmouth, 2,154 tons, Capt. Swanson, now at San Francisco, has been chartered by the B. C. Mills Timber and Trading Co., Ltd., to load lumber at the Hastings mill for Cork, U.K. at 50s. She will carry about 1,800,000 feet, and will load some large timber. The German ship Katharine, 1,630 tons, Capt. Spille, which was chartered to load lumber at the Moodyville mills for Valparaiso, arrived too late, her charter having expired. She has, however, been re-chartered. The British barkentine Bittern, 399 tons, Captain Stronach, has arrived to load lumber at the Hastings mill for western Australia, on the owner's account. There are now five vessels loading lumber in the Province; two at the Hastings mill, two at the Moodyville mill and one at Cowichan.

COAST CHIPS.

W. J. Snodgrass, who is erecting a saw mill at Okanagan Falls, expects to have it completed in about a month.

Samuel Rathwell, a mill hand at Revelstoke, was crushed to death beneath the timbers of the new saw mill, a portion of which gave way. Deceased was a single man.

The Canada western railway has secured its land grant of 20,000 acres to the mile for 1,200 to 1,400 miles of road. The line will be built from Victoria, B.C., eastwardly through the province, and eventually into Manitoba, and on to Hudson bay. The land grant amounts to 24,000,000 to 28,000,000 acres.

The Hastings mill has been closed down for a few days for repairs. The mill has been running continuously for eighteen months and during that period there has always been a vessel loading. The British barque Highlands, which has just finished loading a cargo from this mill sails in a few days for Montreal. The cargo comprised 896,663 feet of rough lumber.

NEW WESTMINSTER, B.C., Jan. 23, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE lumbermen of Michigan, at least an important section of them, have taken preliminary steps to organize themselves into an association. A meeting was held at Grand Rapids on the 11th inst. The proposed association is not to include retail dealers of the State, nor yet mill men, but only those who are regularly distributing by rail. The object is to protect its members against fraud from unscrupulous dealers, who in some cases make a practice of claiming shortages on lumber received, or raise the objection that the stock is of inferior grade. "Then again," said Mr. W. B. Mershon, who is taking an active interest in promoting the organization, "we have printed on our price lists and invoices our terms are 60 or 90 days from date of bill of lading, whichever the case may be, and yet these people will wait 30 or 40 days after the car has been shipped, and send in a note running 90 days from that time. In other words, steal \$3 or \$4 interest. The amount in dispute is not large enough in any case for a law suit." It is believed there is both the necessity and work for the new association.

THE OUTLOOK FOR TRADE.

Mr. Mershon, in answer to the question, "What is the outlook for trade the coming year?" replied: "My opinion is that we will have all we can do for the first six months at least. It looks to me now as if the dry stock would all be exhausted 30 days before the new cut is ready for market. There is no doubt but what an immense amount of lumber will be manufactured this year, but on the other hand the demand has been so great that the yards are running with very small stocks, and it will take a great deal of lumber to stock them up. The box trade is in a good condition, though prices have not been advanced as much as the raw material has been. After midsummer I look for lower prices than will rule in the spring, though they may not be lower than they are now, as I believe prices will advance between now and the first of May. Our selling prices are on an average \$1.50 a thousand higher than a year ago."

BITS OF LUMBER.

Thompson Smith's Sons, of Alpena, have contracted to cut 12,000,000 feet of Canadian logs that will be towed across the lake.

Liken and Bach, of Unionville, have moved their laven mill from Fairgrove to Winsor, where they have enough timber to last several years.

Temple Emery, who recently returned from the centre of his lumbering operations in the Georgian Bay district, brings news of deep snow and very cold weather.

Loggers are happy, so far as the quantity of snow is concerned, there being over two feet of snow in the woods, but a thaw is very much to be desired to make slipping easier.

Signor Simon Mochre, of Havana, Cuba, who is here for the purpose of purchasing several million feet of lumber to ship to Cuba, is finding it no easy matter to secure the stocks wanted, so scarce is white pine.

At the annual meeting of the stockholders of the Thunder Bay River Boom Company held here on Wednesday last, the following were elected directors: W. L. Churchill, F. W. Gilchrist, Albert Pack, F. W. Fletcher, W. H. Johnson, E. O. Avery, Thomas Collins. The company delivered 1,504,556 logs during the season.

The Saginaw Lumber and Salt Company has extended its corporate existence 10 years, with a paid up capital of \$100,000. The following are the officers for the new year: President, R. A. Loveland; vice-president, Otis Shepard; secretary, R. H. Roys; treasurer, D. L. White, jr.; Board of Directors: R. A. Loveland, Otis Shepard, R. H. Roys, David McLaren, and H. B. Shepard. This company cut 25,000,000 feet of lumber the past season at their mill on Crow Island and 10,000,000 feet at other mills; they also made 42,241 barrels of salt.

During 1892 the Flint & Pere Marquette railroad hauled 124,700,585 feet of logs, of which 71,449,115 feet were brought direct by rail to the Saginaw river. The others were banked at Midland and Averill, and came through the Tittabawasee boom, and a small quantity were hauled to Flint. The road has hauled as follows:

	FEET.
1882.....	95,294,630
1883.....	153,459,353
1884.....	131,589,429
1885.....	97,712,270
1886.....	134,161,236
1887.....	215,291,134
1888.....	161,737,305
1889.....	142,835,198
1890.....	123,588,775
1891.....	120,413,987
1892.....	124,700,585

Total 1,500,784,902

SAGINAW, Mich., Jan. 27, 1893.

THE NEWS.

ONTARIO.

—Robert Hodden has removed his saw mill to the town line of Tay and Medonte.

—A local correspondent reports a great depletion of timber in Onslow township during the past five years.

—David Blackley, Hamilton, is organizing a company to manufacture a barrel-making machine invented by W. T. Vale, a Toronto man.

—The firm of Heath, Tait and Trumbull, Huntsville, has now become the Huntsville Lumber Co., with Mr. William Trumbull as secretary.

—E. Thompson and Sons, of Peterborough, have a considerable gang of men at work in the township of Harvey, getting out square timber.

—The lumber barge Lothair, owned by Robert Thomson and Co., was burned at the dock, Windsor, a fortnight ago. A considerable loss is suffered.

—The timber limits situated in the township of Harvey, and owned by the Lakefield Lumber Company, have been purchased by the Rathbun Co. for \$5,050.

—D. L. Van Vlack is suing the Toronto Wood and Shingle Company for \$2,188. The defendants have also issued a writ against Van Vlack for about the same amount.

—The Chatham Manufacturing Company, Chatham, are taking advantage of the excellent sleighing, and are getting out a large quantity of white oak, hickory, ash and balsam.

—Mr. Peter Jackson, of Oro, cut from a birch tree a giant hand with a very complete palm. The fingers are only three, and the thumb and middle finger rather slender, but it is quite an odd growth.

—The relatives of the young man, Thomas F. Hurdman, who was killed in a lumber car a few weeks ago, will enter suit for damages against the Canada Atlantic Railway Company in the sum of \$10,000.

—Richard Rowe and Alex. Wallace, charged with highway robbery on Thomas O'Brien, a lumberman from the country, were sentenced by Police Magistrate Denison, of Toronto, to six months in the Central Prison for Rowe and three years in the Kingston Penitentiary for Wallace.

—The Conroy mills at Lake Deschenes, with its many improvements and additions, will take rank among the largest mills on the Upper Ottawa next summer. The firm have decided to lay tracks throughout the lumber yards in the spring, and use a small locomotive similar to the one at Buell and Hurdman's for shunting purposes.

—Stephen McGonegal, a jobber for the Rathbun Company on the Mackay limits, recently cut for the Lavant operations sixty-five logs from four trees. From one tree he cut seventeen logs 13 feet and four 16 feet in length; from a second tree he cut seventeen logs 13 feet long; from the third fifteen logs 13 feet long; and from the fourth twelve logs 13 feet in length.

—Mr. Sam. Main, of Webbwood, agent of the Savidge Lumber Co., of Grand Rapids, Mich., has been into the Algoma section lately. His company expects to cut about eight million feet of logs this winter. Moiles Bros., of John's Island, have the contract of sawing their logs. The firm expects to build a mill of their own on or near the Spanish river this year.

—A meeting of the Spanish River Boom Co. was held in the Rossin House, Toronto, a fortnight ago. This company is composed chiefly of Americans who are interested in the transport of logs on Spanish River, and the object of the meeting was to take measures as to the better arrangements of transport facilities. Mr. E. T. Carrington, of Spanish River, was president, and Mr. E. W. Arnold, of Albany, secretary. Gen. R. A. Alger, one of the aspirants for the presidential Republican nomination, was present, as were also Messrs. Dwight Cutler, Grand Haven, Mich.; William Savage, Grand Haven; James Wilson, Grand Haven; Edmund Hall, Detroit; Frederick T. Norris, Bay City; J. A. Bucknell, Saginaw; R. Harvey, Bay City, and others.

—Messrs. A. Tait, of Orillia, A. Heath, of Huntsville, Joseph Tait, M.P.P., and John Waldie, of Toronto, have formed a joint stock company for the purpose of improving the Big East River and its tributaries. The company have purchased all the right, title and interest of the Muskoka Dam, Slide and Boom Co., and has already made extensive improvements, such as dams, slides, chutes, etc. The name is, the Big East River Improvement Company. Their object is to enable lumbermen having limits on those waters to float their square timber and logs speedily to the points required. Of course one of the principal objects of most of the members is to enable the Huntsville Lumber Company to bring the pro-

duct of their new limits to their mill at Huntsville. But the charter protects the rights of others, and the Ontario Government will control the amount of toll to be charged, and in other respects will prevent the possibility of the privileges granted this company from being used to the detriment of any.

QUEBEC.

—H. Lovell and Sons, of Coaticook, are busily engaged in fitting up their mills in the Oxford lumber woods preparatory to their winter cut of clapboards.

MANITOBA AND THE NORTHWEST.

—McKerlie and Dillingham, lumber dealers, Wawanesa, Man., have assigned.

NEW BRUNSWICK AND NOVA SCOTIA.

—A New Brunswick firm is milling five hundred thousand of spruce lumber for shipments to St. John's, Nfld.

GENERAL.

—One of Maine's most active and experienced lumbermen says he never knew a season in which so much timber was yarded early as has been this year.

—The firm of Gombert and Thompson, lumber dealers, of North Tonawanda, N.Y., has been dissolved by mutual consent. James O. Thompson will continue the business.

—A large consignment of walnut logs was recently shipped from Galveston, Tex., to Antwerp, where they are to be made into telephone boxes and reshipped to the United States.

—The Illinois and Wisconsin Lumber Company is putting in 26,000,000 feet of logs, to stock its Merrill, Wis., mill for next season's sawing. Crandall, Schultz and Co., of Chicago, purchased the entire cut for distribution.

—An oak tree was recently cut on a farm near Bedford, Ind., which yielded a log 40 feet in length, 6½ feet in diameter and 4¼ feet at the top. The log is without knot or blemish of any kind, and will be exhibited at the World's Fair.

—Chicago's lumber receipts last year aggregated, in round numbers, 2,200,000,000 feet. The shipments amounted to 2,300,000,000 feet, leaving a shortage of near 100,000,000 feet, which will have a tendency to continue the prevalent firm prices.

—Merriman and Huntingdon, of Minneapolis, the hardwood firm which began business last summer, will establish a system of retail pine yards on the new extension of the Minneapolis and Pacific railway, running northeast from Oakes to Bismarck, North Dakota.

—A resolution proposed by the Portland, Ore., chamber of commerce expressing the approval of the board of all measures calculated to further protect the timber lands of the country and to make additional reservations of the same has been adopted by the national board of trade.

—According to the Zeitung, of Cologne, the owner of a cherry tree, which stood on a piece of ground required for the enlargement of the railroad station at the village of Niederlohnstein, was recently paid \$600 for the tree in addition to the value of the land, and accepted this sum only after a long contention, declaring that the tree was worth at least \$900. Therefore, be sure and plant cherry trees.

—Chas. Wilson Rowe, who succeeded in swindling a large number of lumbermen in Canada and other portions of the country to an amount estimated at from \$50,000 to \$100,000, by soliciting consignments on lumber and making no returns therefor, has been arrested and placed under \$2,000 bail for trial next month at Philadelphia. The charge under which he is held is for using the mails for purposes of fraud. The Missouri Lumber and Mining Company, of Missouri, were mulcted in the sum of \$834.68 and others in greater or lesser amounts.

PERSONAL.

Mr. Amasa Rust, a millionaire lumberman, of Saginaw, Mich., died on the 26th ult.

Honorable H. G. Joly and G. W. Allan are vice-presidents of the American Forestry Association.

We regret to learn of the death of the little three-year-old daughter of Mr. Jas. Burton, of Burton Bros., lumbermen, Barrie, Ont.

Mr. G. H. M. Baker, the popular agent of the Rathbun Company, at Lindsay, Ont., has been united in marriage to Miss Clara Carter, of Picton.

On the 25th ult., at the residence of the bride's mother, Toronto, Michael Robinson, vice-president of the Toronto Wood and Shingle Company, was united in marriage to Delia Mullaney, niece of the late James Beatty, proprietor of the old Leader newspaper of Toronto. The presents were numerous and costly.

His many friends mourn the death of Duncan C. Robertson, late of the Bronson and Weston Lumber Co., Ottawa, Ont. Deceased was 42 years of age, a son of the late Donald

Robertson, having lived in Ottawa during his life-time. He was a good scholar, a gold medallist at 15 years of age, and taught school until 1872, when he entered the employ of the Bronson and Weston Company, where he remained until last February, when he suffered from an attack of grippe, followed by a pulmonary disease from which he never recovered.

Mayor Beck (the Beck Manufacturing Co.) and Mrs. Beck, of Penetanguishene, Ont., entertained a large party of friends at their magnificent residence on the evening of Jan. 17, the occasion being the twenty-fifth anniversary of their wedding. The gathering closed with a sumptuous supper served about midnight, at the termination of which Rev. Father Labrecque in a neat speech proposed the health of host and hostess, which met with an appropriate response from Mr. Beck. Mr. Beck is one of the large and popular lumbermen of the Penetang district.

FIRES AND CASUALTIES.

FIRES.

—The new steam saw mill of John F. Pyer and Son, Shelburne, N.S., was destroyed by fire. Loss \$8,000.

—The saw mill of J. Lackey, near Markdale, Ont., was destroyed by fire a week ago. Loss, \$3,000; insured for \$1,900. Mr. Lackey will likely rebuild.

CASUALTIES.

—Sam McCloughlin, a logger, was killed at Cardora Bay, B.C., by a log falling on him.

—A. D. Hanson, of Woodstock, N.B., was killed by a falling tree while logging on the Nockanick.

—J. Murray, of Campbellton, N.B., was killed in the woods, 60 miles up the Restigouche, by a falling limb.

—A lad named Cleimer had both his legs broken while working in Carlin and Lake's lumber camp near Calgary, N.W.T.

—George Dale, of Hullett, Ont., is suffering from a painful accident caused by the teeth on a saw for cutting logs, lodging in his leg. Blood poisoning is feared.

—A painful accident occurred in Hardie's mill, Lime Bank, Ont., when Hopkins, the foreman got his hand jammed between the saw carriage and a heavy plank.

—Frank Phaneuf, of Tilbury North, Ont., when drawing logs on the 13th ult. received a kick from one of his horses, breaking his upper jaw on both sides and knocking out two of his lower teeth.

—A report from Maine says a lumbering camp became a prey to the flames at night, and that four men and forty horses were burned to death. Norton Mills, where the fire occurred, is inhabited almost entirely by French-Canadians.

—Several horses have been drowned during the past month in the northern lumber territory in consequence of the bad condition of the ice. Among these were a team at Caswell's camp, a horse at Robinson's camp, a team of the Midland and North Shore Lumber Co., and Chew Bros. are also said to have been losers.

—Word has been brought to Larkensville, Que., that a chopper on the Kippewa had been engaged felling a tree when it split in falling, one half striking the unfortunate man and killing him. There has been neither ice or boating, so they were obliged to bury the poor fellow under a brush pile until further convenience could be had to remove him to his home.

—A report comes from the Black river district to the effect that a shantyman named McCann lost a valuable team while on his way to the woods. McCann was employed as a jobber by the Hawkesbury Lumbering Co., and was crossing Lake St. Patrick with a load of sleighs when his team broke through the ice. The extreme cold weather prevented the owner from recovering the animals.

TRADE NOTES.

We acknowledge the receipt of a desk calendar for 1893 from the Ottawa Lumber Co., Ottawa, one of the tastiest we have seen this year.

A number of the celebrated Perkins' Grand Triumph hand feed shingle machines, manufactured by the Wm. Hamilton Manufacturing Company, Peterboro, are being placed in the new shingle mill of the Parkins Lumber Company, Lindsay.

Carl Gartner, the well-known lumberman, of Hamburg, Germany, has opened a branch office of his business in London, Eng. This branch will occupy itself with selling and buying all kinds of oversea wood goods, as agents only. Mr. Geo. Becker, who has been residing in London 15 years and who has a thorough understanding of the English trade, will have the management of the branch, and associated with him will be Mr. Gartner's son Enil, and Mr. Carl Peters, who comes from the head office.

CANADA'S LUMBER TRADE IN 1892.

A Review of the Business of the Year.

THE GENERAL SURVEY.

NO one will read the review of the lumber trade of the various provinces of the Dominion, which follows, without being convinced that 1892, taken altogether, was a fairly good year for the lumber industry, and undoubtedly a marked improvement on the several years of dullness that had preceded it. In Quebec, where lumber had suffered a discouraging depression for years, bringing the volume of shipping down in a noticeable degree, matters were much improved in many ways in 1892. Mr. Snowball, in his very full review of conditions in the Maritime Provinces, is able to paint a brighter picture than he did a year ago when he had to deplore a marked decline in shipping in every shipping point in New Brunswick. The delivery of 1893 and prices are expected to be higher than during recent years. British Columbia's trade has been less brisk than the lumbermen of this new province had expected, yet a fair trade was done; the possibilities in lumbering on the Pacific coast are full of promise, and only await an improvement of trade and commerce in foreign export fields, to cause these promises to materialize. Ontario had a good year's trade shown in an increased out-put, better prices and almost an entire clearing out of stocks at the close of the season. A busy winter is the record of the woods. The abundant snow in all parts of the country is adding to the ease and success of this work.

ONTARIO.

Reports from LUMBERMAN correspondents in various parts of the province indicate very clearly that 1892 was a much better year for lumber than 1891, and several years previous. In the letters of enquiry sent out from this office several questions were asked and the statement made above is based on the replies received. In answer to the question, "How does the volume of trade compare with the year previous?" ninety per cent of the replies tell of an increase. In some cases this increase has not been remarkable, but it has been an increase, whilst others have answered in these words, "Has never been better," "Considerably larger than in 1891," and similar expressions, indicating an encouraging improvement. What adds special interest to these replies, are the answers to the question which follows: "Proportionate with size of business done have profits improved or not?" Fully ninety-five per cent are in the affirmative, showing, surely, that the day of doing a lumber business for the fun of the thing, which to a large extent, was, practically, the result for some years past, up to 1891, was not the history of 1892. Then followed the enquiry: "Whether stocks on hand were as large as those of a year ago." On this point, with few exceptions, the replies told one story only, either that stocks of lumber on hand at close of year were very light, or "sold out."

The home trade has, perhaps, held its own, and in some cases a slight improvement is reported, but it is perfectly clear that the lumber trade of Ontario would be limited in its character were it a case of selling Canadian lumber to Canadians only. The export trade with the United Kingdom has not shown any great measure of strength, and it is a moot question with lumbermen just how soon lumber will show any substantial signs of improvement in Great Britain. Business with the United States has grown to large proportions during the year, and there can be little doubt but that trade with that country will be further increased in 1893.

The Montreal Journal of Commerce says of the lumber trade of 1892: "The production in white pine lumber of the Ottawa Valley is about 500,000,000 feet, b.m., of which about 200,000,000 feet went in deals to Europe and the balance in sawn lumber to the United States and South America. The entire capacity of the mills in the Ottawa Valley is about 600,000,000 feet. Operations are now going on in the woods to get out logs to produce about the same amount as last year. There is no chance of any glut in the pine deal market, so holders in Britain have no fears of any decline in prices from an

overstock. It is estimated that the coming season's get-out of Pine timber will be as follows: Ottawa district—1,500,000 cubic feet square; 250,000 cubic feet waney. Western Canada, Michigan, etc.—about 1,000,000 cubic feet waney. It is estimated that the get-out of oak timber in the latter districts will foot up about 1,000,000 cubic feet. Good oak timber is getting more and more scarce and costly. We understand exporters have paid 51 to 52 cents for new contracts. We understand some of the south-western oak now goes down the Mississippi for shipment at New Orleans. Quite a contract has been given to a Canadian firm for delivery at New Orleans next season."

QUEBEC.

The J. Bell Forsyth Co., in their annual review of the lumber trade of Quebec for 1892, say: "There has been a marked increase in the arrivals from sea this year, as shown by the Statement compiled by Mr. F. Johnston, viz: 379 ocean steamers, 753,379 tons, against 313 ocean steamers, 623,858 tons last season, and 346 sailing vessels, 307,301 tons, against 251 vessels, 233,327 tons in 1891. While from the lower ports there has been a fair increase, the total arrivals being 570 vessels, including steamers.

It will be observed from this, that the business of the port, comparing it with last year's statement, has considerably increased. Owing to the light imports of 1891 with fair consumption and very moderate stocks, the market in Great Britain improved during the past winter with a decided advance in prices towards spring, consequently vessels were freely chartered for Quebec and the spring fleet was considerable. The arrivals during the summer and autumn were likewise numerous.

WHITE PINE.—The shipping merchants were fairly stocked, and the market opened in the spring of this year with increased demand. As the season advanced prices improved and a number of rafts changed hands at enhanced rates. The demand has been chiefly for good and superior woods, while choice waney of large average girth and long lenial has been very scarce. As a proof of these remarks we have only to refer to the sale of government timber limits lately held at Toronto, when the competition was so brisk on the part of the manufacturers, that the prices then realized were far in advance of anything yet paid in Canada or in the United States.

It will be observed by the returns from the Supervisor of Cullers' Office that the quantity of timber measured was greatly in excess of last year.

The stock now wintering is an exceedingly light one and is largely held by the producers. It is likely that the manufacture, this winter, will not exceed that of 1891-1892, both in western Canada and on the Ottawa. It must be remembered, however, that the quantity then cut was light and the difficulty of procuring choice standing pine is now so great that we look for a further advance in prices, and the bulk of the new wood cannot reach market till the season is well advanced.

It should also be borne in mind that last year nearly two millions wintered on the Ottawa river, whereas this year there is not over half a million feet. Taking into account the available supply of square and waney pine in sight there is a difference of forty per cent. less than last year and this shrinkage is largely in waney pine. Thus:

Wintered over 1891 at Quebec (about).....	5,000,000 feet
" " Ottawa " 	2,000,000 "
Wintering over 1892 at Quebec (about).....	7,000,000 "
Wintering over 1892 at Ottawa (about).....	4,000,000 feet
	4,500,000 feet
	4,500,000 "
Showing a reduction of.....	2,500,000 "

	Supply.	Export.	Stock.
1892 { Square	2,379,825 }	5,300,440 . }	2,835,010 Square
{ Waney	2,739,815 }		1,617,650 Waney
1891 { Square	1,072,002 }	4,715,120 . }	2,943,680 Square
{ Waney	1,730,609 }		2,048,898 Waney

RED PINE.—The supply has been very moderate, and as we remarked last year, this wood is not in great request and is becoming scarce, possibly a better feeling in the Irish market which has been long hoped for may again cause an increased demand for this wood.

	Supply.	Export.	Stock.
1892.....	393,701.....	370,680.....	359,455
1891.....	41,680.....	249,350.....	348,165

OAK.—The demand has been greater than last year and prices have somewhat advanced, the stock wintering in the port is light. As it is well known in England that oak is wintered at Garden Island and Collins Bay and delivered here in May and June, some allusion should be made to it. We hear the quantity at both these depots is very much reduced. The wintering stock and estimated production is almost equal to an average export, therefore we may expect prices to rule firm next season.

	Supply.	Export.	Stock.
1892.....	915,913.....	1,127,580.....	291,541
1891.....	679,506.....	897,280.....	522,040

ELM.—The demand has been fair and prices good, the stock wintering is light. As we stated in our last year's circular, this wood is difficult to procure even at the high prices now given for standing timber.

	Supply.	Export.	Stock.
1892.....	706,843.....	637,800.....	181,811
1891.....	488,731.....	657,800.....	102,608

ASH.—It is a wood not in much demand, therefore little has been shipped. Large timber of choice and good quality is difficult to procure. Stock wintering is light.

	Supply.	Export.	Stock.
1892.....	198,806.....	177,880.....	49,009
1891.....	401,060.....	130,320.....	21,357

BIRCH.—The supply of this wood is in a great measure regulated by prices offered; rather a heavy stock wintering. As far as we can ascertain the demand is very slack at present.

	Supply.	Export.	Stock.
1892.....	411,219.....	345,840.....	43,503
1891.....	133,997.....	148,320.....	13,177

STAVES.—Very little business is now done at the port of Quebec in the shipping of staves.

	Supply.	Export.	Stock.
1892 { Pipe.....	4.....
{ Punccheon
1891 { Pipe.....	10.....	13.....	5
{ Punccheon	4.....	77.....	1

DEALS, PINE.—There has been a large business done in this department of our trade during this season. The quantity of deals sawn at or near Quebec is now limited, the supply being chiefly from the Ottawa and western Canada, and the bulk of the shipments from Montreal by steamers or by sailing ships, shews only a small stock wintering at this port.

	Supply.	Export.	Stock.
1892.....	979,796.....	861,945.....	142,633
1891.....	983,239.....	704,472.....	274,782

SPRUCE DEALS.—Opened as in the spring of 1892 rather heavily, but improved towards the fall of the year. The stock is light and from all accounts we believe the production of logs will be on a very moderate scale this winter. The deal business at the Montmorency mills has virtually ceased, as the property has been purchased by the Quebec and Levis Electric Light Company, and the large annual cut from this old establishment will be a thing of the past.

	Supply.	Export.	Stock.
1892.....	3,259,391.....	3,629,783.....	579,558
1891.....	2,955,979.....	2,280,049.....	1,199,950

SAWN LUMBER.—Has been in good demand this season and at advanced prices. The American market is active and prices firm.

Pine is quoted at \$14 to \$18 per 1,000 b.m., and spruce at \$11 to \$14, according to quality, sizes, etc.

Freights opened at 19s. for timber, and 50s. for deals; closed at 15s. for timber, and 35s. for deals.

MARITIME PROVINCES.

We are indebted, as usual, for the very comprehensive report of trade in the Maritime Provinces, which follows, to the annual wood trade circular of Mr. J. B. Snowball, of Chatham, N. B.

The season of 1892 proved a fair average one for winter operations and procuring logs. The spring was cold and late, with a much less quantity of ram than usual; consequently, the brook-driving was slow and expensive, which added largely to the cost of logs.

The export from Miramichi for the past season was 95,000,000 super. ft., being the largest shipment since 1889. The merchantable stock wintering at this port, however, is only about 7,000 standards, against 11,000 standards at the corresponding date last year, and in saw logs, 3,000 standards, against 2,000 standards the corresponding date last season. The stock wintering in other portions of the province is computed to be not

larger than last season's; most of the outports having shipped all their production.

The export from Nova Scotia, although slightly larger than last season, was only an average one, and appears to be about the full capacity of export from that province.

Shippers anticipate an immediate improved demand from the United States and South American markets, and if their expectations in this regard are fulfilled, the trans-Atlantic export from the province will probably show a considerable decline. The winters in this section of the province appear to be changing rapidly, but operators in the forest are adapting themselves to the changed mode of getting logs. We have not had any snow up to date, Dec. 31, and but little frost.

The out-put of logs on the Miramichi, it is estimated, will be 10% short of last season's, and this, with the small stock wintering, would denote a reduced export; it is yet early, however, in the season to make any definite predictions as to the out-put of logs, as it depends so largely on the character of the winter.

The demand for laths and that class of stock has been better in the United States market than for years past, and the prospects for next season are considered good. If this is realized, the manufacture of palings and staves for the European market will be discontinued, as the present low prices of those articles in Europe would not justify their continued production.

The New Brunswick Crown Land Commissioners completed their labours in March last, when they submitted their report to the Government of the province, which body now has it under consideration. The extent to which the suggestions of the Commissioners will be adopted by the Government and Legislature will, of course, not be known until after the approaching session of the latter body, but the general impression is that they will be substantially approved. The Commissioners emphasize the discouraging condition of the British and Continental wood markets, and the disabilities under which the New Brunswick trade labours by reason of the excessive stumpage-tax imposed upon its raw material. They, however, anticipate the diversion of a great proportion of our future business in wood goods to the United States, which will, if realized, render us less dependent upon the trans-Atlantic markets. The recommendations made favour—amongst other things—greater permanency in the tenure of timber land holdings by operators; a law to encourage the improvement of streams for timber-driving purposes; increased precautions for the protection of our forests from fire and the discontinuance of the abuse of our liberal free-grant laws, by which many settlers have, in the past, obtained free lands mainly for the purpose of denuding them of their valuable timber, etc.

The heavy import duties imposed by France on all woods have seriously interfered with our trade with that country. Those duties are of two classes, designated as with favoured and unfavoured nations, and while the United States, Great Britain and the north of Europe are classed as favoured, Canada is placed under the unfavoured clause, and our trade is consequently almost prohibited. The effect of this discrimination against us is shown in the fact that while our shipments to French ports last year were carried in 38 vessels aggregating 25,646 tons, those of this year required only 17 vessels aggregating 10,776 tons.

SHIPMENTS FROM MIRAMICHI FOR 12 YEARS.

Sup. feet.	Sup. feet.	Sup. feet.
1881—128,000,000	1885—87,000,000	1889—110,000,000
1882—117,000,000	1886—72,000,000	1890— 88,000,000
1883—149,000,000	1887—68,000,000	1891— 72,000,000
1884—108,000,000	1888—73,000,000	1892— 95,000,000

SHIPPERS FROM PORT OF MIRAMICHI, SEASON OF 1892.

Shippers.	No. Vessels.	Tons	Sup. ft. deals, scantling, ends and boards.	Palings
J. B. Snowball.....	38	28,443	24,730,591	2,223,360
Wm. Richards.....	23	19,699	17,987,498	
W. M. McKay.....	22	18,890	17,722,654	29,000
D. and J. Ritchie.....	23	12,625	12,199,258	
E. Hutchison.....	14	10,169	9,280,654	94,800
G. Birchill and Sons....	6	7,199	8,081,000	
F. E. Neale.....	6	4,588	4,745,119	
American Spool, Bobbin & Shuttle Co.....	2	1,952	160,749	
Totals.....	134	103,565	94,907,523	2,347,160

J. B. Snowball: birch, 170 tons; pine 58 tons. American

Spool Bobbin and Shuttle Co., 1,093,733 spool wood pieces.

DISTRIBUTION OF ABOVE SHIPMENTS.

Country.	No. Vessels.	Tons	Sup. ft. deals, scantling, ends and boards.	Palings
Great Britain.....	75	61,632	55,494,073	2,257,575
Ireland.....	45	32,235	31,267,221	89,585
France.....	7	4,893	4,073,991	
Africa.....	3	1,852	1,770,955	
Spain.....	2	1,190	931,542	
Australia.....	2	1,763	1,369,741	
Totals.....	134	103,565	94,907,523	2,347,160

Great Britain: Birch, 170 tons; pine 58 tons; spool wood, 1,093,733 pieces.

ST. JOHN SHIPMENTS, 1ST DEC. 1891 TO 1ST DEC. 1892.

Shippers.	No. Vessels.	Tons.	Sup. ft. deals, scantling, ends and boards.	Tons Timber
Alex. Gibson.....	30	41,120	40,625,217	1,608
W. M. McKay.....	98	96,834	82,357,857	1,608
Geo. McKean.....	34	25,250	11,759,200	8,642
J. and L. B. Knight.....	2	2,003	1,787,034	
Totals.....	164	165,207	146,529,309	10,250

DISTRIBUTION OF ST. JOHN SHIPMENTS, 1892.

Countries and Ports.	No. Vessels.	Tons.	Sup. feet deals, scantling, ends and boards.	Birch (tons.)
Africa.....	1	440	420,622	
Barrow.....	3	4,208	4,358,540	
Bristol.....	3	4,114	4,076,810	
Continent.....	6	3,591	3,213,902	
Fleetwood.....	8	11,749	11,223,941	
Garston.....	1	1,373	1,376,772	
Harwich.....	1	799	734,547	
Ireland.....	58	37,936	36,575,871	
Liverpool.....	39	55,789	48,703,491	9,348
London.....	7	9,624	2,052,095	354
Maryport.....	1	324	385,983	
Penarth Roads.....	9	9,607	9,646,679	
Scotland.....	3	1,903	1,874,157	225
Sharpness.....	5	6,538	6,760,589	
Wales.....	19	17,212	15,125,310	323
Totals.....	164	165,207	146,529,309	10,250

SHIPMENTS FROM ST. JOHN TO TRANS-ATLANTIC PORTS AND COUNTRIES FOR THE PAST 15 YEARS.

	Total sup. ft. deals, etc.	Timber (tons)	
		Birch	Pine
1878.....	188,168,610	7,989	2,493
1879.....	153,279,357	11,548	3,237
1880.....	215,485,000	16,035	2,441
1881.....	210,281,730	5,134	1,734
1882.....	201,413,717	7,576	3,332
1883.....	181,517,932	11,778	3,883
1884.....	164,829,825	14,006	3,836
1885.....	152,543,026	13,769	3,686
1886.....	138,934,392	7,354	4,313
1887.....	118,450,590	5,197	1,587
1888.....	153,184,187	4,721	457
1889.....	180,167,488	7,221	487
1890.....	132,608,516	1,311	4,317
1891.....	122,242,682	5,004	
1892.....	146,529,309	10,200	

THE TOTAL TRANS-ATLANTIC SHIPMENTS OF NEW BRUNSWICK IN 1891, COMPARED WITH 1892.

—1891—

Ports.	No. Vessels.	Tons.	Sup. ft. deals, etc.	Tons Timber
Miramichi.....	113	79,412	72,408,912	329
St. John.....	155	138,174	122,242,682	5,004
Bathurst.....	15	7,698	7,175,000	268
Dalhousie (including Campbellton).....	35	21,534	18,837,900	458
Richibucto (including Buctouche).....	21	11,654	11,188,755	
Shediac.....	17	8,145	8,219,739	
Sackville (outport of Baie Verte).....	24	12,819	12,447,000	
Totals.....	380	279,436	252,519,988	6,059

—1892—

Miramichi.....	134	103,565	94,907,523	228
St. John.....	164	165,207	146,529,309	10,250
Bathurst.....	17	10,746	9,866,015	24
Dalhousie (including Campbellton).....	48	25,615	22,568,604	805
Richibucto (including Buctouche).....	29	13,877	13,002,512	
Shediac.....	23	11,278	10,156,333	
Sackville (outport of Baie Verte).....	24	13,775	14,576,566	
Outports of { Hillsboro Harvey } ..	16	13,712	13,542,949	
Moncton { Cocagne }				
Totals.....	455	357,775	325,149,811	11,307

The transatlantic shipments from the Province of New Brunswick for the past ten years were:

1883—411 millions	1888—277 millions
1884—333 "	1889—369 "
1885—292 "	1890—293 "
1886—276 "	1891—253 "
1887—250 "	1892—325 "

SHIPMENTS FROM NOVA SCOTIA, 1892.

Ports.	No. Vessels.	Tons.	Sup. ft. deals, etc.	Tons Timber
Amherst.....	18	13,445	11,938,220	
Gold River.....	1	628	570,179	
Halifax.....	50	31,514	25,286,120	2,298
Liscomb.....	4	3,638	3,129,055	
Jordan River.....	2	1,153	1,016,289	
Parrsboro.....	33	34,994	31,815,627	
Pictou.....	11	9,372	5,799,000	4,021
Sherbrooke.....	1	420	289,980	
Sheet Harbour.....	10	6,133	5,615,604	
Ship Harbour.....	2	1,780	1,531,010	
Yarmouth.....	1	880	870,314	
Totals.....	133	103,957	87,861,398	6,319

The shipments of deals from Nova Scotia to transatlantic ports for following years were:

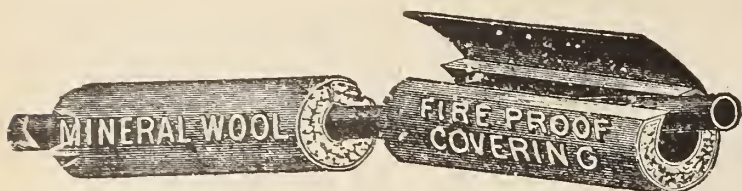
1883.....	77,918,000	1888.....	85,070,005
1884.....	69,159,000	1889.....	92,605,488
1885.....	79,647,765	1890.....	99,512,924
1886.....	87,280,125	1891.....	78,603,742
1887.....	82,959,589	1892.....	87,861,398

MANITOBA AND THE NORTHWEST.

The interest in lumbering in these provinces is principally in the line of manufacturing, combined with a considerable representation of retail lumbermen in all the important towns of the provinces. The retail men are united in a well-organized association and are known for their well-planned and thorough-going methods of conducting business. The main supplies of lumber are obtained from the Keewatin and Lake of the Woods territories, while the British Columbians are active and energetic in pushing their lumber and shingles into these provinces. The cut for the year of the leading mills shows some increase over the figures of 1891, while stocks on hand are about twenty per cent. greater. Dick, Banning & Co., Winnipeg, cut in 1892 10,600,000 feet and Cameron & Kennedy, Norman, 15,000,000 feet. The American consular representative at Winnipeg reports to the Government that the dutiable importation of lumber from the United States during 1892 amounted to \$31,020. The importations of lumber and timber coming under the free classification reached a valuation of \$8,419, and the dutiable imports of wood and manufactures thereof amounted to \$83,587 from the United States, and \$2,147 from Great Britain. It is expected that there will be a large influx of immigration into the Northwest Territories this year, which will mean a large demand for lumber, if not immediately, at least in the near future.

BRITISH COLUMBIA.

1892 was not an over profitable year for lumber in British Columbia. Business has suffered from the common cause of over-production, helped on largely by the reaction from the period of inflation in real estate, which for a few years back affected the people of the Pacific coast, as it had touched those of other provinces in their time. It is believed, however, that the worse results of these particular conditions have now been exhausted and the general commerce of the province already shows healthful indications of progress and improvement. The lumber trade has owed the larger share of any depression it has suffered, outside of the general causes just stated, to the disorganized condition of trade in South America and Australia, two of the most important fields of export. This has been felt in reduced profits, rather, perhaps, than in an actual decrease in shipments abroad. Freight rates have been so low throughout the year that considerable shipments have been made, but prices have ruled so disastrously low that outside of a certain doubtful advantage obtained in turning over stocks, the business has been done without a profit. The home trade has, on the whole, been sluggish, so that from both the home and foreign point of view, the year 1892 will not take rank as a red letter year for lumber. Such is the retrospect; the prospective, as is usually the prospective, is more hopeful, and with some good reason to anticipate better things. There are between fifty and sixty saw mills in the province. They call for a deal of cutting to keep them running full time the season through. During the past year they did not average more than about half time, but a more active state of affairs will, it is confidently expected, be the record of 1893. The richness of the timber resources of this province, combined with the splendidly equipped mills that have been constructed for the manufacture of timber, leaves no uncertain prospect of the ultimate results of lumbering on the coast.



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Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WANTED—A SITUATION AS FILER IN A sawmill. Have had nine years' experience with gang and round saws. Address "H," 3 Maitland St., Halifax, N.S.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. **ROBERT THOMSON & CO.,** 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write **J. E. MURPHY,** lumberman, Hepworth station, Ont.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. **TUCKER DAVID,** lumber commission merchant, 202 Eleventh Ave., N.Y.

WANTED—BY YOUNG MAN—SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care **CANADA LUMBERMAN,** Toronto.

PLANING-MILL, SHOP AND DRY KILN

FORMERLY OCCUPIED BY GALL LUMBER Company; power supplied. Railway siding into premises.

N. V. KUHLMAN,
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For Sale

SEMI-PORTABLE SAW MILL AND FOUR hundred acres of land, heavily timbered with birch, maple, elm, hemlock and cedar, in one of the best farming sections of the province. A decided bargain.

Apply to

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WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-quarter and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, I. and II., all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long.

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AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe hirsch and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with

I.C.L., care **CANADA LUMBERMAN,**
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ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

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Communications confidential. References given.

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FOLLOWING LIST OF NEW AND SECOND-hand Boilers, Engines and General Machinery for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.

ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.

THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.

ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.

TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.

ONE 12 x 16 SLIDE-VALVE ENGINE, BECK-ett's make.

TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.

ONE 6 1/2 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.

TWO 5 1/2 x 9 SLIDE-VALVE ENGINES, BECK-ett's make.

ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.

ONE 15 H.P. ENGINE, English make.

ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.

ONE 12 H.P. HORIZONTAL PORTABLE EN-gine and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:—

ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.

TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.

ONE GOLDIE & McCULLOCH THREE-SIDE moulder.

ONE ONE-SIDE MOULDER.

TWO 34-INCH WHEELS BAND SAWING machines.

ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.

ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.

ONE GOOD SHAPER.

SIX GOOD SAW TABLES.

ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.

ONE WOOD FRAME TENONER IN GOOD shape.

TWO UPRIGHT SWING SHINGLE OR heading machines, with jointers.

ONE ALMOST NEW GENUINE "BAILEY" gauge or handle lathe, with countershaft.

ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.

FOUR DOWELL MACHINES.

ONE 20-INCH WATEROUS CHOPPER COM-plete with double elevators, equal to new.

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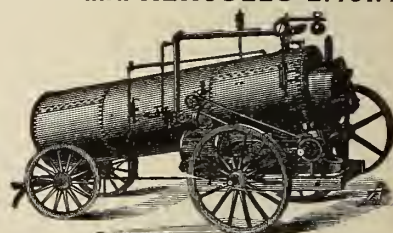
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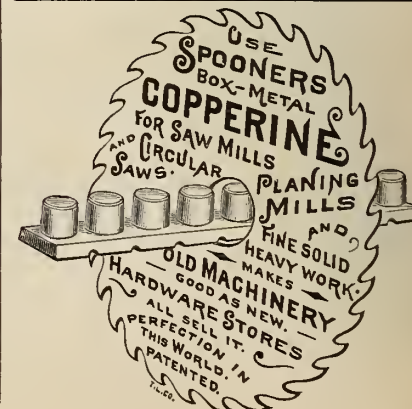
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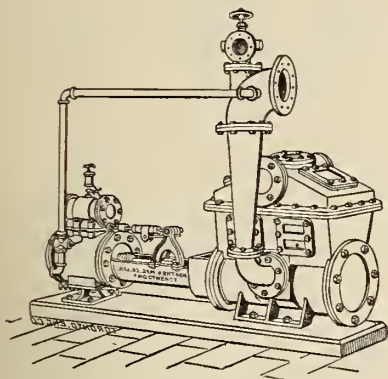
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CONDENSER

Representative Lumber Manufacturers and Dealers

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Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Steam, Circular, 16m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	Stm., Band, Cir., S. 75m, Sh. 60m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	
Waubushene, Ont.	Waubushene	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Pine only	Waubushene mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Anslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glammis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Heath, Taft and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwoods, Whol.	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 40m
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m.
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Toronto	Toronto	DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail	
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdws., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

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SOLICITED

OAK TANNED BELTING

TORONTO
20 FRONT ST EAST
TELEPHONE 475

THE J.C. McLAREN BELTING CO MONTREAL

TRADE REVIEW.

Office of CANADA LUMBERMAN, January 31, 1893.

CURRENT QUOTATIONS.

ELSEWHERE in this issue of the CANADA LUMBERMAN we give a review of the lumber trade of the Dominion for the year 1892.

TORONTO, ONT.

TORONTO, January 31, 1893.

CAR OR CARGO LOTS.

Table listing lumber prices for Toronto, Ontario, including items like 1-4 in. cut up and better, 1-2 in. dressing and better, etc.

YARD QUOTATIONS.

Table listing lumber prices for yard quotations in Toronto, including mill cull boards and scantling, shipping cull boards, etc.

OTTAWA, ONT.

OTTAWA, January 31, 1893.

Table listing lumber prices for Ottawa, Ontario, including pine, good sidings, pine, good strips, etc.

ST. JOHN, N. B.

ST. JOHN, January 31, 1893.

DEALS, BOARDS, SCANTLINGS, ETC.

Table listing lumber prices for deals, boards, and scantlings in St. John.

SHINGLES.

Table listing lumber prices for shingles in St. John.

CLAPBOARDS.

Table listing lumber prices for clapboards in St. John.

FLOORING, DRESSED.

Table listing lumber prices for flooring, dressed, in St. John.

MISCELLANEOUS.

Table listing lumber prices for miscellaneous items in St. John.

QUEBEC, QUE.

QUEBEC, January 31, 1893.

WHITE PINE—IN THE RAFT.

Table listing lumber prices for white pine in the raft in Quebec.

RED PINE—IN THE RAFT.

Table listing lumber prices for red pine in the raft in Quebec.

OAK—MICHIGAN AND OHIO.

Table listing lumber prices for oak in Quebec.

ELM.

Table listing lumber prices for elm in Quebec.

ASH.

Table listing lumber prices for ash in Quebec.

BIRCH.

Table listing lumber prices for birch in Quebec.

TAMARAC.

Table listing lumber prices for tamarac in Quebec.

STAVES.

Table listing lumber prices for staves in Quebec.

Merchantable Pipe, according to qual. and sp'ct'n—nominal. \$330 \$350

DEALS.

Table listing lumber prices for deals in Quebec.

BOSTON, MASS.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing lumber prices for eastern pine in Boston.

WESTERN PINE—BY CAR LOAD.

Table listing lumber prices for western pine in Boston.

SPRUCE—BY CARGO.

Table listing lumber prices for spruce in Boston.

LATH.

Table listing lumber prices for lath in Boston.

SHINGLES.

Table listing lumber prices for shingles in Boston.

OSWEGO, N.Y.

WHITE PINE.

Table listing lumber prices for white pine in Oswego.

SIDING.

Table listing lumber prices for siding in Oswego.

IX12 INCH.

Table listing lumber prices for ix12 inch in Oswego.

IX10 INCH.

Table listing lumber prices for ix10 inch in Oswego.

IX4 INCHES.

Table listing lumber prices for ix4 inches in Oswego.

IX14 INCHES.

Table listing lumber prices for ix14 inches in Oswego.

Table listing lumber prices for 6, 7 or 8, mill run, mill culls out.

Table listing lumber prices for 6, 7 or 8, drsg and better.

Table listing lumber prices for XXX, 18 in. pine.

Table listing lumber prices for Clear butts, pine, 18 in.

Table listing lumber prices for XXX, 16 in. pine.

Table listing lumber prices for No. 1, 1 1/4.

Table listing lumber prices for No. 1, 1 in.

Table listing lumber prices for No. 2, 1 1/4.

Table listing lumber prices for No. 2, 1 in.

Table listing lumber prices for No. 3, 1 1/4.

Table listing lumber prices for No. 3, 1 in.

Table listing lumber prices for No. 1, 1 1/4.

Table listing lumber prices for No. 1, 1 in.

Table listing lumber prices for No. 2, 1 1/4.

Table listing lumber prices for No. 2, 1 in.

Table listing lumber prices for No. 3, 1 1/4.

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Table listing lumber prices for No. 2, 1 1/4.

Table listing lumber prices for No. 2, 1 in.

Table listing lumber prices for No. 3, 1 1/4.

Table listing lumber prices for No. 3, 1 in.

Advertisement for The Whaley Lumber Co., Limited, featuring contact information and product details.

Advertisement for CARL GARTNER, Agent for Canadian Wood Goods, featuring contact information and product details.

Auction Sale —OF— TIMBER LIMITS, MILLS and Water Privilege

THERE WILL BE OFFERED FOR SALE BY
Public Auction, at the Snowden House, Peter-
borough, Ont., on

WEDNESDAY, 15TH OF MARCH, 1893

at Two o'clock, p.m., the following valuable
and desirable

MILL PROPERTIES

situate at Lakefield, Ontario, nine miles from Peter-
borough, on a branch of the Grand Trunk Railway,
namely:—

(1) Saw Mill equipped with Yankee Gang, Circular
and Gang Lath Saws, Shingle Saws, etc., capacity
seventy thousand feet per day, or ten million feet dur-
ing the season. In connection with this is a piling
ground sufficient for piling twelve to fifteen million
feet, tracked throughout, brick boarding house, stables,
warehouses, grain elevator and office.

(2) A Woollen Mill 52 x 81, three and a half storeys,
with boiler and picker house.

(3) Planing Mill.

(4) Electric Light Station, Canoe Factory and Black-
smith Shop.

(5) Flour Mill with twenty thousand bushel elevator,
roller process, capacity seventy-five barrels per day.

(6) Vacant Water Lots.

The water power is unexcelled, being supplied by a
dam belonging to the Dominion Government under
perpetual lease. The head is from ten to fifteen feet.

The mills and factories, other than the saw mill and
its appurtenances, produce a rental of \$2,400 per an-
num.

Also the following desirable

TIMBER LIMITS

all situate in the County of Peterborough, namely:—

(1) In the Township of HARVEY, thirty square
miles, timbered with pine, cedar, hemlock, tamarac,
oak and other woods.

(2) In the Township of BURLEIGH, southern di-
vision, eight and a half square miles; northern division,
thirty and a half square miles, timbered with the same
woods.

(3) In the Township of ANSTRUTHER twenty-
nine square miles timbered with the same woods.

These limits are all under license from the Crown
Lands, Department of Ontario, and are conveniently
situated with respect to improved streams and short
hauling.

TERMS OF SALE:—Twenty-five per cent. pay-
able at time of sale, twenty-five per cent. in one month
thereafter, and the balance in six months from date of
sale with interest at six per cent. per annum.

For further particulars apply to

J. F. LILLICRAP,
Manager of Lakefield L. & M. Co.,
Lakefield, Ont.

or to A. P. POUSETTE, Q.C.,
Peterborough, Ont.,
Vendors' Solicitor.

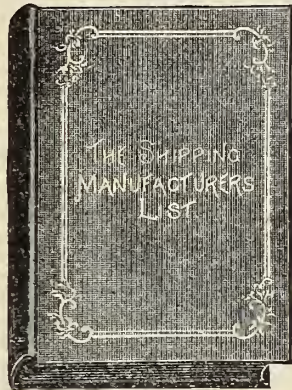
SAW MILL AND TIMBER LIMITS For Sale.

THE UNDERSIGNED OFFERS FOR SALE
his Mill Property, situated in the town of Peter-
boro, known as the Point St. Charles saw mill, together
with piling grounds, pond, booms, chains, anchors,
ropes, horses, harness, wagons, sleighs, shanty and
driving outfits. Also, the Galway limits and about
15,000 pieces of logs on Nogeys Creek and Swamp
Lake, composed of pine, cedar and hemlock. For all
information apply to

A. McDONALD,
Point St. Charles,
Peterboro, Ont.

THE SHIPPING MANUFACTURERS .. LIST ..

ARE YOU IN IT



IF NOT WHY NOT

It will contain a full list of articles manufac-
tured in Canada only. The article will locate
the manufacturer.
Send in a list of your products if you have
not already given one to canvassers.

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Montreal Office: Desbarats & Co., 73 St. James Street.

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CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS
AND SASH AND DOOR FACTORIES
OF CANADA.

As announced in the last issue of the LUMBERMAN, we are now open to receive
subscriptions for the above Directory of the lumber trades. No effort is being
spared to make this publication thoroughly complete and reliable in every detail, and
it is hoped that all LUMBERMAN subscribers will fill in the following subscription
blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF

THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING
MILLS AND SASH AND DOOR
FACTORIES OF CANADA : 1893

Please supply.....with.....copies of the
above Directory as soon as issued, for which.....agree
to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, etc., are
earnestly requested to furnish information asked for in following blank and mail
same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank :

Power, style and capacity of mill:
.....
Class of manufacture:
.....
Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank :

Wholesale or Retail: Class of stock handled:
.....
Post Office: Shipping Point:

Owners of planing mills, sash, door and blind factories, will please fill in following blank :

Power and style:
Class of manufacture:
.....
Post Office: Shipping Point:

(Signed)

.....P.O.

Province.....

Address all communications to

DIRECTORY DEPARTMENT,
CANADA LUMBERMAN,
TORONTO, ONT.

F. E. DIXON & GO.

MANUFACTURERS OF

Star Rivet LEATHER BELTING

70 KING ST. EAST

WRITE FOR
DISCOUNTS

Toronto

DONOGH & OLIVER



WHOLESALE
DEALERS IN

LUMBER

OFFICE

Nos. 213, 214 and 215

Board of Trade Building

Toronto, Ont.

Do You Lack Steam? We Can Help You THE CANADIAN HOLLOW BLAST GRATE

A new and novel application of a principle centuries old. Step into the nearest blacksmith shop and see it in operation on a small scale.

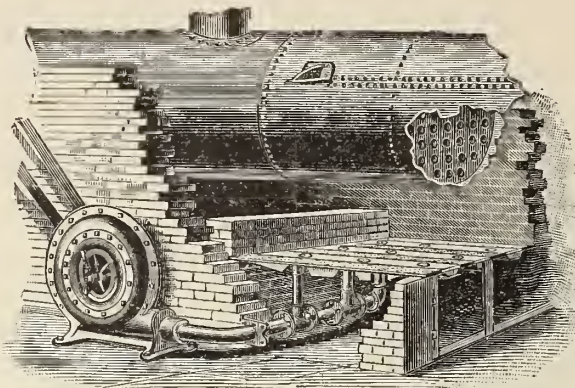
The Hollow Blast Grate supplies the furnace fire with a blast of hot air sufficient at all times to insure the rapid and perfect combustion of fuel of every sort.

It is the only appliance that steams successfully with green or wet sawdust, tanbark or other refuse and waste.

It alone has solved the problem of steaming with the fine, compact dust of the band mill.

Regardless of the character of your fuel, we can greatly increase the volume of steam generated in your boilers.

IT COSTS YOU NOTHING TO TRY THEM
WE GUARANTEE SATISFACTION OR NO SALE



Furnace Fitted with Hollow Blast Grates and Apparatus.

HUNDREDS OF TESTIMONIALS LIKE THE FOLLOWING:

"Your Hollow Blast Grates have given entire satisfaction. They give us all the steam we want and effect a great saving in valuable fuel. We cannot recommend them too highly."—MICHIGAN STAVE & BARREL CO., LANSING, MICH.

"Their work is simply marvellous. They saved us the expense of an additional boiler."—DETROIT HOOP & STAVE CO.

"After nearly two years' trial of your Hollow Blast Grates under 20 of our boilers we have experienced perfectly satisfactory results. We do not think any person or firm who lack steam can afford to be without them."—W. T. YOUNG & CO., Steam Gang Saw Mill, CLINTON, IA.

"We are greatly pleased with your Grates. We can make all the steam we require, no matter how wet our fuel is. For burning sawdust they are unequalled."—STEINHOFF & GORDON, WALLACEBURG, ONT.

"I do not consider a saw mill complete without Blast Grates."—AARON GORDON, DRESDEN, ONT.

"I put in a set of your Grates a year ago, and they pleased me beyond expectation. I spent hundreds of dollars in various contrivances to burn elm sawdust, but without success. I now burn all my dust. I can keep up better steam pressure than I could before with dry wood."—C. E. NAYLOR, ESSEX, ONT.

FOR INFORMATION, PRICES OR ESTIMATES, ADDRESS

THE CANADIAN HOLLOW BLAST GRATE CO., ESSEX, ONT.

A. ALLAN, President

J. O. GRAVEL, Secretary-Treasurer

J. J. MCGILL, Manager

F. SCHOLES, Managing Director



Canadian Rubber Company

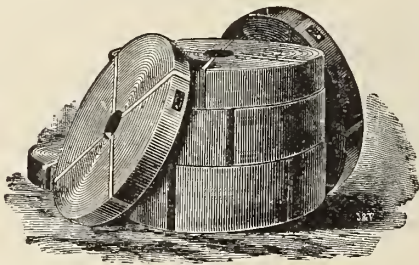
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SUPERIOR QUALITY
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FORSYTH
Seamless Rubber Belting
Seamless Tube Hose

These Patents we control for Canada

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Western Branch: CORNER YONGE AND FRONT STREETS

TORONTO

J. H. WALKER, - - Manager



THIS IS 1893 ... WHAT CAN WE DO FOR YOU?

OUR STOCK OF

NEW AND SECOND-HAND MACHINERY FOR SAW AND PLANING MILLS

IS BOTH LARGE AND VARIED.

LUMBERMEN who contemplate making changes or additions to their plant before next cutting season should communicate with

H. W. PETRIE, TORONTO, ONT.

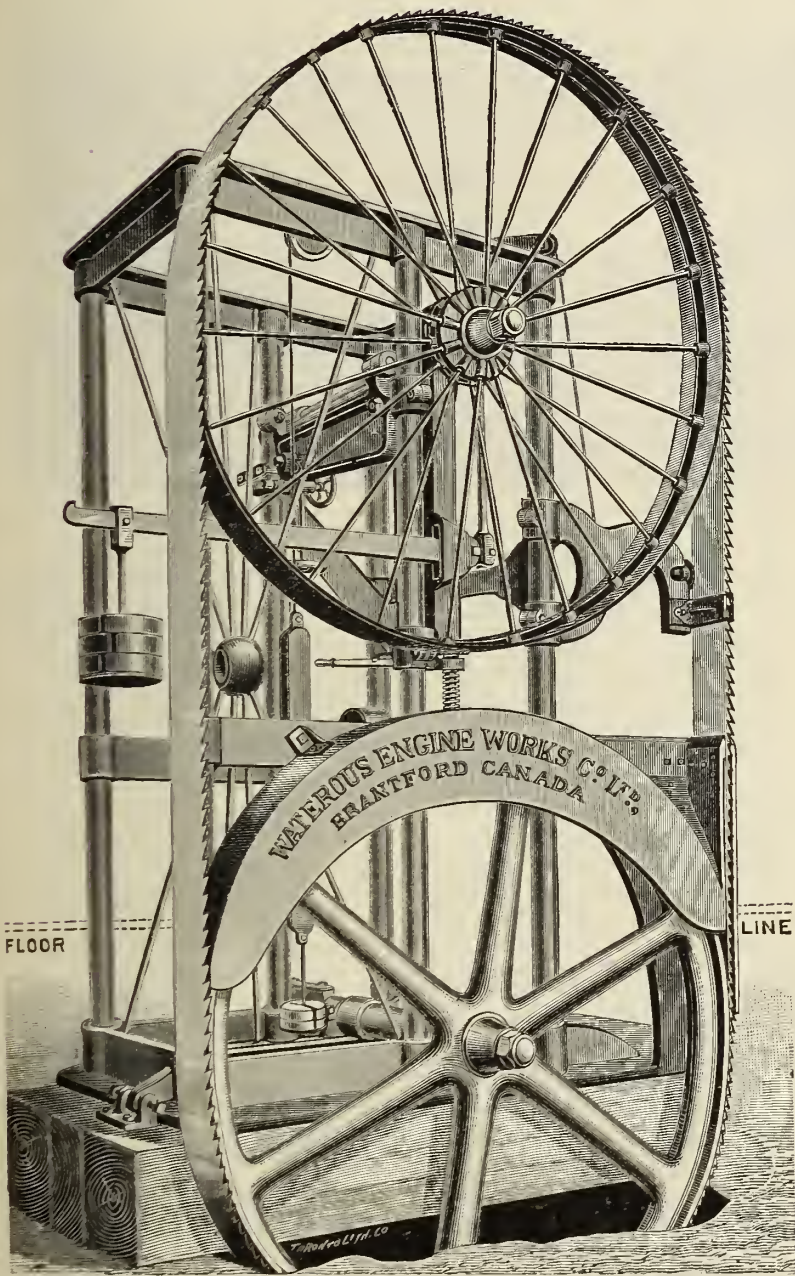
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WE HAVE WASTED
WE ARE WASTING
WE WILL WASTE..

**OUR GRAND
HERITAGE
OF PINE..**

UNLESS THE BAND
SUPPLANTS
THE CIRCULAR..

A 14-GAUGE BAND SAW SAVES OUT OF AN 8-GAUGE
CIRCULAR'S SAWDUST PILE 5 ONE-INCH BOARDS ON
EVERY 32 CUT.



You'll Regret

if you start next
season without a

BAND MILL

EVERY YEAR'S STOCK YOU WASTE REDUCES THE PROFIT FROM
YOUR TIMBER LIMIT BOUGHT AT SUCH A HIGH PRICE

THE CHANGE TO THE
BAND IS INEVITABLE

Make it Now

ORDER YOUR MILL EARLY BEFORE THE RUSH AND
AVOID DISAPPOINTMENT

HAVING DECIDED TO CHANGE, INVESTIGATE THE MERITS OF OUR BAND MILL

"None Surpass the Waterous"

In Quantity and Quality of Cut

Rigidity and Steadiness under Motion

True Wheels

Sensitive Tension

Fast Feed

No Breakage of Saws

Fewer Detentions for Adjustment or Repairs

Nor in our Filing-room Tools

SEND FOR NEW BAND MILL CIRCULAR AND 5/32 BOOKLET

WATEROUS

Brantford,
Canada.



"BUILD TO-DAY THEN,
STRONG AND SURE,
WITH A FIRM AND
AMPLE BASE."
— Longfellow.

DO YOU?
WISH THUS TO BUILD
an advertisement
in the
**CONTRACT-
RECORD,**
TORONTO
will bring you
tenders from the
best contractors.

NEW & 2ND
ILLUSTRATED **MACHINERY**
CATALOGUE **H.W. PETRIE**
FREE TORONTO, CANADA

USE **SPONNER'S**
HONOR BRIGHT
GOPPERINE

BEST MACHINERY BOX-METAL EXTANT.
CANADIAN MADE & STUMPS THE WORLD.
QUALITIES TO DO ALL YOUR WORK.
HARDWARES ALL SELL IT
COOL BEARINGS NO HOT BOXES
EASY AS AN OLD SHOE
GENUINE SAFEGUARD
FOR ENGINEERS
HIGH CLASS
METAL

Patented Solid Web Wood Split Pulley

Alexander Thomson, Bamboo and Art Furniture
Manufacturer, Hamilton, writes:

"I find your Wood Split Pulleys give entire satisfaction. They do not slip, and are very handy to put on. I have had from twenty to twenty-five years' experience in pulleys, and I find none so satisfactory as yours, and am sure they will meet with success."

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Wood-working Machinery of all kinds
GALT, ONT., CANADA

Napanee Cement Works, Ltd.
NAPANEE MILLS, ONT.
MANUFACTURERS OF
STAR BRAND OF PORTLAND CEMENT
NONE BETTER; AND OF
NAPANEE CEMENT
PARTICULARLY ADAPTED FOR DAMS, SMOKE-STACKS, FOUNDATIONS, CULVERTS, CISTERNS, CELLARS, ETC. LARGELY BEING USED IN THE ST. LAWRENCE RIVER CANAL. ENDORSED BY LEADING RAILWAYS AND CONTRACTORS.

F. REDDAWAY & CO.
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BREAKING STRAIN 6 IN. "CAMEL" HAIR BELT ----- 14,181 lbs.
" " 6 IN. ENGLISH OAK DOUBLE LEATHER -- 7,522 "

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Send for sample of our new SAWMILL BELT

H. G. ROSS & CO.
Real Estate, Fire and Life Insurance
SHIPPING AND GENERAL COMMISSION AGENTS
... TIMBER LIMITS AND FARMING LANDS A SPECIALTY. ...
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CABLE ADDRESS: "ROSS" **NEW WESTMINSTER, B.C.**
CORRESPONDENCE SOLICITED ... Box 273

A PARTNER'S DEATH

IN every partnership there are two factors of great importance—the managing brain and the capital employed—and if death removes either the business must suffer. It often happens that the brains belong to one man and the capital to another. If the manager dies the capital is worth less than before, and if the capitalist dies and his capital is withdrawn, the manager is crippled. It is clear that each has an insurable interest in the life of the other, because the profits of each depend in part upon the life of both. The firm should, therefore, insure for the benefit of the business on either the ten-twenty plan or the modified natural premium life of the **Manufacturers'**. These are the plans best adapted to suit the requirements of such cases. Let this statement be tested by comparison.

The Manufacturers' Life Ins. Co.
Corner Yonge and Colborne Sts., Toronto

The Sturtevant System Heating and Ventilating Applicable to all classes of Buildings

Progressive | Lumber | Dry-Kilns

STEEL PLATE
PLANING MILL EXHAUSTERS

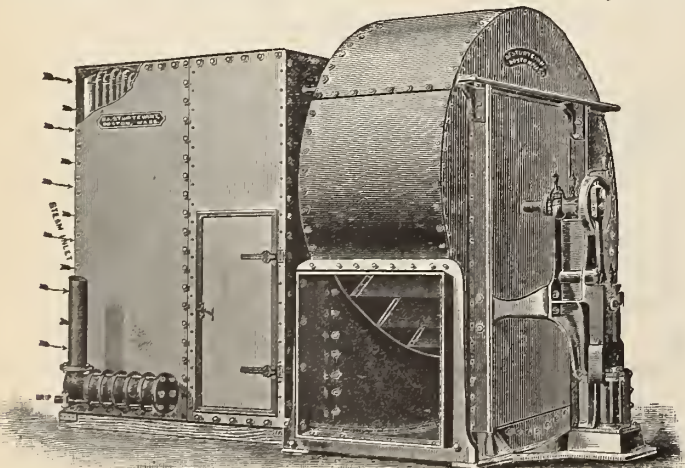
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A. R. WILLIAMS, Toronto and Montreal, Gen. Agent for the Dominion



The Sturtevant Steam Heating and Drying Apparatus

GALT MACHINE KNIFE WORKS



MACHINE KNIVES

OF EVERY DESCRIPTION FOR

Planing, Moulding and Stave Cutting

Send for Price List

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J. W. MAITLAND — H. RIXON

J. G. AINSIE — W. STODART

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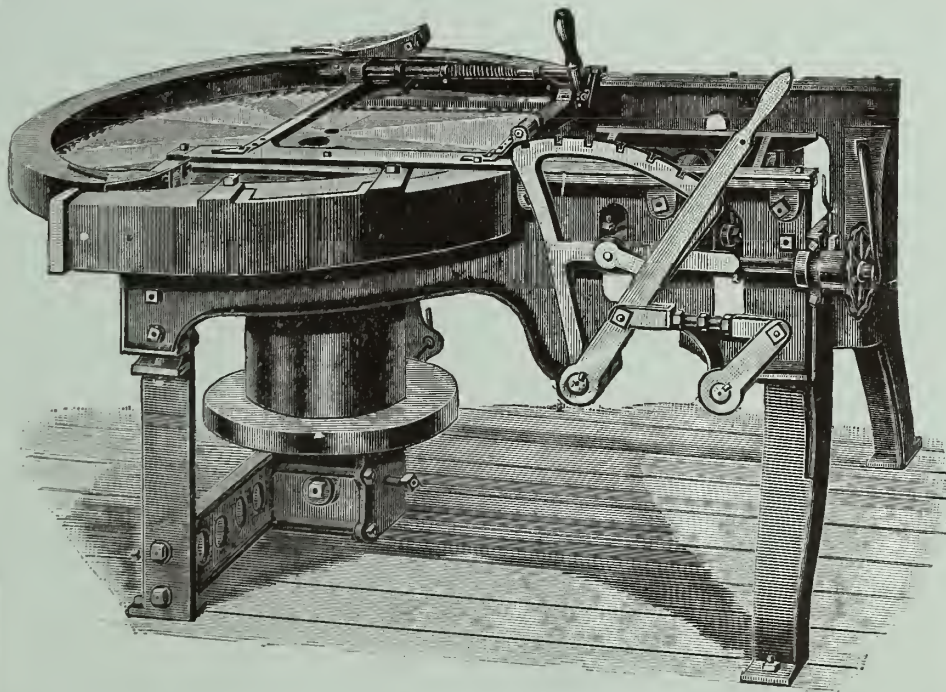
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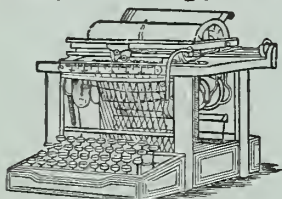
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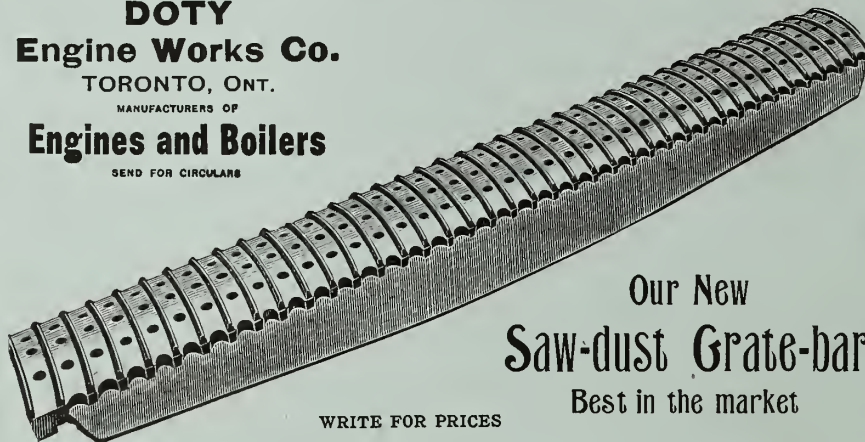
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VOLUME XIV. }
NUMBER 3.

TORONTO, ONT., MARCH, 1893

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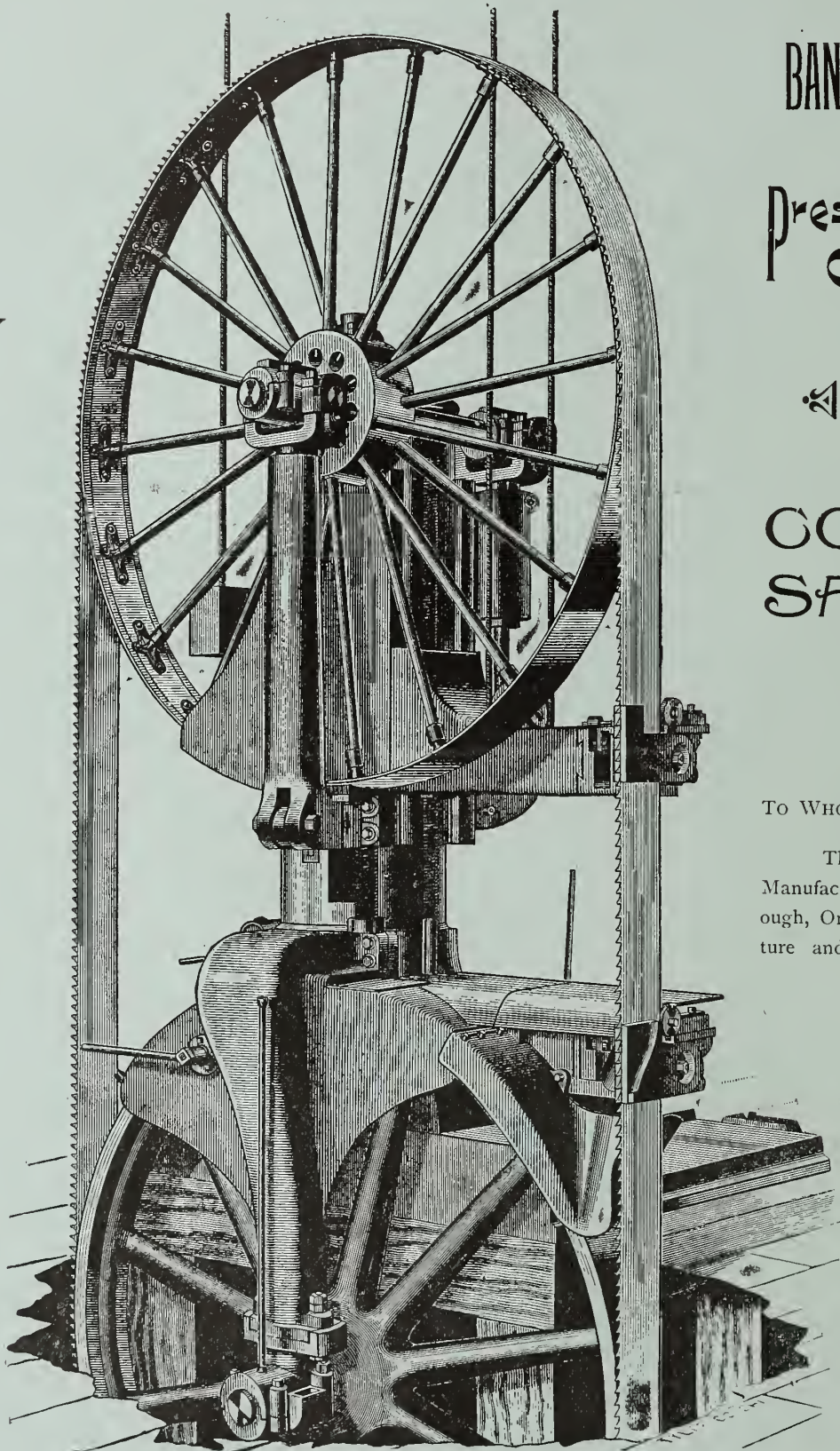
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VOLUME XIV. }
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SYMPOSIUM ON THE LOG DUTY.

SHALL LOGS BE FREE ?

FIRST PAPER.

THE reference made by the Finance Minister in his budget speech as to the export duty on sawlogs has caused a feeling of great uneasiness among the lumbering community; not so much from a fear of anything being done in the matter as from the tone of uncertainty which it gives to the security of the lumberman's property.

It is only right that a clear statement should be made giving the views of the majority of the men who have very large interests at stake in this business. Sometime ago a Toronto daily paper sent a representative up to the Georgian Bay to interview mill owners and others and ascertain their views on the question of the re-imposition of the log export duty. Many of the large manufacturers were not seen at all and the men who did express their views on the question were for the most part small mill owners who had worked out their timber, and who were anxious for the re-imposition of the log export duty in order that they might be able to acquire logs at a low figure. But these very same men would be the first to want the export duty taken off after they had acquired standing timber, in order that they might have the largest possible market for their timber, whether in the form of sawlogs or lumber. Apparently there is now an impression abroad that the manufacturers of the Georgian Bay are anxious to have the duty on sawlogs re-imposed, and that those on the Ottawa valley alone are opposed to its re-imposition. This is far from the facts. Lumbermen all over Canada are opposed strongly to the export duty being again levied, or to any talk of it, with the exception of those who have no limits and who can therefore hardly be called lumbermen.

If the export duty on sawlogs sent to the United States were re-imposed, the import duty on lumber shipped thither, now \$1 per M. feet, would by the provisions of the McKinley Act be at once doubled, or raised to \$2 per M. feet, and as the price paid for Canadian lumber is governed by the United States market, Canadian lumber would be worth \$1 per M. less, entailing a loss of over a million of dollars annually, in the shape of additional duty, paid into the United States treasury. This state of things could not last, and the result would be that many lumbermen now working their limits would be forced to discontinue doing so, thus throwing a large number of men out of work and depriving the settlers in the back country of the only market open to them for the produce of their farms.

In an article in the LUMBERMAN of last month Mr. Little stated that the American buyer paid the import duty on lumber collected by the United States, when he purchased Canadian lumber. This is hardly borne out by the facts. Mill culls, for instance, which are to a large extent what might be termed a standard article, are to-day selling in Bay City at \$7 per M., and on the Georgian Bay they only fetch \$6, while the freight rates to the eastern markets are the same.

If Mr. Little's theory were correct the Canadian manufacturer should get the same price for his lumber as the American now does, but as the American buyer remarks: "Mill culls from Bay City cost me \$9 in Buffalo. I will buy Canadian mill culls if I can get them at the same cost, viz., \$6 at the mills, to which add freight \$2, and duty \$1, bringing it up to \$9 at Buffalo. This applies in exactly the same way to all other grades of lumber."

How badly the American lumberman must have our lumber, and have it now, can be judged from the fact

that last year the States of Michigan and Wisconsin alone produced about 9,000,000,000 feet of pine lumber, and that the total export of forest products of all kinds for the whole of Canada does not exceed 2,000,000,000, about one-half of which went to the United States. The Canadian pine is such a mere fraction in the American market that it is a matter of small importance whether it goes there or not, and it cannot possibly affect the price of lumber on that market.

After limits are once sold by the Crown the quicker they are worked the better for the country, because when work commences fire almost invariably follows and destroys much good timber, causing severe loss to the country by loss of dues, as well as to the lumberman in the destruction of his timber. Many experts state that there has been more timber burnt on the north shore of Lake Huron than has been cut.

There is no doubt that those United States mill owners who have come to this country and invested their money in good faith would be much incensed and undoubtedly obtain legislation at Washington to add the export duty on logs to the import duty on lumber, thus paralyzing the whole lumber business of the Dominion. On the other hand, everything now points to a strong probability on the part of the United States taking off the present import duty on lumber, and as soon as that is done almost all Canadian logs will undoubtedly be manufactured in Canada, as on the same basis it will be cheaper to manufacture here (in Canada) than to tow to the other side.

The loss of the sawing of logs is not so severe as some people appear to think. On an average it costs \$6 to take logs from the stump to the water when they are ready for sawing or towing. Add to this \$3 for timber and dues and the total is \$9, the approximate cost of average logs on the Georgian Bay. It will cost from \$2 to \$2.50 to saw, pile and load this lumber, which is the only portion of the operation lost to Canada, by towing the logs out of the country instead of sawing them, or less than one fourth of the expense of the operation.

As a matter of fact the only place that has been apparently hurt by taking off the export duty is Midland, but all of Midland's trouble is not directly traceable to the removal of the export duty. The mill of the Ontario Lumber Company has been closed down because they find it more convenient to manufacture their stock at the French river than to tow it down the Georgian Bay to Midland. Peters & Cain have stopped sawing. Another firm has not cut any stock this year, as they found it more profitable to sell their logs and get paid in cash for them than to saw them and sell their lumber on time. The mill belonging to the Saginaw Salt & Lumber Company has been closed, and they towed their logs over to Saginaw and manufactured them there, but this is the only mill of the lot that has stopped sawing owing to the export duty being taken off logs, and it is more than doubtful whether the re-imposition of the duty would induce the owners to again run this mill where it now is. There is also one mill shut down at Parry Sound owing to its owners having sold their timber. As against this it is to be noted that one of the largest purchases of pine recently made was that by Merrill, Ring and Co., of a large property on the Magnetawan River. This concern has increased the capacity of this mill and is sawing all its timber on this side, and they are of opinion that many other American purchasers will soon do likewise. This firm has also within the past month purchased another mill on the Magnetawan River in order to increase their sawing capacity, and probably with an eye to the import duty being removed in a very short time by the United States.

The fishermen of the Georgian Bay are complaining that the bark of the logs is destroying the fish. We are inclined to doubt this, but if it is true the difficulty would not be got over unless limit holders were also prohibited from towing logs from the north to the south end of the bay, which, while it might prevent bark from getting into the lake, would not suit Penetanguishene, Midland, Victoria Harbor and Waubaushene, all of which draw their stocks from the north.

The re-imposition of the log export duty by Canada would undoubtedly result in retaliatory measures by the United States, in addition to doubling the duty on lumber, and the whole of the large mills on the Georgian Bay, which are entirely dependent on the United States for their market, would simply have to shut down, as there is only a small margin in manufacturing lumber to-day, and an additional import duty on lumber would turn this into a loss. In fact there is at present a bill before the United States Congress, introduced by Congressman Weedock, of Michigan, providing that the import duty be increased on lumber imported from any foreign country which collects an export duty on sawlogs by the amount of such export duty. There appears to be every probability of this bill becoming law, and in that event it is easy to see what the result would be to the Canadian lumber business. If Canada imposes an export duty on sawlogs, ipso facto, under the McKinley Bill the import duty is \$2 per M.; if that export duty on sawlogs is \$2 per M., under the Weedock Bill the import duty on lumber would be \$4 per M., which could have no other result than to close all the mills in Canada manufacturing for the American market.

If the raw material of lumber is to be taxed so as to prevent its export from the country, why should other products not also be taxed on the same principle? For years large quantities of square and waney timber have been shipped to England, to be there sawn into boards and planks, but it has never been suggested to put an export duty on this class of timber to force its being manufactured here. Why not place an export duty on wheat sufficient to force its being ground in Canada, and thus give large employment to flour mills, barrel factories and the weaving of seamless cotton bags? The reason is simply that it would bring down the value of wheat and make it unprofitable for the farmers to grow it, and the case of lumber is exactly similar.

The imposition of an export duty would shut off the only market for at least seventy-five per cent. of all the lumber manufactured on the Georgian Bay and a very large proportion of that sawed on the Ottawa, or in other words close half the mills of the country and throw thousands out of employment. To produce the lumber now exported to the United States an expenditure of \$6,000,000 has to be made each winter in wages and supplies, a large amount of which goes to enrich the country stores and farmers in the lumbering districts. Any stoppage of the operations would bear heavily on the storekeeper, the farmer and the shantyman. The former could not sell their goods and farm produce, whilst the latter could find no work during the long winter months.

The fact of the matter is that at present the lumber business is in a good condition, and all it asks is to be left alone and not be interfered with, and while it may seem a loss to allow these logs to go out of the country unmanufactured, if the matter is left to itself there is every indication that the difficulty will be solved satisfactorily to everyone by the United States Government removing the import duty on lumber. As soon as this is done the logs will be manufactured in Canada.

With regard to the contention that the Canadian shipping business is being ruined by the logs being

exported from the country instead of being sawed and then shipped out, the cost of towing logs across the lake is \$1.25, and the freight on lumber varies from \$1.25 to \$2.00. The Canadian boat competes with the American boat for the carrying of the lumber and the towing of the logs, both being open to boats of either nationality, and the only possible loss being the difference between the freight bill and the tow bill.

If, on the other hand, the Canadian Government imposes an export duty on logs, the import duty on lumber to the United States rises proportionately, and the timber would be left standing in the woods, as it could not be exported in the shape of either logs or lumber, but the whole lumber business, the most important manufacture of the country, is completely paralyzed, and the forests stand idle for years a prey to the fiend—a forest fire—which has already destroyed so much valuable property.

A.

SECOND PAPER.

THIS is not the trifling matter many suppose it to be of allowing a few sawlogs to be exported free of duty to Michigan for the use of the people of that State, now that the lumbermen have about gleaned it of pine timber; it is whether the Government of Canada is to any longer continue to give a bonus equal to \$2 per M. to American millmen to encourage them to transfer the manufacture, shipping, etc., of our forest products from Canada to the United States.

A trade which, while the export duty on sawlogs was the same as the American import duties on our sawn lumber, amounted to a mere interchange of about a like quantity of sawlogs, has now, under the special advantages granted Americans, become of vast and, in its evil effects, alarming proportions. While the exact amount is not yet known, it is reported that nearly 200,000,000 feet of Canadian pine sawlogs were towed over from the Georgian Bay and Lake Huron districts to stock Michigan sawmills last year, an amount equal to double the whole exports of sawn lumber from Quebec to the United States; and it is now computed that the sawlogs to be exported free of export duty this year will amount to fully 400,000,000 feet, or about as much as the entire cut of deals and lumber manufactured by the mills in the Ottawa district last year, and four times the whole exports of all kinds of sawn lumber from Quebec to the United States, every foot of this vast amount to go out of our country to the United States free of any duty whatever, while every foot of our sawn lumber must pay a duty when entering that country. Well may our American friends boast that "they will make the waters of the lakes smooth towing over Canadian sawlogs to stock Michigan sawmills."

That we of Quebec must rely for the future more upon the spruce industry than the pine is evident from the growing scarcity of pine timber, and it consequently behooves us to see that this industry is not needlessly sacrificed. The Crown Lands reports show us that whereas the proportion of spruce to pine taken from Government lands twenty years ago was little over ten per cent., and ten years ago about twenty-five per cent., it is now about forty per cent., which percentage must of necessity increase from year to year as pine timber becomes more difficult to obtain; and as our pine timber is chiefly shipped in the form of timber and deals to the English market, where it has no competitive wood of like value and is little affected by the American lumber duties, the spruce of Quebec has not only to compete in the English and other foreign markets with similar wood from the North of Europe, but also in the the United States markets with the lower qualities of pine lumber manufactured in Michigan from Canadian sawlogs which by this vicious policy are allowed to be exported to the United States free of duty and there manufactured into lumber at a bonus to the Americans of \$2 per M. so long as the logs go free and the Americans exact a duty of this amount on our spruce lumber. It is this condition which in a measure accounts for the difference between the prices obtained by the province of Quebec for spruce limits and the province of Ontario for pine limits at the recent sales of timber limits.

The Americans have now no interest in making Canadian lumber free, for in getting the logs free they not only get free lumber but also the manufacture and ship-

ping in their own country, and one can readily conjecture what effect this must have on the lumber industry of Quebec if the Americans can supply themselves, which they appear determined to do, and will no doubt continue to do, so long as we are senseless enough to permit them, with pine sawlogs free of all duty on either side of the line they will not care to purchase much of our spruce lumber on which they would have to pay \$2 per M. duty when entering their country, unless at a price so low as to be ruinous to our manufacturers.

It is no satisfactory answer to the foregoing to say that the American government, having now reduced the import duty on pine lumber from \$2 to \$1 per M., and that if we re-impose the export duty on sawlogs the rate of \$2 becomes restored to pine lumber imports; for the American government did not reduce the import duties on pine lumber on our account, nor on account of our removal of the export duty on sawlogs, which might be inferred from the statements made on the floor of Parliament by a gentleman engaged in the business of exporting Canadian sawlogs to the United States, but the duties on pine lumber were reduced at the almost universal demand of the people of the United States for absolutely free lumber; and the restoration of the export duty on sawlogs (which every candid American, even many of those who are engaged in towing over Canadian sawlogs to their mills in the United States, admits to be only fair under the circumstances), by increasing the price they would then have to pay for pine lumber, would at once result in an imperative demand by the people of the United States to accept our lumber free in exchange for free logs. The twaddle reiterated by those interested in getting our logs free of export duty, and who unfortunately for us are also interested in keeping the American import duties on pine lumber as high as possible, about the Americans retaliating by further increasing the import duties on pine lumber, which they must now have from us in increasing quantities owing to the decreasing supplies in their own country, or that it would irritate them or any one except those who are "robbing" us of our timber, is simply nonsense.

Nor does Canada stand to lose anything by the re-imposition of the export duties, as some are so urgently insisting it would by at once restoring the import duty on pine lumber to \$2 per M., the same as that exacted on our spruce lumber; for the altered conditions, instead of reducing the price of pine lumber here, as many ignorantly imagine it would do, would have just the contrary effect of increasing the value of our pine lumber about \$1 per M. feet; for, if the Americans have to pay \$2 per M. export duty on the sawlogs they must of necessity increase their prices on the lumber made from these logs to this amount, or what would have about the same effect, cease to manufacture, which would at once increase the price by lessening the production.

But, whatever may be the resulting effects, the present policy of our Government on this subject being, in so far as Canadian interests are concerned, destructive to our forests—destructive to our manufacturing—destructive to our shipping—destructive to our labor, ruinous and unpatriotic in every aspect, must at once be completely changed if our country is to derive any substantial benefit from our forest resources.

In asking this we are only asking even-handed justice. If the Americans admit our spruce and other lumber free, they can then have our logs free, but not otherwise, and even then they have advantages which we well know from past experiences they would be chary in granting us under like circumstances.

WILLIAM LITTLE.

THE DISCOVERER OF STEAM POWER.

INVENTION, a journal devoted, as the title would indicate, to the subject of inventions and inventors, tells the pathetic story of Solomon Caus, a Normandy scholar, who lived in 1576 and thereafter, and wrote many scientific works, all of which led up to his conception of an idea which resulted in the transformation of his whole life into a tragedy. After pestering the king and the cardinal of Paris, he was ordered to be taken to Bicetre—the mad house—and there shut up. The was done. They had just one way with mad people in those days. They shut them in iron cages and fed them through the bars like wild beasts. They did this

to Solomon Caus. For a long time he stood behind those bars all day and called to those who would listen, and to them repeated the story he had told the cardinal. He became the jest of the place. Some of them gave him writing materials, and then, amid the misery of his surrounding, he wrote down his ideals and amused his jailers so much the more. However, it could not be long before such a life, such surroundings, would shatter any brain. In time Solomon Caus was as mad as every one believed him.

It was in 1624 that an English nobleman, Lord Worcester, went to Paris and visited Bicetre. As he was passing through the great court, accompanied by the keeper, a hideous face with matted beard and hair, appeared at the grating, and a voice shrieked wildly, "Stop! stop! I am not mad, I am shut up here most unjustly. I have made an invention which would enrich a country that adopted it." "What does he speak of?" the marquis asked his guide. "Oh, that is his madness," said the man laughing. "That is a man called Solomon Caus. He is from Normandy; he believes that by the use of the steam of boiling water he can make ships go over the ocean and carriages travel by land; in fact, do all sorts of wonderful things. He has even written a book about it which I can show you." Lord Worcester asked for the book, glanced over it and desired to be conducted to the writer. When he returned he had been weeping. "The poor man is certainly mad now," he said, "but when you imprisoned him here he was the greatest genius of the age. He has certainly made a very great discovery." After this Lord Worcester made many efforts to procure the liberation of the man, who, doubtless, would have been restored to reason by freedom and ordinary surrounding, but in vain; the cardinal was against him, and his English friends began to fancy that he himself had lost his senses, for one wrote to another, "My lord is remarkable for never being satisfied with any explanations which are given him, but always wanting to know for himself, although he seemed to pierce to the very centre of a speaker's thoughts with his big blue eyes that never leave theirs. At a visit to Bicetre he thought he had discovered a genius in a madman, who declares he would travel the world over with a kettle of boiling water. He desired to carry him away to London that he might listen to his extravagancies from morning till night, and would, I think, if the maniac had not been actually raving and chained to the wall."

Thus, in Bicetre died the man to whom, after his works were published, many people gave the credit of being the discoverer of steam power, and it is said that from the manuscript written in his prison, Lord Worcester gathered the idea of a machine spoken of as a "water commanding engine," which he afterward invented. Historians have denied that Caus died in prison, but there exists a letter written by Marion de Lorme, who was with Lord Worcester at the time of his interview with Caus, which establishes the fact beyond doubt.

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a hole in the middle of one end, which is the place of beginning. Draw the lacing to its middle through this hole, lace each way to the edge and back to the middle again, and you will have a smooth joint.

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VIEWS AND INTERVIEWS.

An Ancient
Scythe.

An Egyptian scythe, dug up on the banks of the Nile in 1890, and said to be as old as Moses, is exhibited among the antiquities in the private museum of Flinders Petrie, London. The shaft of the instrument is wood, set with a row of fine flint saws which are securely cemented in a groove. This discovery answers the oft-asked question, "How did the stone-age man harvest his crops?"

Curious
Vegetable Growth.

A vegetable phenomenon found in the timber limits of Messrs. Booth & Gordon is now on exhibition in Pembroke, Ont., and will be shown at the World's Fair. It consists of a wonderful protrusion or "growth," which grew on the trunk of a birch tree. The trunk below the growth is only of an ordinary size, yet the growth is nine feet eight inches in circumference. This singular growth extends over several feet of the trunk. It is extremely hard and is quite even in surface, although presenting the appearance of a lot of great ropes wound in and out of one another. The bark on the growth is not at all like the bark on the natural tree; but is more like a short-grained bark. The growth extends out somewhat like an open umbrella and then tapers away again at the bottom. There is about a foot of the trunk left on each side of the growth, and the whole weighs over seven hundred pounds. Lumbermen who have been in the woods all their lives say that while they have seen miniature productions of the same kind, they never saw anything like this, so immense are its proportions.

Powers of
Absorption.

The captains of ships which carry bricks, we are told, have to be very careful. An ordinary brick is capable of absorbing a pint of water. So with a cargo of brick in the hold serious leakage may quite well go on undetected, for the water that enters is sucked up as fast as it gets in. Where the danger comes from absorption by the brick is the possibility of the shipowner not knowing that the absorption has taken place and therefore, not being prepared soon enough to stop the leak. The power of absorption, if dangerous in some respects, has its strong points. The man who has the faculty of absorption, whether of means or knowledge, is building up strength. But if he does not give out to some extent that which he has absorbed, his strength will be a source of weakness and injury both to himself and others. It is the old story of the talents. Only those which are put to use add other talents to those already possessed. The talent that is tied in the napkin gains nothing and rebounds upon the owner. The sponge is useful in absorbing water only as it gives it out again for some useful purpose, to take in a fresh supply to be again made use of. We may wreck ourselves and wreck others, if like bricks in the ship hold, our policy is one of individual selfish absorption.

Busy Men.

We have all met the busy, busy man, so busy that he has scarcely time to eat his meals, and sleep is a matter of indifference to him. He is, in his own judgment, burdened with work, and yet, placed alongside of a neighbor who, seemingly, has leisure for many things, he does not get through in any one day more than a tithe of the actual work accomplished by the quiet going neighbor. The difference between the two men is in methods of work. A writer on this line has well said: "There is a vast difference between the systematic, methodical, regular, steady going business man and the one who flies off the handle, and never gets time to properly oil up. The true business man never finds time too precious to waste in frivolous things, but he has always time for a pleasant word for those around him. He works like clock-work, and takes time to get around before he runs down. He keeps his hands busy as well. He never wastes time in long stories and useless talk argument. He works easily and smoothly because he is systematic. He finds time to eat his food with a relish, to sleep and rest, to get acquainted with his wife, and play with his babies. He never says: 'I had no time to attend to that little matter,' because he is punctual to the stroke. He is like a time-piece well regulated.

If he does go on tick he is punctual to the hour. He strikes 'while the iron is hot.' He keeps all his appointments and engagements to the letter, and those with whom he deals know that they can trust and depend upon him. He is a good time-piece, and all men look up to him with confidence, that they will never be too late for the train."

Obeying
Orders.

Everyone does not heed the injunction of Holy Writ, "Servants be obedient to your masters." Sometimes this disobedience is the outcome of a spirit of insubordination, a determination to have one's own way and to resist dictation from others. But with some it is an exercise of personal judgment, believed to be justified by the circumstances of the case, and in the interests of the one served. Nevertheless, it is a violation of instructions from one in authority, and where in one case it might prove beneficial, it might at another time prove disastrous. We have this feature of the case very forcibly illustrated in a story that is told of the Rothschilds. Several years ago these wealthy Hebrews had a large quantity of cotton in New Orleans which they instructed their agents to sell when cotton should reach a certain price. The agent, believing that the price of cotton would go beyond the figure named by his employers, held on till he was able to sell at a price that netted \$40,000 more than he would have got for it if he had obeyed his orders from London. He joyfully informed his employers of his success, supposing they would share his satisfaction at the result. Imagine his surprise and chagrin when he received a reply saying in substance: "The \$40,000 you made by disobeying your instructions is not ours. It is yours. Take it. Mr. X., your successor, starts for New Orleans to-day." It may seem difficult at first thought to understand this action. With the greed for gold that influences many men, and which was a strong characteristic with the Rothschilds, there are perhaps few who would have acted as did these millionaires. But as has been remarked by one commenting on this case, supposing, instead of making the \$40,000 by disobeying instructions, that amount had been lost. That was probably the view taken. It was not because of the gain or loss in this particular instance, but because of the loss of dependence in their employe, and the possibility of results from a future disobedience of instructions. It is always well to follow instructions, for, in that case, no blame for consequences is possible. The printer's rule to "follow copy, if it goes out of the window," is a pretty good rule to adopt in any business, and, if the agent follows instructions, he is safe in the event of any trouble which may be the result.

COOLING A HOT BEARING.

WE found an engineer the other day hard at work over a hot crank-pin. Not an uncommon thing to find by any means, but this engineer declared he had run engines just like this one before, but this engine was the only one of the lot that would give him trouble. Every time there was a considerable change in the load this pin commenced either to develop an ugly pound or to heat, and while it was cured of the pound by relieving the load, the heating of the crank-pin needed more heroic measures. His assistant had a stream of water on it, but he suggested kerosene and plumbago as better and states that it is the only thing that will cool that bearing down without difficulty. It isn't a permanent cure, however. But to judge by what was said there was nothing like kerosene and plumbago for a hot box.

Another engineer that we know of always asserts that the only thing that will cure a bearing that gives him trouble is white lead and cylinder oil mixed. Black lead and plumbago and oil, he declares, is of no earthly use. In fact, he so treats all of his bearings, gives them a coat of white lead and cylinder oil. He says it makes the bearing look, after a little while, just as if it had been running all right for years. He was painting some bearing one day when a hand asked him what he had, and was told white lead and oil. The helper concluded that was just what he wanted to do, a little painting on his own account, so he quietly appropriated the can of white lead and oil at the first opportune moment. That painting job hasn't dried yet, and the engineer doesn't think it ever will, but the helper hasn't ceased to wonder

what was the matter with that paint.

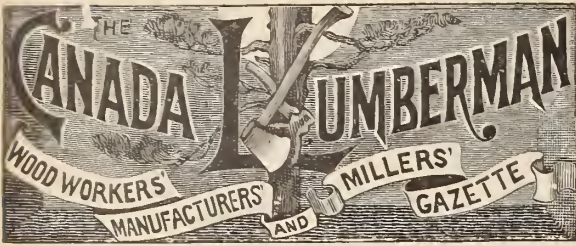
It is a very common thing to find mechanics in mills who will insist that there is nothing like soft soap to cool down a bearing when its gets hot, and most of them keep a barrel of soft soap handy for the hot box that is always showing up. "I can have a room full of smoke from a hot bearing," remarked one, "and when I get up on a step-ladder and pour some soft soap on it that settles that hot bearing." We remember hearing a cotton-mill engineer telling once how he got deceived on this soft-soap question. The bearing was smoking pretty badly when he sent a boy to the soft-soap barrel, but, unfortunately, next to the soft-soap barrel was one filled with "blackstrap and oil," used to soak the picker straps in, and the boy brought some of this mixture. It looked like soft soap, and numerous attempts were made to mix it with water, but they didn't succeed, and finally the whole was poured on the bearing as it was. It took a long time to cool down that bearing, and everyone waiting seemed to make it longer, and at the end it dawned upon the mechanic what the trouble was. Next time he will go after the soap himself, or remember that soft soap ought to mix with water.

As touching on the use of soft soap, an engineer showed us the other day a bearing on a calico printing machine upon which bearing a very heavy load was occasionally placed, and the shaft becomes almost at a low red heat so that it would seem that it must bend. The "only thing" that will cure this bearing is a bar of common soap laid upon it. It seems to take the heat right out of it and allow the machine to run without heating so long as the soap is in contact. It is not safe, of course, to say that a certain remedy is the only one for any particular box, but engineers evidently think so sometimes, and their experience would seem to bear them out. We remember an old engineer once telling how stupid some people were to put cold water on a bearing. "What they need," he said, "is soapy water. He will find his hands don't slide over one another very well, because there is no lubricating property in the water. Put in a little grease and you not only take hold of the dirt but you will find out that the soap is a lubricant." And yet another engineer told us of his experience as averse to soap. He said that after using it a little while it cut the brasses. Our own preference is in favor of graphite and oil mixed, though we have used soft soap and water to cool down a bearing quickly. When kerosene is used with the graphite the kerosene gives to the mixture a penetrating quality that allows it to work under narrow spaces.

HOW OFTEN THE SAME COGS MEET.

IN former years, when wooden cogs were used in all kinds of gearing, and in wooden wheels as well, the makers were anxious not to have the same cogs come together too often; because, if both happened to be soft they would wear out the more rapidly; or if one was very soft and the other very hard the soft one would wear very rapidly; either way the wearing would be very uneven, and to secure an even wear on the cogs a frequent interchange of relations was desirable and sought after in the construction of wheels. The matter is not so important now, as iron or iron and wood are used for the purpose. Still, undoubtedly, frequent interchanges of relations between the passing teeth or cogs, is of more or less benefit in securing even wear. The rule for determining the frequency of this interchange, or how often the same cogs will meet, is to divide the cogs or teeth of the pinion into the cogs or teeth of the wheel. If the result is even, without a remainder, as four divided into sixteen, the same cogs will meet at every revolution of the wheel. If there be a remainder, divide it into the teeth or cogs of the pinion. If even the quotient shows how often the wheel will revolve between the meetings of the same cogs. If, however, there be a remainder, the wheel will revolve between meetings as often as there are teeth in the pinion; and that is the greatest difference that can be obtained under any circumstances. The rule is curious, if not very useful.

A Frenchman has succeeded, it is said, in producing an excellent driving belt by parching the leather instead of tanning it. The belts have greater durability and do not stretch.



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J. S. ROBERTSON, - - - EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

REVIEW OF THE LOG QUESTION.

THE meeting of the Dominion Parliament at the present time has again brought the question of tariff reform in lumber to the front. Altogether unexpectedly, to many, the matter was touched upon by the Minister of Finance in his Budget speech in a manner not likely to be helpful to this industry. The opinion expressed by our Ottawa correspondent on this point, and which is also voiced in an article on our first reading page, is not, we opine, local only to Ottawa. The Finance Minister, above all others, should not have left this question in an indefinite and untangible shape.

From the floor of the House has come two separate motions touching definitely on the lumber tariff. Dr. Sproule has moved "That it is expedient to re-impose the export duty on pine and spruce logs." This is Mr. Ives motion of a year ago, but the member for Sherbrooke being now a Cabinet Minister he is likely to move with more conservatism than when simply a private member. In view of the announcement made by Mr. Foster we may expect that Dr. Sproule's motion will be quietly laid aside, in the meantime, as a majority of the House are likely to accept the Minister's promise of a possible change in the future as sufficient reason for not disturbing matters at present. Nowhere else, outside of politics, can men be influenced so readily to put aside intended immediate action on the trivial ground that a Minister or a Commission will first consider whether the action is necessary. The appointment of the Royal Commission on the liquor traffic, and the manner in which the Commissioners have handled the question since their appointment, is an illustration in point.

Mr. Charlton has introduced a bill on an entirely different line. Chapter 33 of the Revised Statutes contained provisions, which established export duties and gave to the Governor-in-Council power to increase, or suspend those duties. The object of Mr. Charlton's bill is to take this power away from the Governor-in-Council, and to enact that changes shall be made only by and with

the consent of Parliament. The member for North Norfolk pointed out that by the action of the Governor-in-Council the duties had been suspended on October 14, 1890, and owing to the declaration of the Minister of Finance in his Budget speech, a feeling of interest and fear prevailed in the minds of many lumbermen, lest this important industry might be hastily dealt with in the re-imposition of the duties. The duties had been first placed at \$1, then increased to \$2. When the power contained in chapter 33 was assumed by the Governor-in-Council the duties were increased by the Governor-in-Council to \$3, to the great alarm of lumber interests, and were subsequently placed back again at \$2. This seeming want of a fixed principle with regard to the industry had impressed the lumber trade with a fear that the Governor-in-Council might again be induced to take some action which might be detrimental to the lumber trade. There would appear to be no very valid objection to a measure of this kind. It would be a mistake to take from the Governor-in-Council many of the extraordinary powers that are granted to this authority, but in an industry of the magnitude of lumber, and with conditions as they exist at present, would it not be the safer plan to let Parliament itself deal finally with the question? Mr. Charlton's bill to amend the Revised Statutes of Canada, chapter 33 and 51 Victoria, chapter 15, will, if made law, accomplish this end.

The various phases of the whole question of the duty on logs and lumber are dealt with quite fully in this issue of the LUMBERMAN. We have already noticed a reference to the question in our Ottawa letter. ELI gives opportunity to others to express their opinions on the question, whilst in our news columns and letters information and opinions dealing more or less directly with the subject are printed. Under the title "Symposium on the Log Duty," two able papers covering nearly two pages of the LUMBERMAN and dealing, if not exhaustively, at least very fully with the subject from different standpoints, will bear a critical reading.

Clearly the question is one on which opinion is divided. A good deal is to be said on both sides. Only one view, however, can be made to prevail in formative legislation. The duty on logs cannot both be on and off at one and the same time. For about two years there has been no log duty. Within that period the lumber trade of Canada has emerged from a condition of severe depression to one of comparative prosperity, and with present conditions giving almost certain promise of further improvement. This phase of the question must certainly carry weight with all who think seriously upon the question.

LUMBER COMBINES.

THE spirit of consolidation that is in the air everywhere has struck the lumbermen of Winnipeg and district. A dispatch of the 1st inst. says: A strong syndicate has acquired the interests of all firms, eight in number, operating sawmills and yards at Rat Portage, Keewatin and Norman, and including the Keewatin Lumbering and Manufacturing Co., Dick, Banning & Co., Western Lumber Co., Ross, Hall & Brown, Minnesota, Ontario Lumber Co., and Cameron & Kennedy. The promoters of the syndicate have ample capital, and will be incorporated under the laws of the Dominion. All the principals in the old companies and firms are given the option of becoming shareholders in the new corporation, and many of them will be selected to conduct the business affairs of the syndicate. In fact it has virtually been decided to make Mr. D. L. Mather, at present of the Keewatin Lumbering and Manufacturing Company, president of the consolidated mills and yards, and D. C. Cameron, of Cameron & Kennedy, Norman, manager. The aggregate output of the mills on Lake of the Woods is 65,000,000 feet, and this will be increased if the demands of the market are such as to warrant a larger cut. The consolidation of the mills, it is claimed, will effect a great saving in working expenses, in the matter of salaries for travellers, office help, etc., besides preventing much of the loss that has been experienced by lumber dealers involving themselves with several mills.

The early months of the new year have also witnessed the first steps taken in the formation of a big lumber combine in the States. Charles

Vay Holman, Boston; John Ross and Cornelius Murphy, Bangor, are the reported promoters of the deal, the first named being the financial element in the concern. The others are extensive mill owners in Maine. The syndicate is said to have secured 30,000 acres of lumber land in Maine, 25,000 acres in Florida, 30,000 in Kentucky and over 200,000 in New York. It proposes to put in mills in Maine, Massachusetts, Kentucky, Illinois and New Mexico, and to sell direct to builders. The syndicate is said to have a capital of eighty million dollars. By dealing directly with builders the trust expects to undersell lumber dealers great and small and to fill contracts more expeditiously and more cheaply than can be done by anybody else.

At the same time it is not always smooth sailing with the combines. Very nearly simultaneous with the dispatch giving news of lumber men combining comes word that the big book combine organized in 1890 under the name of the United States Book Company, with capital of \$5,000,000 has been placed in the hands of a receiver.

EDITORIAL NOTES.

THE new president of the Canadian Manufacturers' Association is Mr. John Bertram, of the Canada Tool Works, Dundas, Ont. His predecessor was Mr. W. R. McNaught, whose interest is in the manufacture of watch cases. Mr. McNaught favors preferential trade with Great Britain, and he made this the keynote of his address at the annual meeting of the association a week ago. His concluding words were an appeal to the patriotism of the Canadian people, thus: "The national future of Canada does not in my opinion depend upon the good will of other countries so much so as, under Providence, what her own people make it. If we are but true to ourselves we need have no fear as to what the future has in store for us." The Government are urged to "grant a subsidy sufficiently large to guarantee the establishment of a fast Atlantic steamship service between this country and Great Britain."

"THIS is not a cold world after all," remarks the Bangor Commercial in giving particulars of the kindness shown by the Redington Lumber Co., of Maine, to a number of men who were taken down with typhoid fever which has been raging in the woods of that section. A hospital was provided for the sick ones, physicians and hired nurses were engaged to take care of them, and the bills amounting to over \$500—paid by the company. These men, though working in Maine were Canadians from New Brunswick, and as they commenced to near convalescence, finding that they would be unfit for work for several months, the manager of the company interested himself to secure passes for the men to Vancebro, and then solicited passes from the Canadian Pacific railway, which were cheerfully granted, to take them to St. John, N.B. It is the rendition of acts of kindness such as this that keeps alive our faith in the goodness of humanity, despite the prominence the newspaper press of the present day gives to the worse side of human nature.

THE account of the annual meeting of the Western Retail Lumbermen's Association, given in a Winnipeg letter on another page, should prove interesting reading to the lumbermen of Ontario. There we find a strong, well-organized association doing a good work for its members and conducted in a manner that makes it desirable evidently for most lumbermen in the district to become members. Neither wholesalers nor retailers, hardwood men or those devoting themselves to other lumber interests in Ontario, can manage somehow to join hands in an organization for the mutual benefit of each. In our intercourse with the lumbermen of city and country this matter is frequently pressed upon us in one shape or another. Somebody has made a loss or is possessed of a grievance that it is known could easily have been avoided, or speedily be removed, if lumbermen only consulted more frequently with one another. The necessity for organization is admitted, but organization does not take place. Perhaps conditions in the west may not be without influence on the brethren in the east.



THERE are quite a large number of Canadians who are working in the shanties of New York State. Captain W. O. McKay, of Ottawa, the lumberman's agent, who recently returned from Utica, N.Y., and vicinity on a visit to those shantying regions, states that an average of five feet of snow prevails and proves excellent for hauling. The cut, though, is somewhat retarded and the total output from the woods will be poor as compared to previous winters.

* * * *

Mr. W. Hurdman, one of Ottawa's big lumbermen, speaks hopefully of the English lumber market. He says: "The unusually early return of English buyers and their efforts to make arrangements for their season's shippings, betokened a very much livelier season. The English buyers had been here about New Year's instead of the end of February, and had been very busy, and were busy still."

* * * *

The blunders of our friends across the Atlantic, when occasion requires them to write or talk of Canada, are sometimes quite amusing. I have just had placed in my hand an envelope bearing the address of the publisher of the CANADA LUMBERMAN from a newspaper publisher in England, on which is inscribed the words, "Toronto, Canada, U.S.A." This ought to be good news for that erratic ex-alderman who in the wisdom of his audacity essayed to lead Canada into annexation with the United States. No, there is much we admire in our friends to the south of us, but we are rather coy of entering into relations as intimate as suggested by the address of our English friend.

* * * *

A fortnight ago I had a pleasant chat with Mr. M. Dougall, of Midhurst, Ont., who is buyer in Canada for Alfred Clapp & Co., wholesale lumber dealers, of Boston, Mass. Mr. Dougall's interest is in the hardwoods of the Dominion and he is constantly on the wing ready to light on desirable hardwoods of any kind wherever they may be found. He finds hardwood a somewhat scarce commodity, and for all that can be found a good price is to be paid. Mr. Dougall's father was one of the early settlers in British Columbia, in the days when comparatively little was known of the immense timber wealth of the Coast. To the senior Dougall, the son claims, credit is to be given for the shipping of the large flag-pole to Queen Victoria in the sixties, and which came to grief when being placed in Kew Gardens. Another one was afterwards forwarded to replace the broken pole. Reference, it will be remembered, was made to this matter by Mr. Hendry in the January LUMBERMAN.

* * * *

"Despite the fact that I should be jubilant over my recent election," said Mr. J. Sterling Morton, who will be Secretary of Agriculture in President Cleveland's Cabinet, "I am troubled. Every day that passes sees the timber producing land of this country reduced by 25,000 acres. There are only 40,000,000 acres of timber left in this country, and at this rate of destruction it will last only a generation. The most important matter that will occupy my attention when I enter the Cabinet as Secretary of Agriculture will be the preparation of national forestry laws, to be presented through some kindly Congressman to Congress. Nearly 2,000 ties are consumed for each mile of railroad track, and they last from two to six years, according to the ballast. Now, what a great benefit would be derived by securing legislation that would make the railroads utilize their right of way to plant trees for their own consumption. Think of an arbour reaching from Jersey City to San Francisco, from ocean to ocean. You would be able to travel this distance in an arbour cool and dustless in summer and free from snow in winter were the railroads to set trees by the side of their tracks."

"There can be no doubt," said Mr. H. H. Spicer, of Vancouver, B.C., whom I met in the city a few days ago, "that it is only a matter of a little time when the cedar shingles of the Pacific Coast will find a large sale in Ontario." Mr. Spicer is a manufacturer of cedar shingles and to that extent the wish is father to the thought, but the confidence shown by Pacific Coast manufacturers in the quality of the cedar shingle is quite remarkable. "Yes it is true," added Mr. Spicer, "that just at present we are suffering in British Columbia from over production in the manufacture of shingles and as a consequence there has been a good deal of cutting in prices. It is the case that shingles have been sold as low as \$1.20 and \$1.25 when we figure the cost of production at \$1.35 to \$1.40. Our market is confined largely to our own province and the northwest territories, whilst our capacity for manufacturing would enable us to supply a much wider field. We will have that yet. I will spend a few days in Toronto and then go east taking in Ottawa and Montreal and likely reach home by way of the States."

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Mr. W. Ogilvie, surveyor, says of the Athabaska country in the North-West: "On the Athabaska, from the mouth of the Pembina down to Fort McMurray, the valley is narrow and from two hundred to three hundred feet deep. In the bottom of the valley there is much spruce and some poplar that would make fair lumber. On the uplands, as far as I saw, there are many places where a similar quality can be obtained, but, as a rule, the trees are much smaller than the people in the eastern provinces are accustomed to see made into lumber, though they would compare favorably with those used in the other parts of the Territories. From McMurray down to the lake the banks are lower and the valley wider, until near the lake there are little or no perceptible banks. Here there is much fine merchantable spruce, but unfortunately it cannot be brought to market without the aid of a railway, the streams in the country flowing in a contrary way. This objection does not apply so forcibly to that part of this river above Athabaska Landing, as all the timber above this point and on Lesser Slave river and lake could readily be floated down to this point, and as it is only about 96 miles from thence to Edmonton by the cart trail, and it is probably the point where the first railway north of Edmonton will cross the Athabaska river, its timber resources stand a chance of being utilized much earlier than those on the lower river. I am sorry to say, however, that long before it will be necessary to resort to this, much of it may be burned, as such is the case along the trail between Edmonton and the Landing. In 1884 I passed over this trail twice and saw many groves of fine spruce, but last summer I saw that much of the best of this timber had been completely burned off. Then the country in the immediate vicinity of the landing was all heavily timbered and much of it is merchantable. Last summer, especially in the Tawasana valley and vicinity, the country resembled prairie nearly as much as the country in the immediate vicinity of Edmonton does."

* * * *

Speaking of the exportation of logs to the United States, Mr. R. W. Phipps, the well known forestry clerk, remarks that there is another side to this question. "In lumbering and sawmilling there are two industries. Getting a log out of the woods is a work of time and employs many men; cutting the same log into lumber is a matter of a very few minutes and employs very few men. Whether the log goes whole or cut to the States by far the greater part of the labor is performed here. The lumbermen are counted by thousands—one firm will sometimes have a very great number and there are many firms. Not so the mill men. Now, as to another point. When a log goes to the States it is all sold and probably all used." In Chicago, if you purchase kindling wood, you will find it small round bundles of sawed slabs (the outside of the log) and sawed boards (the poor cullings sawed off to get at the good pine). Over this, by the way, they pour a combustible composition. Well, suppose you have been patriotic and saved a cent to home industry by sawing up the whole log here, what are you to do with all but the good lumber? It may be different at some mills, but at points I know of, where immense quantities were at that time yearly cut up, the

rough stuff was lost, except what could be used for fuel. I saw one mill where an esplanade had been made of it ten feet deep, solid, which served as a foundation for the real lumber yard. It would have cost more to send it by rail to any marketable point in Canada than it would have sold for there. But it could have been floated to the States. At the same time there were many cars standing in that yard loaded with the choicest lumber for the States and England. As you may suppose, the rough stuff would not be sent to England either. The matter seems clear to me that whether we sell by the log or by the limit, Ontario is likely, sold as these are by auction, to get more for the logs than she can possibly gain by having them cut up here. It would be a different matter if this could be called a manufacture. But the cutting of a a sawlog into strips is a very small, a very unremunerative part of the process of the manufactures to which it goes and where it is used."

* * * *

A good friend from British Columbia is of the opinion that in an interview with W. J. Hendry in the January LUMBERMAN I did injustice to certain lumber interests of that province. I have sometimes referred to this particular page as a "Free Parliament," where lumbermen, and those interested in matters treated of by this journal, are at liberty to freely express their own opinions. Of course the editor will not admit in any part of the paper, information or news that is known to be erroneous; but the only criterion often he has to guide him in a matter of this kind is the usual good character and reliability of his informants. Now as to "Brunette's" letter and his criticism of the statements made by Mr. Hendry. "Brunette" says "it is quite evident that Mr. Hendry knows nothing whatever about Douglas fir, as the description of it as given in the article referred to is about as wide of the facts as it is possible to be." Mr. Hendry had said: "There is the Douglas fir of the western slope of the Rockies, sometimes called Kauri pine; it is non-resinous and non-fibrous; free from all the defects of eastern pine and spruce, but lacks their strength; is capable of taking a nice polish; is easy and economical to work, etc." "Brunette" replies: "In sixteen years experience in the lumber trade in B.C. I have never yet heard Douglas fir called Kauri pine. It certainly attains to a great girth—Mr. Hendry had said this—but is both resinous and fibrous. It is not quite free from all the defects of eastern pine and spruce, but is very much stronger than either of them and in proof of this it is largely used in car-building in preference to eastern oak. The results of some tests made by some of the officials of the Northern Pacific R.R. at Tacoma lately prove beyond a doubt that Douglas fir stands a greater strain than eastern oak to say nothing of pine. It may take a fine polish, but I have not seen any of it in that shape, and as to being easy to work—well, ask any carpenter out here who has been accustomed to eastern pine. It seems to me that Mr. Hendry has confounded the Douglas fir of British Columbia with the Kauri pine of New Zealand, which, I believe, answers to Mr. Hendry's description in most particulars." I have given "Brunette's" letter as written, and with his many years' experience in the lumber trade on the Coast he can certainly speak with authority. Mr. Hendry may not be possessed of the same personal information touching Douglas fir as "Brunette." This is to be remembered, however, that few men are credited with a more thorough knowledge of the timber trade of Canada than Mr. Hendry. One thing we may be sure of, that no statements would be made by Mr. Hendry with the purpose of injuring any particular timber interests in the Dominion. It is quite unnecessary for the LUMBERMAN to say that it would not, knowing it, give publicity to any statement that would prove prejudicial to British Columbia's interests. The large share of attention given by this journal to Coast affairs, and the manner in which they have been dealt with in these columns, is the best reply we can make on the point. It is not improbable that Mr. Hendry, as suggested by "Brunette," has confounded Douglas fir with the Kauri pine of New Zealand. In connection with Mr. Hendry's views I was interested in noting the number of newspapers in British Columbia that reprinted without comment this interview as it appeared in these columns.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE announcement made in the Budget speech, that the Minister of Finance would consider, during the year, the question of re-imposing the duty on logs at next session of Parliament, is causing some unrest among lumbermen of the Ottawa Valley. With many statements made by political leaders, the problem is to understand their real import. This is shown in the position taken by the Ministry on the main question of tariff reform. Government supporters, supposed to be within the inner circle, expected that there would be this session, to employ the language of the Premier, a generous "lopping off of the mouldering branches" of the N. P. But the speech of Mr. Foster revealed the fact that the policy now was "wait a little yet." The statement of the Finance Minister that a change in the lumber policy of the government is under consideration may be made simply to placate Messrs. Ives, Sproule, Masson and others who are seemingly pledged to reform in this direction, or contrawise something more definite may be the programme. It is a politician's statement and herein is its weakness and uncertainty. The lumber trade shows every sign of a healthy revival after not a few years of depression, and the Finance Minister assumes no inconsiderable responsibility in throwing into its midst the bomb of uncertainty.

Whether the tariff, so far as lumber is concerned, would be improved by any amendment of present conditions, I am not discussing at this time. I simply want to emphasize, and lumbermen, both opposed and favorable to the re-imposition of the log duty, will, I believe, agree with me, that this policy of hinting, that some day in the misty future some change may take place, is most damaging to every part of the lumber interests. If a change is proposed, Mr. Foster ought to know the true condition of affairs to-day, as well as he is likely to know twelve months hence, and be able to act accordingly.

WHAT LUMBERMEN SAY OF THE OUTLOOK.

The trade here are quite confident that business the coming spring will exceed that of a year ago. A large portion of the lumber will be sent to the Eastern States, although some firms have already booked large orders for the European markets. Bronson & Weston say: "There seems to be a feeling among dealers that the trade will be somewhat better than last year. There is a scarcity in dry lumber which may command a natural increase in the price of that class of lumber, but all other will in all probability sell in the region of last year's prices. It is not yet known what effect the South American market will have upon trade. We expect to cut about fifteen million feet of lumber this season, about the same quantity as we cut last year." Mr. J. R. Booth: "The spring lumber trade ought to be better than it was last year and prices will not be materially changed from what they are at present. There is now very little lumber in the city to meet the early spring demands for shipping. Scarcely any dry lumber can be found as it was all sold early." Mr. P. Whelan, manager of the Shepherd & Morse lumber company, said there was nothing to prevent the trade being better except there should be a dearth in the United States money market in consequence of the large shipments of gold and silver out of that country to Europe. Another outbreak of cholera in New York might also seriously injure trade.

INDIFFERENT LENGTHS.

Gilmour & Hughson's new saw mill at Hull Point is rapidly drawing to completion. A large number of men are at present engaged erecting logways for the purpose of hauling the logs from the river into the mill. If the work is not impeded everything will be placed in proper order to begin work at the opening of the spring season. The mill when completed will employ over two hundred hands.

It is reported that the Whitney Lumber Co., of Minneapolis, who bought Perley & Pattee's limits last year, are having Fraser's Opeonogo limits travelled with a view of making a purchase. They talk of making extensive sawmills at Long Lake.

OTTAWA, Can., Feb. 24th, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE newest thing in lumber in the province is the proposed formation of a shingle trust. There has been considerable over production in shingles on the Coast lately, and as a result prices are being cut. Shingles must necessarily prove an important factor in lumbering here, and, as is often the case, under similar conditions, everyone has supposed there was money for them in the business. Recently a number of men, possessed of only a limited capital, have gone into the business, and not being in a position to hold stocks over a dull market, they have sacrificed prices. Shingles have been sold as low as \$1.15 per M., and a sale of 2,000,000 is reported at \$1.25. The actual cost of production is not less than \$1.40

per M. and the usual selling price has been \$1.75 to \$2.00. To overcome like difficulties in Oregon and Washington, a shingle trust was formed there, and it has been, so it is claimed, productive of good results. It is anticipated that the same remedy will effect a cure here, and that such a combination of leading shingle men will also result in an extension of the trade.

SHIPPING NEWS.

The German ship Katharine 1630 tons, Capt. Spille, sailed for Iquiqui, with a cargo from the Moodyville Mill, consisting of 827,811 feet of rough, 480,209 feet T and G flooring, and 10,753 feet clear lumber, making a total of 1,318,873 feet, and valued at \$14,100. A new charter reported is the American ship Ivy, 1,181, which has been fixed to load at the Hastings Mill for Wilmington, Delaware. This is the sixth vessel to load at this mill for this port, showing that British Columbia can hold her own against the United States in timber. The Ivy is now on her way up here from Portland, Oregon. The terms of her charter are private.

COAST CHIPS.

W. L. Tait, shingle mill, Vancouver, is putting in a sawmill plant.

The Hastings mill which was shut down a month for repairs has started cutting again.

The owners of the Buchanan mill at Kelso have let contracts for \$20,000 worth of logs for next season.

Jas. Reid & W. A. Johnston, sawmill owners, Quesnelle Mouth, Cariboo, have dissolved, Jas. Reid continuing.

The British barque Highlands, 1,356 tons, Capt. Owens, has finished loading a cargo of lumber at the Hastings Mill, for Montreal. She has on board 896,663 feet of rough lumber.

R. Ward & Co., Ltd., have contracted to send to Australia within the next year something like twenty large shiploads of timber from the Province. It will be for use principally in the mining sections of the Antipodes.

The first industry for Okanagan Falls will be the new sawmill which is being put in by Mr. W. J. Snodgrass, of Le Grand, Oregon. The machinery is being brought in by way of Seattle, and has passed the customs.

It may astonish many to hear that a Puget Sound lumberman has to come to British Columbia to buy cedar. It will be interesting to know if the contractor will ship the lumber as Puget Sound or British Columbia cedar.

A local lumberman has been experimenting on the relative strength of the Douglas fir of this province and oak. The result of his experiments show that the oak was only very slightly stronger than the Douglas fir. This announcement is highly satisfactory to lumbermen generally, as it is expected that there will be a greater demand for Douglas fir.

The Pacific Coast Lumber Company are sending to Toronto three fine bundles of shingles as a sample of the class of cedar shingles which British Columbia can supply. As our cedar shingles last three times as long as eastern white pine shingles, no doubt a good trade can be worked up in the east in this line. They can be laid $5\frac{1}{2}$ to the weather, which makes them equal in price to pine shingles. They are much more lasting and do not warp. They can be laid down in Toronto, Montreal, etc. at \$2.90 to \$3 per M.

NEW WESTMINSTER, B.C., FEB. 22, 1893.

MANITOBA LETTER.

[Special correspondence CANADA LUMBERMAN.]

THE annual meeting of the Western Retail Lumber Dealers' Association was held in Winnipeg on 13th inst. The Association, though less than a year organized, is a pretty healthy child. The membership embraces all dealers located on the line of the Canadian Pacific, as far west as Indian Head, and those on the N. P. and other local and branch lines in the province. There was a large representation of members present. The meeting was presided over by P. Aitkins, of Morden, in the absence of the president.

SECRETARY'S REPORT.

G. B. Housser, secretary, submitted the following report:

At our annual meeting nearly a year ago we had a membership of 145, of which 130 were active and 15 honorary members. During the year I have received and accepted 60 applications, making a total of 205 members since our organization. Out of this number 30 have been dropped on account of retiring from business or otherwise, thus leaving the membership to-day 154 active and 21 honorary members. When mailing notices of this meeting I enclosed a circular asking for some information. About half of these have been returned. Therefore I am not able to-night to give the total amount of lumber used in this province in 1892. However, if the circulars received are a sample of the other half, they show which way the wind blows, as nearly all the replies have no suggestions to offer nor any grievances to air. I have received nearly 100 letters since April 1, 1892, and have written as many, if not more. Several of these letters asked if I couldn't do something to reduce the wholesale price list of lumber and have the terms extended from two to three months. I leave this to the honorary members to adjust, believing that they will get all they can but do what is right with us. Several letters complain that there is not enough business where there are two or more yards. My advice has been to buy, or sell to their competitor. We do not ask the members to stay in the business if it does not pay them. A great many members wish to have their price lists readjusted. This can easily be done by the mem-

bers themselves. Each district can change its price list as often as wished, so long as it is unanimous, and a copy of the new list adopted is signed by all the members on the same list and forwarded to the secretary. Blank lists will be sent by the secretary to all members on application when any changes are desired.

We have had several complaints during the year against members for selling below the price list. We have endeavored to settle all these complaints satisfactorily to the parties interested. We have three which have been acknowledged and are promised to be settled soon. I have delayed further action believing such would be the case. Two are still in abeyance and one is now being investigated.

We have been asked to join the United Associations of Lumbermen, the object of which is as explained in its constitution and by-laws. The membership fee is \$25 for an association of 100 members and \$10 for every additional 100. We would have to pay \$35. The next meeting will be in Cleveland next October and we would be permitted to send two delegates. I have promised to bring this question up for your consideration. I have had considerable correspondence with the British Columbia manufacturers about becoming honorary members of our association. The Brunette Saw Mill Company, the British Columbia Mills Lumber and Trading Company and Geo. Cassidy Company are now members and most of the others very favorably. We expect to have them all in very soon.

I have asked the attorney general to amend the lien act this session. He has promised to give the question his attention. The directors have met three times at special meetings during the year.

TREASURER'S REPORT.

The following financial showing was made in the treasurer's report submitted by Mr. Housser:

RECEIPTS.

Balance on hand April 1, 1892.....	\$433 30
Membership fees.....	610 00
Annual dues 1892.....	1,250 00
Annual dues 1893.....	10 00
Fines paid in.....	106 50

Total.....\$2,409 80

DISBURSEMENTS.

Postage, telegraph, express, etc.....	\$ 58 45
Stationery and printing.....	39 50
Printing annual 1892.....	100 00
Ernest Fisher and Nelson lien act costs ...	70 00
Wholesale fines paid out.....	31 50
Travelling expense secretary.....	172 05
Directors' meeting's.....	378 70
Salary of secretary.....	600 00
Rent of hall.....	5 00

Total expenditure.....\$1,455 20

Balance on hand.....\$ 954 60

NEW OFFICERS.

The election of officers resulted as follows: President, Alex. Brown, Winnipeg; vice-president, J. L. Campbell. Directors:—G. B. Housser, Portage la Prairie; R. H. O'Hara, Brandon; John Boyd, Deloraine; J. M. Hall, Winnipeg; P. Aitkins, Morden. The secretary-treasurer is elected by the board of directors, and a choice will be made shortly. Mr. Housser, who has held the office since the organization of the association, finds it necessary owing to pressure of other work to withdraw, but will perform the duties until his successor is appointed. He has been a model secretary.

MISCELLANEOUS BUSINESS.

The association will apply for membership in the United Association of Lumbermen.

The following committee was appointed to go before the legislature and ask for amendments to the lien law; J. L. Campbell, T. A. Cuddy, John Dick, A. Brown, J. D. Kennedy, G. B. Housser, L. J. Ashley. The meeting throughout was of a most satisfactory character and indicates a large amount of vitality among the lumbermen of this province.

WINNIPEG, MAN., Feb. 20, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

STATISTICS of the pine product of the Saginaw River for 1892 show a decline in the output as compared with the previous year, amounting to 50,748,521 feet; at the same time there was a decrease of the amount on hand of 105,064,467 feet. Shingle statistics show the output for 1892 to be 182,315,250, as against 222,607,250 for 1891, a decrease for the past year of 40,292,000. Stocks on hand at the close of 1892 were 16,911,000, against 30,486,250, a decrease of 13,575,250. Although the cut of Michigan in 1892 was less than that of some former years, still Michigan remains the Premier lumber State, the product representing nearly one-half the production of the entire Northwest.

BITS OF LUMBER.

A Bay City estimate says that over 200,000,000 feet of Canada logs will come from Lake Superior.

H. S. Mathewson is cutting 500,000 feet of choice maple logs in Roscommon county for shoe last timber.

George R. Nicholson, of Alpena, Mich., is in Canada on business connected with his extensive Canadian timber limits.

Col. A. T. Bliss, the well known lumberman of Saginaw, has donated \$50,000 to Albion college for the erection of a library and memorial hall.

Skilled woodsmen are a scarce commodity in eastern Michigan and there is an active demand for help in every section. Lumber firms are being forced to advertise extensively for men for the woods,

THE NEWS.

ONTARIO.

—J. H. Bowman & Company, planing mill, etc., Dundas, have assigned.

—An assignment is made by J. A. & M. Dawson, saw-millers, Windham.

—Noble & Davidson, wood-turners, Toronto, have assigned and the estate is to be wound up.

—C. Young, of Young's Point, is shipping considerable cedar and tamarac to Toronto for paving purposes.

—A large elm tree grown on the farm of Joseph Johnston, Culross tp., Bruce co., contained 3,900 feet of lumber.

The sawmill of the Rathbun Company at Campbellford, was destroyed by fire on the 23rd ult. Loss \$6,000; fully covered by insurance.

—A number of creditors mourn over the absence of Levi C. Dick, planing mill man at Fordwich, who was disposed to extend his business beyond reasonable limits.

—It is estimated that 150,000,000 feet of logs will come out of Spanish river the coming summer, nearly all of which will be towed across the lake to Michigan mills.

—Thompson & Sons, of Peterborough, have five or six teams on the road drawing square timber out of the Oregon settlement in Harvey for Lakefield to be shipped on the G. T. R. for Halifax. The quality of the timber is good.

—The new shingle mill of the Parkin Lumber Co., (Ltd.), of Lindsay, is described as a very complete building. The building is of white brick and fire-proof, and contains almost every modern convenience that a manufacturer might wish for.

—A local report says: C. H. Merrifield, saw and planing mills, Monkton, is doing a brisk lumber trade. He has 600,000 sawlogs in his yard now, and expects double that number before season closes. His stock consists chiefly of pine and ash.

—The new mill of Sutherland, Innes & Co., at Coatsworth, is nearly completed. It will be one of the most complete mills in the province, with three boilers, and stave, hoop and heading machinery, and when run to full capacity will employ 75 men.

—The other day Geo. Nigh, of Springfield, near North Bay, sold a tree in the bush, which when cut down measured six feet across the stump end and was 60 feet long after leaving a 6-foot stump. The tops when cut into 20-inch stove lengths made about twenty cords of good wood.

—The Orillia Packet states that owing to the town council breaking faith with him in the matter of tax exemption, Mr. Tait has decided to remove his new sawmill to some place where pine is abundant. Mr. Tait's lumber yard here will then be supplied chiefly by the Huntsville Lumber Co.

—Stephen McGonegal, a jobber for the Rathbun Company on the Mackay limits, recently cut for the Lavant operations sixty-five logs from four trees. From one tree he cut seventeen logs 13 feet and four sixteen feet in length; from a second tree cut seventeen logs 13 feet long; and from the fourth twelve logs 13 feet in length.

—Robert Stewart, of Guelph, has received one million feet of lumber purchased in the Parry Sound and Muskoka districts. Some of the lumber was purchased from the limits formerly owned by the Guelph Lumber Co. Mr. Stewart states that there have been three fortunes made on these limits, and that if the first purchasers in Guelph had held on to their investment they would have been very wealthy men to-day.

—Currency is given by the local press to the following: Messrs. Gilmour & Co., who operate extensive mills at Campbellford and Trenton, have in contemplation at the opening of spring, the building of a railroad or the laying of an endless chain from one lake to another in the Nipissing district, where they recently purchased timber limits for the large sum of \$703,699. The railroad or endless chain will be two miles long, and with its accomplishment the company will be able to run all their logs down by way of the Otonabee river, through Peterborough, into Rice Lake and the Trent River, to Campbellford and Trenton. It is said that their limits in the Nipissing district are so extensive and thickly wooded that operations can be carried on for fully thirty years. These mills have, therefore, a long future in store for them.

—W. D. Whyte, accountant for the Conger Lumber Company at Parry Sound, was found dead in his room in the St. James Hotel, Toronto, a fortnight ago. He was on his way to Elmira, N.Y., where he was to take a position in the company's business at that point. A good deal of mystery surrounds the unfortunate affair. Whyte was highly respected by his employers and had been with them for some years. The most plausible theory points to suicide, as a 32-calibre revolver

Butters & Peters, at Ludington, are buying hardwood logs at the rate of 100,000 to 150,000 feet a week. They mostly come from farmers' cuttings.

An increasing quantity of hardwood is being cut in Muskegon territory from year to year. Last season Munroe & Brinen floated down the Muskegon river 1,000,000 feet of ash which brought a good return.

The new mill of the South End Lumber Company is almost completed. It is said that the company has contracted with Fisher & Turner to cut 350,000,000 feet of Canada logs at the rate of 30,000,000 feet annually.

Thompson Smith's Sons, at Duncan City, have closed a deal for 70,000,000 feet of Canadian pine on the Massasauga river about 25 miles north of Thessalon. This firm owns 200,000,000 feet of pine in the Georgian Bay district.

F. W. Reid & Co., of Eagle mills, are going to ship to the World's Fair their prize load of logs, which with the team, teamster and loaders will be on exhibition during the fair. It consists of 28 16-foot logs, scaling something over 28,000.

Richard Nilson wants the A. W. Wright Company, of Bay City, to pay him \$15,000. He was in the employ of the company in 1891, and was struck by the breaking of a chain, inflicting injuries which he deems worth the sum asked. The company will let the courts fix the measure of damages.

The Arthur Hill Company, which is putting in 20,000,000 feet of logs in upper Michigan, will clean up lumbering there another year, unless further timber purchases should be made. The company owns 250,000,000 feet in the Georgian Bay district, and a syndicate, in which Mr. Hill is one of the heaviest concerned, purchased last season 500,000,000 feet in the Ottawa district, that will be manufactured in Canada for the eastern market.

C. K. Eddy & Sons have purchased timber berth 107, on the Spanish river, Ont., including a camp outfit and 5,000,000 feet of logs on skids. The consideration is reported at \$100,000. The berth is estimated to cut 30,000,000 feet and there will be cut off this winter 8,000,000 feet. All of this stock will come to Eddy & Sons' mill at Saginaw. They own a tract of 400,000,000 feet in addition to the last purchase, on Georgian Bay waters.

It is believed that the Spanish River Boom Company, which recently met in Toronto and elected officers, has perfected arrangements for the securing of and early supply of logs for the Michigan mills. As you know the company is composed almost entirely of American lumbermen. E. T. Carrington, the newly elected president of the Boom Company has been secretary and manager of the Rifle River Boom Company ever since its organization, about thirty years ago, and has thereby had sole control; hence he is specially fitted for the position to which he has been elected.

SAGINAW, Mich., Feb. 25, 1893.

PERSONAL.

Mr. Callaghan, of the Rathbun Co., Deseronto, Ont., has been visiting the lumbering camps north of Minden, Ont.

Jean Baptiste, of Three Rivers, Que., head of the large lumber firm founded by his father, the late George Baptiste, a pioneer of St. Maurice district, is dead.

A. H. H. Hemming, artist, is on a visit to the lumber camps of the Georgian Bay and Ottawa for the purpose of writing up and illustrating life in the shanties for Harpers' Weekly.

As certain as the year comes round the LUMBERMAN receives an annual call from Mr. J. D. Barr, of Medonte, Ont. Mr. Barr is one of ye lumbermen, who not only knows how to run a sawmill, but is the possessor of a head for invention, that may some day enable him to rank with the Stephensons, the Howes and others of the world's great inventors. He is busy at present on a piece of invention that he believes will have an important bearing on the running of the modern sawmill.

Of the several American lumber firms operating extensively in Canada, Merrill & Ring, of Saginaw, Mich., are among the largest. This concern, or the members of it, cover a good deal of territory. Thomas Merrill, the head of the concern, has been a resident of Saginaw for thirty years, and is one of the most successful operators in the business. His son, T. D. Merrill, was born within hearing of the circular saw, as was Mr. Ring. They have a considerable interest in lumber in Duluth. Besides, they operate a planing mill and yard at Toledo, where they will probably handle 20,000,000 feet or more of lumber the present year. The firm of Merrill, Ring & Fordney own 300,000,000 feet of pine on Georgian Bay and a mill there of 12,000,000 capacity, the stock of which goes to Toledo, and it is understood they will erect another mill in the same district. On the American side the Merrills own an interest with A. P. Bliss in about 1,600,000,000 feet of lumber on the Pacific coast.

was found near where the lifeless body was found. No reason can be given for the rash act. He leaves a wife and child. Confirming the suicide theory in his pocket was found a gold watch and inside the watch was a note which said that it was to be given to little Davie, his son, when he grew up. A man named Ostrom who was last seen in his room cannot be found.

—In the case of Eddy vs. Spratt Judge Melhiot, of Aylmer, has given a decision in favor of the defendant. The dispute was in regard to certain land in the township of Hardley, covered with valuable timber. Eddy claimed that section which gave to him the more valuable timber and put a number of men on the property to cut the timber. Spratt had Eddy's men driven off by force, wherefore Eddy sued for injunction to stop the use of force and permit a peaceable acquisition of the timber with the result now noted.

QUEBEC.

—Mr. Charette, of Charette & Melanger, sawmill operators of Point au Chene, has transferred his interest in the mill to Mr. Alcide Lafortune, of Gatineau Point village, who will take an active working part in the business.

—There is an agitation in the lower St. Lawrence for further shipping facilities at Rimouski. The following figures will show the amount of business done by the several lumber firms in the Rimouski district, and along that portion of the Intercolonial railway during the past year: Messrs. Price & Co. handled 125,000 logs or 375,000 deals at Metis, 100,000 logs or 300,000 deals at Amqui, and 35,000 logs or 105,000 deals at Bic. Besides this, King Bros. & Co. handled 75,000 logs, or 225,000 deals at Cedarhill, while Shell, McPherson & Co. had 40,000 or 120,000 deals at Sayabec, making 1,125,000 deals to be shipped at the port of Rimouski.

MANITOBA AND THE NORTH-WEST.

—The liabilities of McKerlie & Dillingham, lumber, Wawanesa, Man., are \$3,600 with assets about equal. They commenced business in July, 1890, with a cash capital of \$1,000. A letter states that the stringency of the money market and the difficulty in collecting accounts precipitated matters.

NOVA SCOTIA AND NEW BRUNSWICK.

—A good business is being done by A. McMullen at Folly Lake, N.S. Two camps are at work and the crews of men are yarding about 300 logs per day. At another part four crews are logging. The deals are all sluiced to Acadia Mines. McMullen is after five million feet of lumber this year.

—The shingle business in Restigouche county, N.B., is becoming a great industry. There are about 60 machines now in operation and the number is steadily increasing. In winter many portable mills are operated at points not many miles from the railway and the product is hauled to railway crossings or stations. The whole product goes to the United States.

LUMBER DECISION IN COMMERCIAL LAW.

FAIRCHILD v. FERGUSON.—R., manager of an unincorporated lumbering company, gave a promissory note for logs purchased by him as such manager, commencing "Sixty days after date we promise to pay," etc., and signed it "R., manager O. L. Co." An action on this note against the individual members of the company was defended on the ground that it was the personal note of R., that the words "manager," etc., were merely descriptive of R.'s occupation, and that the defendants were not liable. Held, by the Supreme Court of Canada, affirming the judgment of the Supreme Court of the North-West Territories, that as the evidence showed that when the note was given both R. and the creditor intended it to be the note of the company, and that R. as manager was competent to make a note on which the members of the company would be liable, and as the form of the note was sufficient for that purpose, the defence set up could not prevail and the plaintiffs in the action were entitled to recover.

KIND WORDS FOR THE "LUMBERMAN."

IT is not sufficient with many subscribers that they remit, promptly, their subscriptions to the CANADA LUMBERMAN, but from them come, at the same time, words of encouragement that are a stimulus to publisher and editor to fresh effort and energy in the future.

J. Bédard, Richmond, Que.: One dollar for the LUMBERMAN is far too cheap for the good information we get from it.

Jno. Dowling, Brantford, Ont.: The CANADA LUMBERMAN is to me a very valuable journal.

John Milne & Son, Huntsville, Ont.: We like your paper well.

P. B. Lantz, New Ross, N.S.: Your paper is all that is required in news on lumbering business.

MacPherson & Schell, Alexandria, Ont.: We have pleasure in congratulating you upon your success in keeping the LUMBERMAN in front of the army of lumber journals.

TRADE REVIEW.

Office of CANADA LUMBERMAN, February 28, 1893.

THE GENERAL SURVEY.

NO good reason exists for supposing that general expectations of an increased and improving lumber trade in Canada during 1893 will not be realized.

The foreign outlook is less hopeful though the reference under this head to the circular of a Glasgow lumber firm would seem to indicate a better demand for Canadian lumber, at least in that part of the United Kingdom.

Trade in Ontario is likely to be fairly active the coming season, commercial reports giving grounds for believing that the general commerce of the province is improving.

It may be expected that British Columbia trade will be enlarged in 1893. Our correspondent at New Westminster reports a large order for B.C. lumber from Australia which is a cheering rift in the cloud that has overhung Australia commercially for two years past.

Quebec and the Maritime Provinces will, we have reason to hope, improve on their trade of the past few years.

HARDWOODS.

The hardwood market in Canada manifests considerable activity. The mills working largely on hardwoods are kept busy and satisfactory sales are being made.

UNITED STATES.

Enquiry in the lumber trade concerns the near future rather than to-day. Spring is approaching rapidly, despite a continued abundance of snow, and plans are being laid for the trade of the coming season.

increase. Extra interest is felt in the yellow pine trade and in some points is coming into competition with white pine. In northern consuming centres beyond the Ohio river and east of the Alleghany the consumption of lumber is growing rapidly and yellow pine will perhaps command a lion's share of the trade.

FOREIGN.

The English markets, in the opinion of Denny, Mott and Dickson, of London, Eng., in their wood market report of February, "show no signs of emerging from the consistent dullness of last year, although the customary arranging of spring and summer import contracts has lent some relief to the general monotony.

TORONTO, ONT.

TORONTO, February 28, 1893.

Table with columns for CAR OR CARGO LOTS and YARD QUOTATIONS, listing various lumber types and prices.

Table with columns for HARDWOODS—PER M. FEET B. M., listing prices for various wood species like Birch, Maple, Cherry, etc.

OTTAWA, ONT.

OTTAWA, February 28, 1893.

Table listing lumber prices for Ottawa, Ontario, including items like Pine, good sidings, Elm, soft, etc.

QUEBEC, QUE.

QUEBEC, February 28, 1893.

WHITE PINE—IN THE RAFT.

Table listing prices for White Pine in the Raft, including items like For inferior and ordinary according to average, quality, etc.

RED PINE—IN THE RAFT.

Table listing prices for Red Pine in the Raft, including items like Measured off, according to average and quality.

OAK—MICHIGAN AND OHIO.

Table listing prices for Oak from Michigan and Ohio, including items like By the dram, according to average and quality.

ELM.

Table listing prices for Elm, including items like By the dram, according to average and quality.

ASH.

Table listing prices for Ash, including items like 14 inches and up, according to average and quality.

BIRCH.

Table listing prices for Birch, including items like 16 inch average, according to average and quality.

TAMARAC.

Table listing prices for Tamarac, including items like Square, according to size and quality.

STAVES.

Table listing prices for Staves, including items like Merchantable Pipe, according to qual. and sp'cf'n—nominal.

DEALS.

Table listing prices for Deals, including items like Bright, according to mill specification, \$115 to \$123 for 1st.

BOSTON, MASS.

BOSTON, MASS., Feb. 28.—There is some difficulty in getting at the true condition of the spruce market owing to the conflicting nature of reports coming from loggers and mill.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing prices for Eastern Pine—Cargo or Car Load, including items like Ordinary planed boards, Coarse No. 5, etc.

WESTERN PINE—BY CAR LOAD.

Table listing prices for Western Pine—By Car Load, including items like Uppers, 1 in., 1 1/2 and 2 in., etc.

SPRUCE—BY CARGO.

Table listing prices for Spruce—By Cargo, including items like Scantling and plank, random cargoes, etc.

LATH.

Table listing prices for Lath, including items like Spruce by cargo, Eastern sawed cedar, etc.

SHINGLES.

Table listing prices for Shingles, including items like Eastern shaved sawed cedar, 1st quality, etc.

OSWEGO, N. Y.

OSWEGO, N. Y., Feb. 28.—Cold weather is retarding trade to some extent. The general outlook, however, is encouraging.

WHITE PINE.

Table listing prices for White Pine, including items like Three uppers, 1 1/2, 1 1/2 and 2 inch, etc.

SIDING.

Table listing prices for Siding, including items like 1 in siding, cutting up picks and uppers, etc.

IX12 INCH.

Table listing prices for IX12 Inch lumber, including items like 12 and 16 feet, mill run, etc.

IX10 INCH.

Table listing prices for IX10 Inch lumber, including items like 12 and 13 feet, mill run, mill culls out, etc.

IX5 INCHES.

Table listing prices for IX5 Inches lumber, including items like 6, 7 or 8, mill run, mill culls out, etc.

SHINGLES.		
XXX, 18 in pine.....	3 70	3 90
Clear butts, pine, 18 in..	2 70	2 90
XXX, 16 in. pine.....	3 00	3 25
Stock cedars, 5 or 6 in..	4 50	5 00
No. 1, 1 1/4.....	2 65	2 85
No. 1, 1 in.....	2 00	
LATH.		
No. 2, 1 1/4.....	2 45	
No. 1, 1 in.....	2 00	

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N. Y., Feb. 28.—The continued cold weather is having a hurtful effect on the lumber trade as there is no possibility of outside work being carried on; while transportation is naturally impeded. There is at the same time a continuous demand for good lumber. A report of the past week tells of an enquiry for 500,000 feet of coffin stock, with no takers. Prices keep perfectly firm, and are not likely, from all one can learn from the producing centres, to show any immediate signs of relaxing.

WHITE PINE.		
Up'rs, 1, 1 1/4, 1 1/2 and 2		
in.....	\$48 00	50 00
2 1/2 and 3 in.....	56 00	58 00
4 in.....	60 00	62 00
Selects, 1 in.....	42 00	43 00
1 1/4 to 2 in.....	42 00	43 00
2 1/2 and 3 in.....	50 00	52 00
4 in.....	52 00	54 00
Fine common, 1 in.....	37 00	38 00
1 1/4 and 1 1/2 in.....	37 00	38 00
2 in.....	39 00	40 00
2 1/2 and 3 in.....	39 00	40 00
4 in.....	47 00	49 00
Cut'g up, No. 1, 1 in.....	29 00	30 00
1 1/4 to 2 in.....	35 00	37 00
No. 2, 1 in.....	19 00	20 00
No. 2, 1 1/4 to 2 in.....	25 00	27 00
No. 3, 1 1/4 to 2 in.....	18 00	19 00

BOX.		
1x10 and 12 in. (No 3 out)	14 00	15 00
1x6 and 8 in. (No. 3 out)	13 50	15 00
1x13 and wider.....	16 00	18 00
SHINGLES.		
18 in. XXX, clear.....	3 75	4 00
18 in. XX, 6 in. clear.....	2 75	3 00
LATH.		
No. 1, 4 ft.....	2 40	2 50
No. 2, 4 ft.....	1 95	2 00

ALBANY, N.Y.

ALBANY, N.Y., Feb. 28.—Little business is doing at this point just now for the reason that the lumber trade believe that a waiting policy is the paying policy. Confidence rules that higher prices will prevail at an early date and therefore it would be unwise to part with stocks at present quotations.

PINE.		
2 1/2 in. and up, good.....	\$55 50	\$60 00
Fourths.....	55	55
Selects.....	50	50
Pickings.....	45	45
1 1/4 to 2 in. good.....	52 55	55 00
Fourths.....	47 50	50 00
Selects.....	42 45	45 00
Pickings.....	37 40	40 00
1-in. good.....	52 55	55 00
Fourths.....	47 50	50 00
Selects.....	42 45	45 00
Pickings.....	37 40	40 00
Cutting-up.....	22 27	25 00
Bracket plank.....	30 35	35 00
Shelving boards, 12-in. up.....	28 32	32 00
Dressing boards, narrow.....	20 22	25 00
LATH.		
Pine.....	\$2 40	\$2 40
Spruce.....	\$2 40	\$2 50
SHINGLES.		
Sawed Pine, ex. XXXX.....	\$4 35	\$4 50
Clear butts.....	3 10	3 25
Smooth, 6 x 12.....	5 40	5 60

SAGINAW, MICH.

SAGINAW, MICH., Feb. 28.—Speaking in general terms there is no large amount of activity in the lumber market. An impression is strong in well informed circles that a further increase in prices is near by. Lumber that sold last season at \$14 straight now goes readily at \$16, and that quoted at \$18 to \$19.50 is now held at \$20 to \$23, while choice would bring \$26 to \$27.50.

FINISHING LUMBER—ROUGH.		
Uppers, 1, 1 1/4 and 1 1/2.....	45 00	45 00
2 in.....	46 00	46 00
Selects, 1 in.....	38 00	38 00
1 1/4 and 1 1/2.....	40 00	40 00
2 in.....	40 00	40 00
SIDING.		
Clear, 1/2 in.....	24 00	24 00
3/4 in.....	24 00	24 00
Select, 1/2 in.....	21 00	21 00
3/4 in.....	21 00	21 00
TIMBER, JOIST AND SCANTLING.		
2x4 to 10x10, 12, 14 and 16 ft.....	\$11 00	\$11 00
12 ft.....	13 00	13 00
For each additional 2 ft. add \$1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.		
SHINGLES.		
XXX 12 in. Climax.....	3 60	3 60
XXX Saginaw.....	3 40	3 40
XX Climax.....	2 25	2 25
12 in. 4 in. c. b.....	1 00	1 00
LATH.		
Lath, No. 1, white pine.....	2 25	2 25
Lath, No. 2, W. pine, Norway.....	1 65	1 65

NEW YORK CITY.

NEW YORK, Feb. 28.—As we commence to approach spring it is becoming quite plain that stocks of many grades of lumber are scarce and dealers will have to do some humping to keep up stock sufficient to meet every call. The demand for bulk parcels is healthy and growing. White pine is offered only in small quantities

and enquiries indicate that the supply is lighter than had been supposed. Box boards have run low, and renewed stocks are now being sought by dealers. The spruce market is fairly active.

WHITE PINE—WESTERN GRADES.		
Uppers, 1 in.....	\$44 00@45 00	20 00 22 00
1 1/4, 1 1/2 and 2 in.....	46 00 47 00	20 00 22 00
3 and 4 in.....	55 00 58 00	20 00 22 00
Selects, 1 in.....	40 00 41 00	20 00 22 00
1 in., all wide.....	41 00 43 00	20 00 22 00
1 1/4, 1 1/2 and 2 in.....	43 00 44 00	20 00 22 00
3 and 4 in.....	52 00 57 00	20 00 22 00
Fine common, 1 in.....	36 00 37 00	20 00 22 00
1 1/4, 1 1/2 and 2 in.....	38 00 40 00	20 00 22 00
3 and 4 in.....	46 00 48 00	20 00 22 00
Cutting up, 1 in. No. 1.....	21 00 23 00	20 00 22 00
Thick, No. 1.....	29 00 32 00	20 00 22 00
No. 2.....	24 00 26 00	20 00 22 00
Common, No. 1, 10 and 12 in.....	22 00 23 00	20 00 22 00
No. 2.....	20 00 21 00	20 00 22 00
No. 3.....	17 00 18 00	20 00 22 00

LUMBER CASUALTIES.

—George Hamlin, a Frenchman, working on the Magnifici, Que., was killed by a falling tree.

—Jas. Presley has received injuries of the right hand by it coming in contact with the saw at the mill at Kintore, N.S.

—Alex. McKechnie, a shantyman, of Lancaster, Ont., and at work on the Ottawa, was recently killed by a falling tree.

—Samuel Rathwell, a native of Cavan, Ont., was killed at Revelstoke, B.C., when at work in the big saw mill at that place.

—Thomas Ranson, of Lutterworth, Ont., received a severe cut in the thigh from an axe while at work in the woods near Minden.

—Alfred Dennis, of Kettleby, Ont., while engaged in felling tamarac was struck on the head by a falling tree and severely injured.

—Robert Lackey, while blocking timber in the sawmill at Berkeley, Ont., got his left hand caught by the saw, receiving an ugly cut.

—A shantyman named Cleary, working in McLachlan Bros., shanty near Aylew's Lake, Ont., had his leg broken by the dry stub of a pine tree.

—Hugh Kilpatrick, who went from Buckingham, Que., to the Michigan lumber woods a year ago, has been killed by a falling tree near Menominee.

—Wm. Ziegler, of Grey, Ont., was struck in the face while loading logs, receiving a severe gash in the upper lip and loosening a number of his teeth.

—John Cronkwright, an employee in the cedar mill, Deseronto, Ont., was struck on the forehead by the hammer of the pile-driver, inflicting an ugly gash.

—George Mann, while leaning over a circular saw in the planing mill of Robert Stewart, Guelph, Ont., adjusting the guide, caught his wrist in the saw and cut it badly.

—D. Cooper, a foreman of the Victoria Harbor Lumber Co. at Manitoulin Island, Ont., has died from blood-poisoning, the sequel to a number of boils with which he had been afflicted.

—Andrew Perrigo met with an accident when at work in Sellies Bros'. shanty at Round Lake, Ont. His axe striking a branch glanced off and gave him a bad cut on his left foot.

—W. B. Smith, of Comber, Ont., met with a bad accident when loading logs in the woods. The cant-hook slipped, causing a very heavy log to roll on him, jamming him between it and the other logs.

—John Kenny, jr., an employee of Haley Bros. & Co., of St. John, N.B., met with a serious accident while removing the belt from a planing machine. Both hands were badly crushed and broken and his face cut.

—A son of Zenas Rodenheiser, shingle mill, Summerside, P.E.I., was drowned by falling over an embankment into the mill dam. The unfortunate man was blind and had endeavored to grope his way along alone with the result stated.

—James Conroy, a well-known jobber for J. R. Booth, Ottawa, Ont., nearly lost his life while loading timber on the Madawaska river. He was struck a heavy blow on the side of the head, but happily it did not reach the temple. He is recovering.

—Frank Paradige is suffering severely from an accident received at Wilder's camp, township of Christie, Ont. While assisting to load logs a misplaced one gave way, crushing the lower part of his body beneath the great weight. It is doubtful if he will recover.

—Thomas Wiggins, a farmer, met with a fatal accident at Baird's sawmill, Markdale, Ont., by coming in contact with an edging saw which was in motion, but not just then being used. The saw caught him at the ankle going lengthwise up into the body and almost through to the shoulder. Death was almost instantaneous.

—A sad accident occurred in D. O'Callaghan's bush, near

Whitechurch, Ont. James Sharp and Hector McKay were engaged in taking down a tree, which, in falling, came in contact with another one, and the result was that the first tree broke in the middle and the top part fell back over the stump beside which the two axemen were standing. Sharp was killed instantly.

THE BANK AGAIN WINS.

The Privy Council has allowed the appeal of Bryant, Powis & Bryant v. La Banque du Peuple and dismissed the appeal of Bryant, Powis & Bryant v. the Quebec Bank. The case is one in which the Quebec Bank proceeded against Bryant, Powis & Bryant, a large timber firm of London, Eng., for paper discounted, for which the firm disputed its liability. This is the third trial of the case, the bank getting judgment every time.

TRADE NOTES.

The Gutta Percha & Rubber Mfg. Co., of Toronto, are sending to their customers a calendar of 1893 in the shape of a Maltese Cross, and printed in silver and black, silver and wine color, silver and red, each producing a very handsome effect. The business year of this successful concern dates from February to February of each year, and the calendar is modelled on this line.

The Cant Bros. Co., of Galt, have just brought out a panel-raising machine which will work panels on one or both sides at one operation. The machine is simple in its design and substantial in its framing. Various cutters can be used so as to produce square, bevel or ogee on the panel desired. The cutters have a drawing cut, thus making the panel perfectly smooth. The table moves up and down by handwheel. The machine is fed by hand and every care has been taken to make the machine all that could be desired.

The Hastings Shingle Company, whose advertisement appears in this month's LUMBERMAN, is one of the new mills recently built on the Coast. The specialty is shingles, and the equipment of the mill is well adapted for the manufacture of a good quality of shingles. It is located at Hastings on the main line of the C.P.R. and on the southern shore of Burrard Inlet where the deep water approaches render it a capital shipping point as well, and most convenient for the receipt of supplies of cedar from which the shingles are manufactured. The determination of the company is to excel in shingles.

The band mill grows in popularity among lumbermen. The upward jump timber limits have taken this last season makes it imperative that stocks should be cut in the most economical manner. The result is that many of the large mill-owners have placed their orders with the Waterous Engine Works Co. for their No. 2 band mills, using saws 12 inches wide and 14 to 16 gauge thick. Within the past week the Waterous Co. have shipped the second band mill to Davidson & Hay and a third is being shipped to Mickle, Dyment & Son, of Gravenhurst. With the Davidson & Hay shipment there is sent a full complement of band saw tools, eight 12-inch band saws, a heavy timber carriage with the Milne patent off-setting device, a heavy 4-saw edger and a 2-saw trimmer, and with the Mickle & Dyment band mill a heavy steel carriage, a full set of band saw tools and six 12-inch band saws. The eighth band mill for the season was sold to the Campbell Lumber Co., of St. John's, Nfld., being a complete band sawmill outfit. In other departments this firm also keep busy. A late mail brings a letter from the Pembroke Lumber Co. ordering for shipment in 30 days three boilers 60 x 14 and 20 x 24 engine, two pairs of oscillating engines for steam feed, several hundred feet of No. 1,075 giant chain for endless haul-up, shafting, pulleys, live rolls, etc.

COMING SALES.

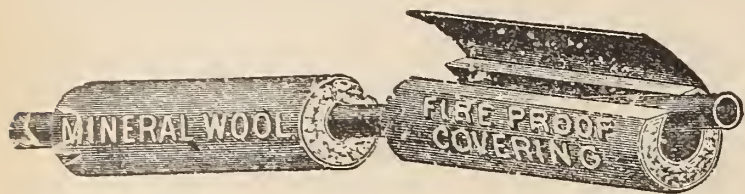
The mill property of A. McDonald, Point St. Charles, near Peterboro, Ont., is offered for sale by the owners. Also certain limits and logs.

Timber limits, mills and water privilege situate in the vicinity of Lakefield, are to be sold by public auction at the Snowden House, Peterboro, on Wednesday, March 15.

Alexander Fraser, of Westmeath, Ont., makes the preliminary announcement of a sale of timber limits on the Georgian Bay waters to be held in Toronto on April 27. Three valuable parcels are offered.

Much interest is being manifested in the sale of the Muskoka Mill & Lumber Company that is advertised to take place in Toronto on April 25. The limits are situated on the north and east shores of Lake Huron and are richly timbered with pine. Details of the berths are given in the ad. on another page.

The stock of logs at the Essex Centre mills, Ont., amounts to 2,500,000 feet, and that at Gosfield mill to 1,000,000 feet.



MINERAL WOOL STEAM PIPE AND BOILER COVERING

Saves enough fuel to pay for itself in one season.

Is Fire-proof, Frost-proof, Vermin-proof and Indestructible

CANADIAN MINERAL WOOL CO., LTD., 122 BAY ST., TORONTO

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. **ROBERT THOMSON & CO.**, 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write **J. E. MURPHY**, lumberman, Hepworth station, Ont.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. **TUCKER DAVID**, lumber commission merchant, 202 Eleventh Ave., N.Y.

WANTED-BY YOUNG MAN-SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care CANADA LUMBERMAN, Toronto.

FOR SALE.

ABOUT A MILLION FEET OF LOGS (AT mill) suitable for bill stuff, etc. Mill can be leased to cut them. Address "Lumberman," care CANADA LUMBERMAN, Toronto.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, I. and II., all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long. Address all particulars as to dryness, quality, quantity on hand and price, to P.O. Box 2144, New York, N.Y.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for same in the Eastern States-New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with **I.C.L.**, care CANADA LUMBERMAN, Toronto.

TO LET

LARGE PLANING MILL, WITH SHOP, MACHINERY, kilns, etc., in full running order, corner Niagara and Tecumseth streets, formerly occupied by Gall, Anderson & Co. Mill 60 x 160; two-storey shop 70 x 75; kilns 20 x 105. Power supplied. Railway sidings into premises. Apply—**N. V. KUHLMAN**, 107 Niagara St., Toronto.

Notice of Sale

—OF—

TIMBER LIMITS

THE FOLLOWING TIMBER LIMITS ON Georgian Bay waters will be sold by public auction at Toronto on

Thursday, April 27th, 1893

The exact hour and place will be announced later on.

PARCEL NO. 1.—Berth No. 5 in the Township of Patterson, on Lake Nipissing, near head of French River, 25½ square miles, more or less.

PARCEL NO. 2.—Berth No. 22 (sale of 22nd Oct., 1885), Township of Dowling, on Vermillion River, known also as No. 87 on map of 10th July, 1872, 36 square miles, more or less.

PARCEL NO. 3.—Berth No. 16 (sale of 22nd Oct., 1885) on French River, known also as No. 11 on map of 10th July, 1872, 36 square miles, more or less.

Terms and conditions made known on day of sale. For other information apply to

ALEXANDER FRASER, Westmeath, Ont.

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-HAND Boilers, Engines and General Machinery for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.

ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.

THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.

ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.

TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.

ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S MAKE.

TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.

ONE 6¼ x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.

TWO 5½ x 9 SLIDE-VALVE ENGINES, BECKETT'S MAKE.

ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.

ONE 15 H.P. ENGINE, English make.

ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.

ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:—

ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.

TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.

ONE GOLDIE & McCULLOCH THREE-SIDE moulder.

ONE ONE-SIDE MOULDER.

TWO 34-INCH WHEELS BAND SAWING machines.

ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.

ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.

ONE GOOD SHAPER.

SIX GOOD SAW TABLES.

ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.

ONE WOOD FRAME TENONER IN GOOD shape.

TWO UPRIGHT SWING SINGLE OR or heading machines, with jointers.

ONE ALMOST NEW GENUINE "BAILEY" gauge or handle lathe, with countershaft.

ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.

FOUR DOWELL MACHINES.

ONE 20-INCH WATEROUS CHOPPER COMPLETE with double elevators, equal to new.

FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

SECOND-HAND MACHINERY FOR SALE

One 16 x 32 square bed slide-valve engine, shaft 6½ x 10 ft., fly wheel 108 in. diameter, 8 x 6 rim, iron pulley 108 x 24.

One pair of engines, right and left, 16 x 20, can be used separately or together, with two large pulleys and fly wheel and connecting shaft.

Three boilers 48 x 14 with large domes, full fronts and all fittings, fixtures and stack.

One 56 x 14 boiler, comparatively new, has been in use less than a year, and several portable engines from 12 to 20 horse power.

WATEROUS, BRANTFORD, CANADA

Rochester Bros.

: : COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

SAW MILL AND TIMBER LIMITS For Sale.

THE UNDERSIGNED OFFERS FOR SALE His Mill Property, situated in the town of Peterboro, known as the Point St. Charles saw mill, together with piling grounds, pond, booms, chains, anchors, ropes, horses, harness, wagons, sleighs, shanty and driving outfits. Also, the Galway limits and about 15,000 pieces of logs on Nogey's Creek and Swamp Lake, composed of pine, cedar and hemlock. For all information apply to

A. McDONALD, Point St. Charles, Peterboro, Ont.

Sale of CANADA PINE TIMBER LIMITS

ON THE NORTH AND EAST SHORES OF LAKE HURON.

THE undermentioned Timber Berths and Mill Property will be offered for sale separately, at Public Auction, in the City of Toronto, Canada, on

Tuesday, 25th day of April, 1893

viz.: Berths Nos. 20 (sale of 1885) 69, 82, 136, 137 and 174 (the Township of Montgomery), containing in all 247 square miles of Pine Timber Limits in the District of Algoma, which have not been cut upon; and parts of the Townships of Gibson, Wood and Medora, containing 77 square miles of Timber Limits in the District of Muskoka, which have been cut over in parts; and the Saw Mill property situated on the Georgian Bay, at the mouth of the Muskoka River.

And also (by arrangement with the Collins Inlet Lumber Company) the two following Timber Berths, viz.: Township of Goschen, and Berth No. 59 in the Districts of Algoma and Nipissing, containing in all 72 square miles.

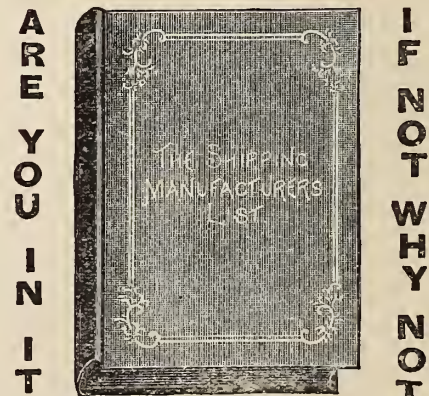
All the above Timber Berths water to the Georgian Bay.

Maps and full particulars of each of the above properties may be had on application to

THE MUSKOKA MILL & LUMBER COMPANY, Toronto, Canada. 24th February, 1893.

Manufacturers' Purse

A FREE-FOR-ALL RACE. NO ENTRANCE FEE.



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THE SHIPPING MANUFACTURERS' LIST, 34 Confederation Life Building, Toronto.

J. D. SHIER MANUFACTURER OF **Lumber, Lath & Shingles** BRACEBRIDGE, ONT.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

P.O. Box 2144, NEW YORK.

THOS. MCGRACKEN

(Member Toronto Stock Exchange)

BROKER & FINANCIAL AGENT DEALS SPECIALLY IN TIMBER LIMITS

No. 2 Victoria Street, Telephone No. 418. TORONTO, ONT.

J. J. TURNER

.. Sail, Tent and Awning Maker .. 251 George St. and 154 King St. PETERBOROUGH

Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.

Every description of Lumbermen's Supplies and Waterproof Clothing.

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Lumber and Commission Merchant

RECEIVER AND FORWARDER OF LUMBER, LATH AND SHINGLES

... CORRESPONDENCE SOLICITED ...

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Limits looked after at Reasonable Rates . . .

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Port Huron and Detroit

Is the Short Line to

SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)

MT. PLEASANT, CLARE, REED CITY

BALDWIN, LUDINGTON, MANISTEE

AND **MILWAUKEE AND MANITOWOC, WIS.**

The last two named are reached by the Company line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from **NEW YORK BUFFALO** and **MONTREAL TORONTO**

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GENERAL OFFICES: **SAGINAW, MICH.**

A Good Independent CONDENSER

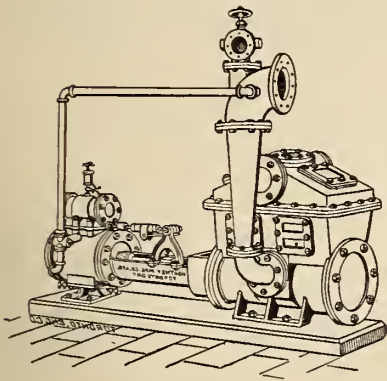
IS A PROFITABLE INVESTMENT
IF YOU ARE WORKING YOUR
ENGINE HIGH PRESSURE

DON'T DELAY, BUT WRITE US PROMPTLY

NORTHEY MFG. CO., Ltd.

MANUFACTURERS . . .

TORONTO, ONT.



OUR INDEPENDENT
CONDENSER

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Circular, 3m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Steam, Circular, 40m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 16m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	Stm., Band, Cir., S. 75m, Sh. 60m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Water, Band and Circular, 100m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	Steam, Circular, 25m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	Steam, Circular, 4m
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	Steam, Circular
Waubausene, Ont.	Waubausene	Georgian Bay Consol. Lumber Co. H.d. office arcade 24 King st. w., Toronto	Pine only.	Water, Band and Circular, 100m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	Water, Band and Circular, 100m
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Steam, Circular, 6m
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	Steam, Circular, 4m
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Water, Band and Circular, 100m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular, 25m
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Steam, Circular, 25m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	Steam, Band and Circular, 100m
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	Steam, Circular, 20m
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	Steam, Circular, 20m
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwoods, Whol.	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	Steam, Circular, 40m
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 20m
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	Steam, Circular, 20m
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	Steam, Circular, 20m
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	Steam, Circular, 20m
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Steam, Circular, 20m
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Steam and Water, Circular, Portable and Stationery, 10m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Circular, Gang and Band, 140m
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Com.
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Steam and Water, Circular, Portable and Stationery, 10m
Toronto	Toronto	DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail	Circular, Gang and Band, 180m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdws., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

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SHOWS A STEADY GAIN

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In Premium Receipts
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In Net Surplus

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COPPERINE

BEST MACHINERY BOX-METAL EXTANT. CANADIAN MADE & STUMPS THE WORLD. QUALITIES TO DO ALL YOUR WORK. HARDWARES ALL SELL IT. COOL BEARINGS NO HOT SHOES. EASY AS AN OLD SHOE. GENUINE SAFEGUARD FOR ENGINEERS. HIGH CLASS METAL.



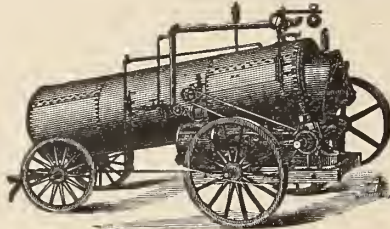
"BUILD TO-DAY THEN, STRONG AND SURE, WITH A FIRM AND AMPLE BASE."
— Longfellow.

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WISH THUS TO BUILD, an advertisement in the CONTRACT-RECORD, TORONTO will bring you tenders from the best contractors.

USE SPOONER'S BOX-METAL COPPERINE FOR SAW MILLS AND CIRCULAR SAWS. PLANING MILLS AND HEAVY SOLID WORK. OLD MACHINERY GOOD AS NEW. ALL SELL IT. PERFECTION IN THIS WORLD. PATENTED.

The MONARCH BOILER (Patented) and HERCULES ENGINE



Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.

The 70 horse power can be taken over the roughest roads, or into the forest, and set up as easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

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ROBB ENGINEERING CO., LTD.

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NEW & 2ND EDITION

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Most complete Book of its kind ever published

Gives measurement of a kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round timber; hints to lumber dealers; wood measure; speed of circular saws; care of saws; cordwood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stave and heading bolts, etc. Standard book throughout the United States and Canada. Get the new illustrated edition of 1882. Ask your bookseller for it. Sent post paid for 35 cents.

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CANADIAN LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

As announced in the last issue of the LUMBERMAN, we are now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF

THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA:

1893

Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank:

Power, style and capacity of mill:

Class of manufacture:

Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank:

Wholesale or Retail: Class of stock handled:

Post Office: Shipping Point:

Owners of planing mills, sash, door and blind factories, will please fill in following blank:

Power and style:

Class of manufacture:

Post Office: Shipping Point:

(Signed)

P.O.

Province.....

Address all communications to

DIRECTORY DEPARTMENT,
CANADA LUMBERMAN,
TORONTO, ONT.

Do You Lack Steam? We Can Help You THE CANADIAN HOLLOW BLAST GRATE

A new and novel application of a principle centuries old. Step into the nearest blacksmith shop and see it in operation on a small scale.

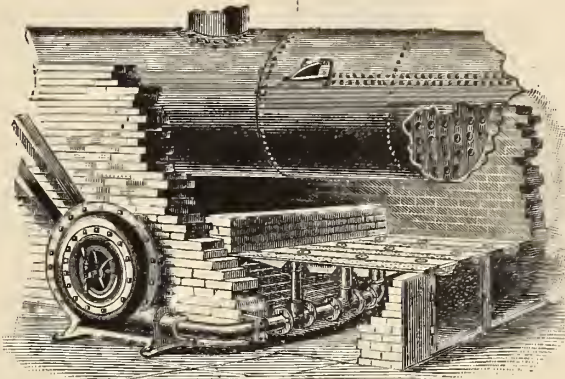
The Hollow Blast Grate supplies the furnace fire with a blast of hot air sufficient at all times to insure the rapid and perfect combustion of fuel of every sort.

It is the only appliance that steams successfully with green or wet sawdust, tanbark or other refuse and waste.

It alone has solved the problem of steaming with the fine, compact dust of the band mill.

Regardless of the character of your fuel, we can greatly increase the volume of steam generated in your boilers.

IT COSTS YOU NOTHING TO TRY THEM
WE GUARANTEE SATISFACTION OR NO SALE



Furnace Fitted with Hollow Blast Grates and Apparatus.

HUNDREDS OF TESTIMONIALS LIKE THE FOLLOWING:

"Your Hollow Blast Grates have given entire satisfaction. They give us all the steam we want and effect a great saving in valuable fuel. We cannot recommend them too highly."—MICHIGAN STAVE & BARREL CO., LANSING, MICH.

"Their work is simply marvellous. They saved us the expense of an additional boiler."—DETROIT HOOP & STAVE CO.

"After nearly two years' trial of your Hollow Blast Grates under 20 of our boilers we have experienced perfectly satisfactory results. We do not think any person or firm who lack steam can afford to be without them."—W. T. YOUNG & CO., Steam Gang Saw Mill, CLINTON, IA.

"We are greatly pleased with your Grates. We can make all the steam we require, no matter how wet our fuel is. For burning sawdust they are unequalled."—STEINHOFF & GORDON, WALLACEBURG, ONT.

"I do not consider a saw mill complete without Blast Grates."—AARON GORDON, DRESDEN, ONT.

"I put in a set of your Grates a year ago, and they pleased me beyond expectation. I spent hundreds of dollars in various contrivances to burn elm sawdust, but without success. I now burn all my dust. I can keep up better steam pressure than I could before with dry wood."—C. E. NAYLOR, ESSEX, ONT.

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A. ALLAN, President

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J. J. MCGILL, Manager

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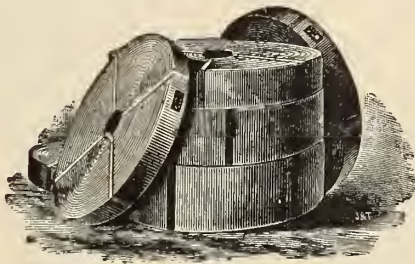
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Capital, \$2,000,000.00

of MONTREAL, TORONTO and WINNIPEG

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SUPERIOR QUALITY
RUBBER GOODS
for Mechanical Purposes
RUBBER BELTING, PACKING, HOSE



FORSYTH
Seamless Rubber Belting
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These Patents we control for Canada

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Best Cedar Shingles

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BUNDLES FULL SIZE AND COUNT. CLOSE PACKING A SPECIALTY. TRIAL ORDERS SOLICITED.

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DESERONTO, ONT.
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Endorsed by leading Architects
Absolutely Fire-proof Deadens Noise
Does not Crack on application of Heat or Water
About as Cheap as Wood or Brick
Weight one-third that of Brick

TERRA COTTA FIRE-PROOFING
For use in Old and New Buildings

Gives Warmth in Winter; Coolness in Summer

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The Whaley Lumber Co., Limited

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Manufacturers of

White Pine Lumber, Bill Stuff, Lath and Shingles
Also **HARDWOOD LUMBER**

All Orders promptly attended to First-class facilities for Shipping
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C. P. STOCKING, Treasurer.

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WE MAKE A ...
... SPECIALTY OF LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK
Quotations furnished on application

The Rathbun Company

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Doors, Sash, Blinds, Stairs

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CEDAR OIL for Purging Boilers

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ALL KINDS OF LUMBER

LUMBER SHIPPED TO ALL PARTS BY RAIL OR VESSEL

WHITBY, ONTARIO

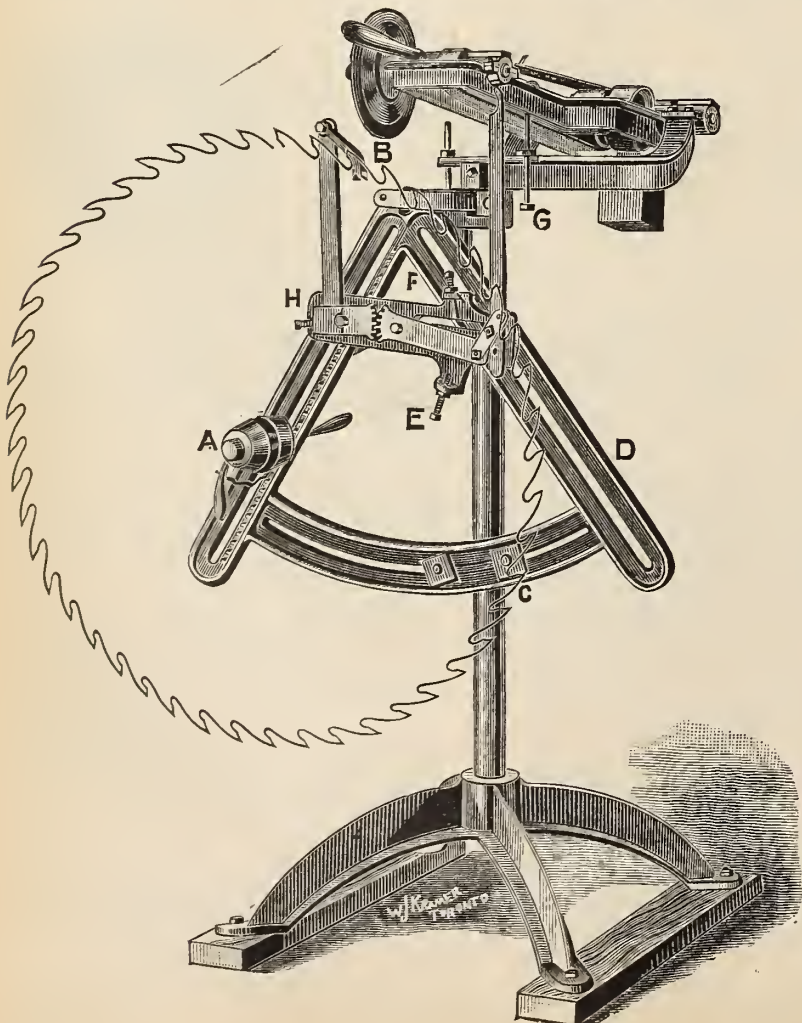
The XXX Saw Gummer and Sharpener

HAS NO RIVAL

FOR VARIETY, CAPACITY OR QUALITY OF WORK

OR FOR

SIMPLICITY, DURABILITY, CHEAPNESS



Will take saws from 6 inches to 6 feet diameter; sets the saw forward one tooth at a time automatically; sharpens any saw (rip or crosscut) perfectly, giving the teeth any desired pitch or bevel, and making all the teeth exactly alike. Will sharpen 20 teeth in an ordinary mill saw in one minute, or 100 teeth in a shingle saw in four or five minutes. The cut shows outline of mill saw 54-inch diameter.

GILMOUR & CO.

Lumber Manufacturers and Dealers

Trenton, Ont., 26th August, 1891.

F. J. DRAKE, Belleville, Ont. :

Dear Sir,—Your patent Saw Sharpener is giving us good satisfaction. We average about 100,000 shingles per day and sharpen the saws for both automatic and hand-feed machines with your Sharpener. As it keeps the teeth all perfectly uniform it must be easier on the machine and sawyer too. It causes also a great saving in files. We now only use about one ten-inch file per week. Before putting in your machine we used about six per week. As regards your Improved "XXX" Shingle Packer—it works first rate and is the only machine we could get that would press tight enough. We consider it the best we ever had.

Yours truly,

GILMOUR & CO.

MANUFACTURED ONLY BY

F. J. DRAKE,

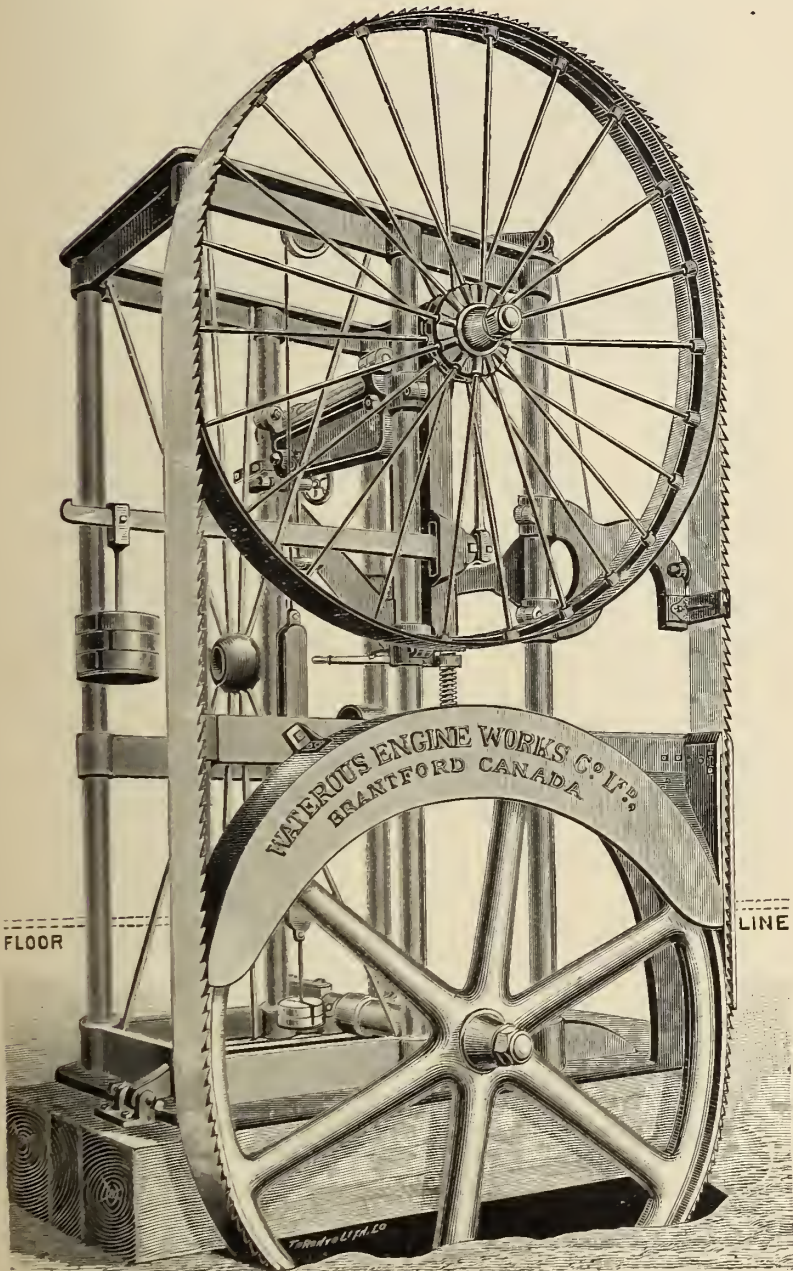
Belleville, Ont.

WE HAVE WASTED
E ARE WASTING
E WILL WASTE..

OUR GRAND
HERITAGE
OF PINE..

UNLESS THE BAND
SUPPLANTS
THE CIRCULAR..

A 14-GAUGE BAND SAW SAVES OUT OF AN 8-GAUGE
CIRCULAR'S SAWDUST PILE 5 ONE-INCH BOARDS ON
EVERY 32 CUT.



You'll Regret

if you start next
season without a

BAND MILL

EVERY YEAR'S STOCK YOU WASTE REDUCES THE PROFIT FROM
YOUR TIMBER LIMIT BOUGHT AT SUCH A HIGH PRICE

THE CHANGE TO THE
BAND IS INEVITABLE

Make it Now

ORDER YOUR MILL EARLY BEFORE THE RUSH AND
AVOID DISAPPOINTMENT

HAVING DECIDED TO CHANGE, INVESTIGATE THE MERITS OF OUR BAND MILL

"None Surpass the Waterous"

In Quantity and Quality of Cut

Rigidity and Steadiness under Motion

True Wheels Sensitive Tension

Fast Feed No Breakage of Saws

Fewer Detentions for Adjustment or Repairs

Nor in our Filing-room Tools

SEND FOR NEW BAND MILL CIRCULAR AND 5/32 BOOKLET

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NAPANEE MILLS, ONT.

MANUFACTURERS OF

STAR BRAND OF PORTLAND CEMENT

NONE BETTER; AND OF

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PARTICULARLY ADAPTED FOR DAMS, SMOKE-STACKS, FOUNDATIONS, CULVERTS, CISTERNS, CELLARS, ETC. LARGELY BEING USED IN THE ST. LAWRENCE RIVER CANAL. ENDORSED BY LEADING RAILWAYS AND CONTRACTORS.

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BREAKING STRAIN 6 IN. "CAMEL" HAIR BELT ----- 14,181 lbs.
" " 6 IN. ENGLISH OAK DOUBLE LEATHER -- 7,522 "

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Toronto, Ont.



Send for sample of our new SAWMILL BELT

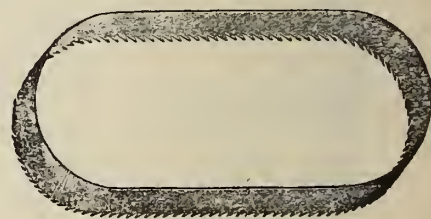
WHY BAND SAWS BREAK

SIXTEEN

REASONS,

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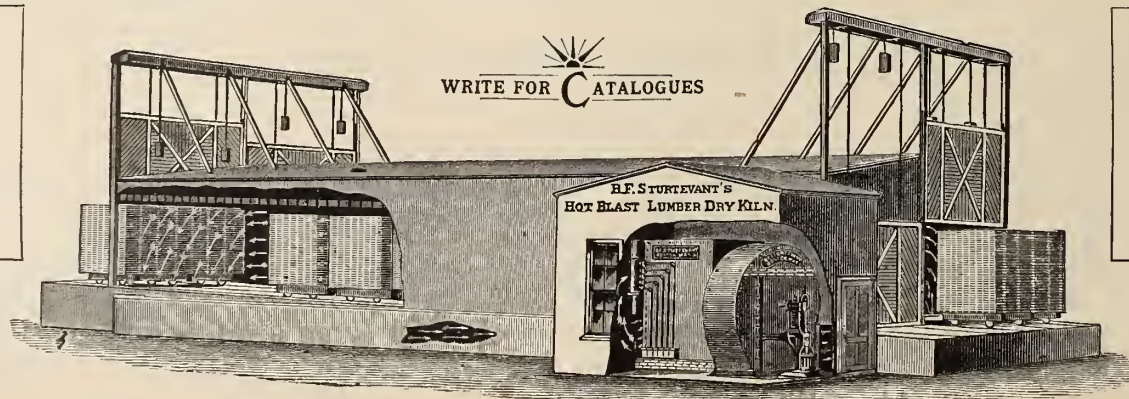
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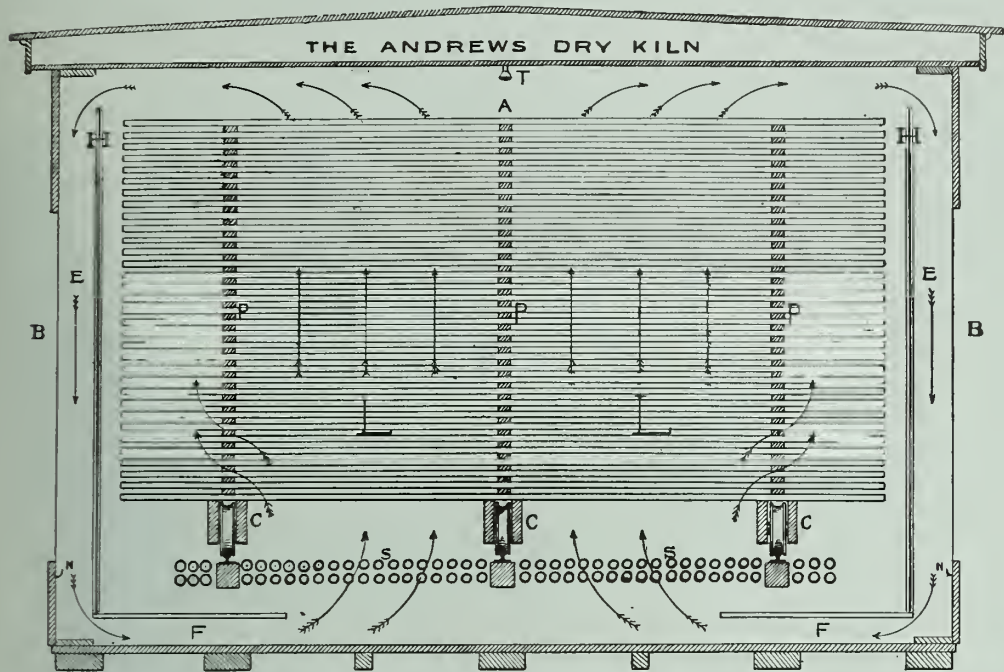
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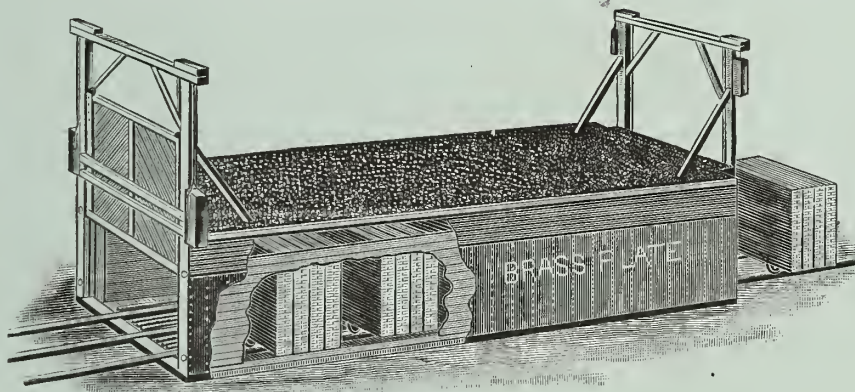
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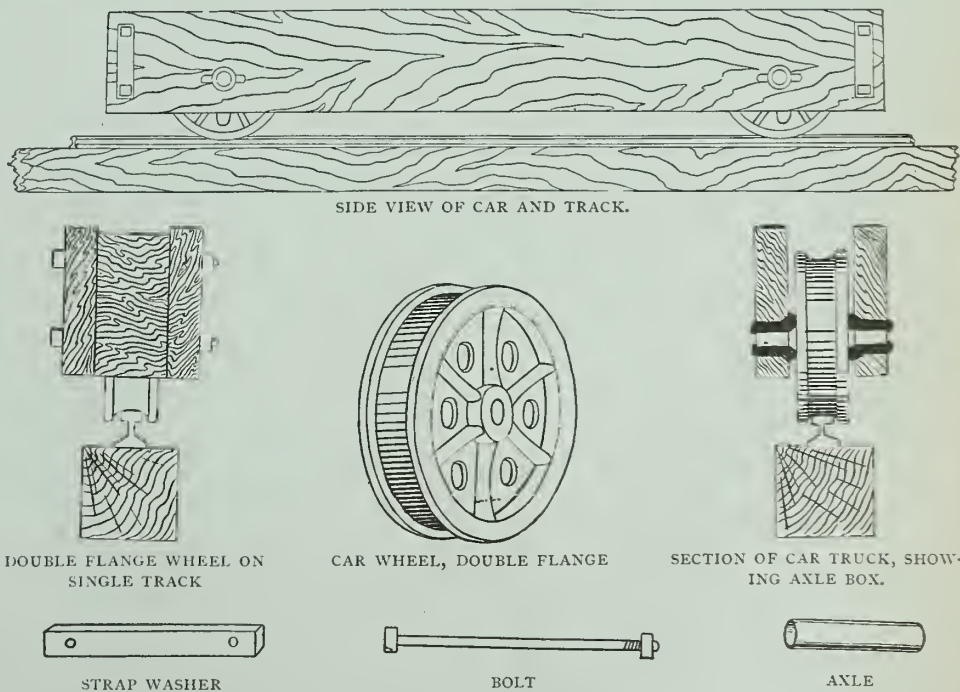
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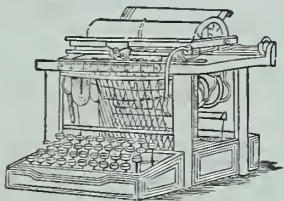
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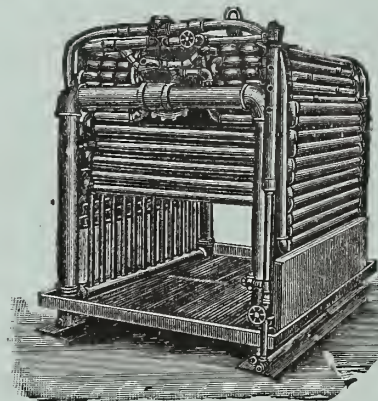
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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIV. }
NUMBER 4. }

TORONTO, ONT., APRIL, 1893

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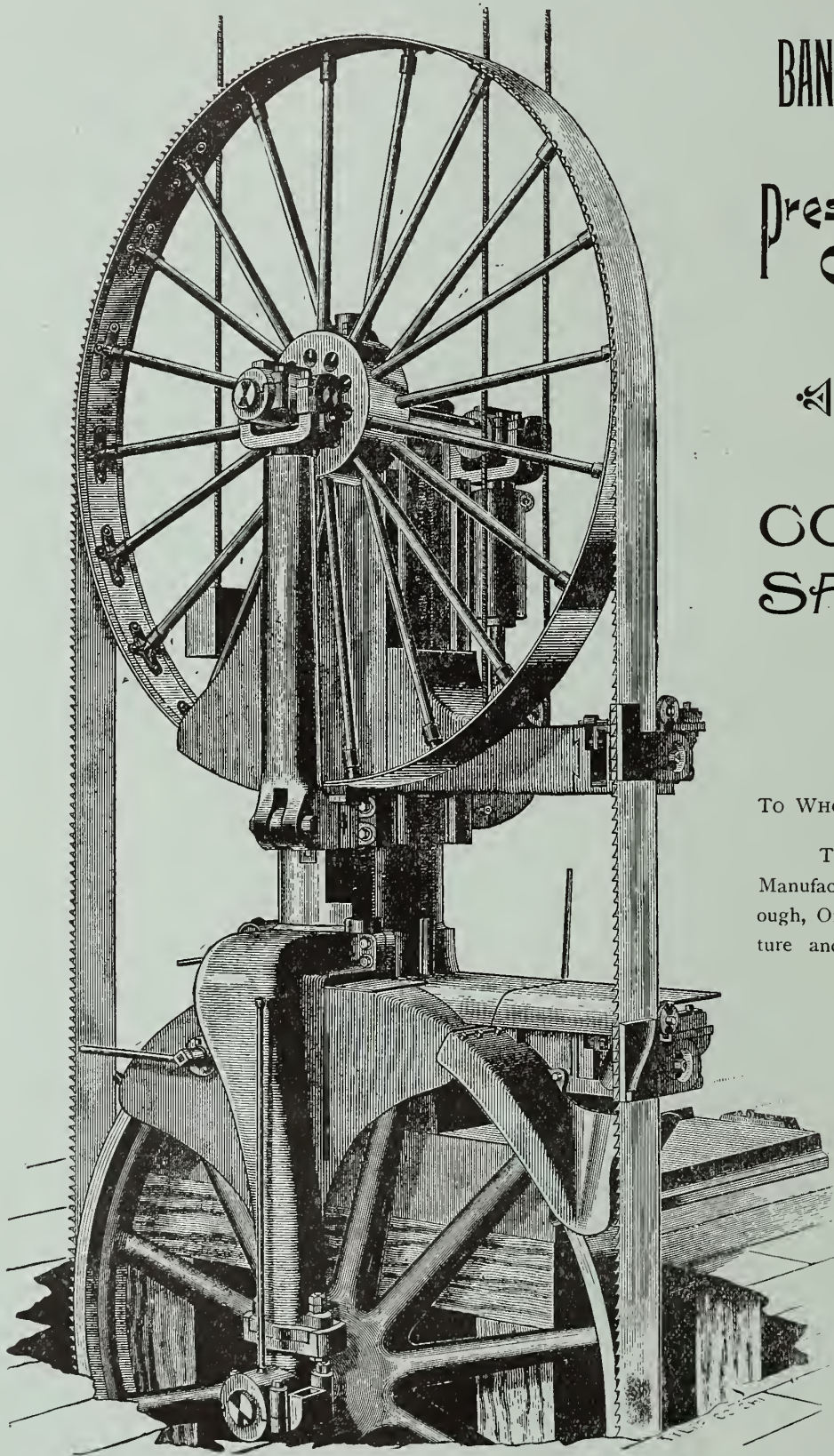
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(Signed)

D. CLINT PRESCOTT,

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Patentee

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THE CANADA LUMBERMAN

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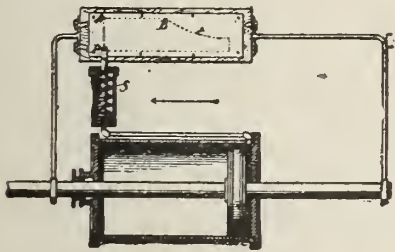
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THE INDICATOR.

IN a reply to an inquiry from several of our readers as to the action of the "Indicator" as used on the steam engine, says the *Northwestern Mechanic*, we have prepared the following cut and explanation, hoping that thereby the principle may be shown: although it must not be thought that the instrument used is anything like the one here shown; this merely shows the principle. In the cut will be seen the cylinder of an engine, showing the sectional view, and the piston being at the right hand end of the stroke.

The piston rod is extended out of the cylinder each way in order to make clear that the board above moves with the piston, in fact in this case is moved by it.

The board is shown supported by the arms which run up from the piston rod, and on the board is a sheet of paper tacked on to receive the card or tracing of the pencil, which is held in the place marked P at the upper end of the rod in the cylinder. It will be seen that a small pipe runs from the right hand end of the cylinder to the small cylinder and there is free connection between the small cylinder and the main cylinder of the engine.



THE INDICATOR.

The piston in the small cylinder is a neat working fit and is forced down by the spiral spring as shown at S. Now we will suppose that steam is admitted at the right end of the cylinder (the steam chest and valve being on the side in this case) and we see that the steam having free access to the small cylinder as well as the large one, will force the small piston up; and supposing this takes place before the piston of the engine has moved at all, the line that is drawn by the pencil will be perfectly straight as shown by the dotted line on the paper tacked to the board. Now that the piston has commenced to move, and the board moving with it, it will be seen that so long as the steam pressure in the cylinder (and indicator also) remains the same, the indicator pencil remains at the same height, and the line traced will be a perfectly straight line as from A to B. Now if we let the steam follow full stroke, the line will remain straight to the end of the stroke, but as this is not good practice, we cut off at half stroke. This means that when the engine piston has travelled half of its stroke the live steam is cut off, and the steam then in the cylinder expands, forcing the piston along but of course reducing the pressure as it advances.

As the pressure begins to fall, the spring in the indicator piston forces down the pencil arm, and remembering that the board is continually moving, we can readily see that the pencil will trace a curved line somewhat as shown. When the exhaust opens (we will suppose it to open and free the cylinder instantly) the pencil falls back to the original position, and on the back stroke traces a perfectly straight line. The dotted outline is called the card, and if we study it we can see that it represents the work the engine has done during the stroke, the height to which the pencil went as soon as steam was admitted, represents the pressure of steam in the cylinder at the beginning of the stroke. We also see that this pressure was maintained until the piston had made half its stroke, then the gradually falling line shows that the steam pressure was becoming less, owing

to the volume of steam contained in the cylinder being expanded to twice its normal volume, and finally we see the pressure line drop, showing that the exhaust was opened and the free escape of steam allowed. Then we see that the height of the diagram represents the steam pressure, the point where it begins to fall represents the point of "cut off;" and the height before the final drop, the terminal pressure, or pressure still existing when the exhaust is opened and discharged into the atmosphere.

These exact conditions do not exist in practice, but this will serve to show the manner in which they indicate the performance of the engine.

If we know the steam pressure as it is admitted to the cylinder, we can easily read the card intelligently, but if we do not, the card has much less meaning to us.

This is arranged in practice by having the springs "S," very nicely adjusted in the following manner. A spring is made that will be compressed exactly 1 inch with a pressure of 20 pounds, this is called a "number 20 spring," another is made that will be compressed exactly 1 inch with forty pounds, and called a "number forty spring" so that you can remember that the number of an indicator spring means the pressure required to compress it exactly 1 inch.

Now if we know that a forty spring was used in taking a card, and the card measures 2 inches in height, we know that the steam pressure, when admitted to the cylinder was exactly 80 pounds, and if the height of the line at the other end of the card is $\frac{3}{4}$ of an inch, we know that the terminal or exhaust pressure must be $\frac{3}{4}$ of 40 or 30 pounds. This makes the measurement of cards entirely practical if we but know the spring employed. Revising this operation we can see if we wish to indicate an engine whose boiler pressure is 90 pounds, and we do not want our card to exceed 2 inches in height, we use either 45 or 50 spring, usually the latter, as it is best to keep the cards reasonably small.

Of course with the primitive indicator as shown in our cut, we can only indicate the right hand of the engine, and would require two of this type to fully indicate the engine, but of the commercial kind in use to-day, it is possible to indicate both ends with the same instrument, by only changing the connection at the different ends of the cylinders. Now tracing the evolution from this crude indicator of ours to the finely finished one of the present day, we will see that the board as large as the cylinder is replaced by a very light cylinder or drum, and instead of taking the paper for the cards to a board, we simply fasten them around this drum. This drum is revolved at the proper time to be in unison with the engine piston, by being attached by means of a cord wound around the base of the drum, to some moving part of the engine, that gives the correct motion.

The movement of the piston in the instrument of to-day is usually multiplied by a very light arm carrying the pencil over the paper and otherwise being much more simple and compact than our crude instrument, but otherwise it might be called similar.

We will at some future time enlarge upon this subject, still in a very elementary way, for we believe that this is the part to be explained and that any who is desirous of learning in this any other branch has got the principle so that he can thoroughly understand it, he will need little further help in this way.

A LUMBERING AFFAIR.

MASTER of Ceremonies: Now, boys, be good, come Fourth and Select your partners. The Pickings are rich. The girls are Culled from the Upper-ten, and not one but that would grace a Box. All join in. We want no Shelving, nor Siding off in the corners. This is no Common affair. The Gang-saw to the Dressing of the hall, the Band-saw to the musical numbers, while the

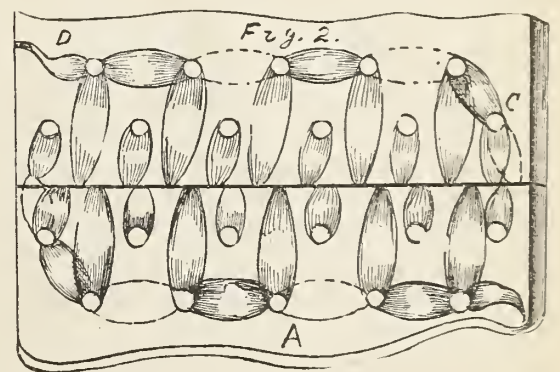
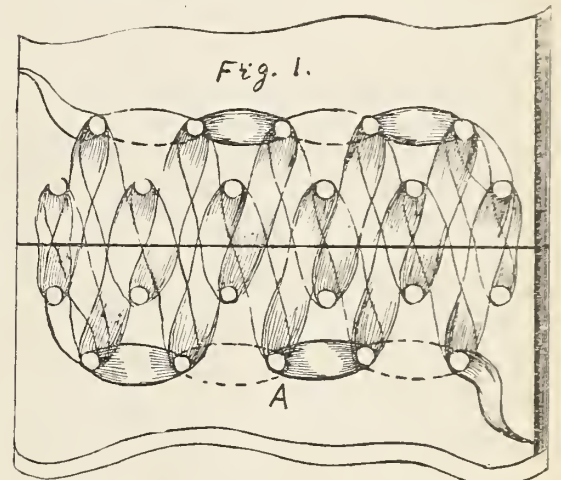
Jig-saw to the dancing programme. The supper will be served in Double Courses (being a Dry affair). Let there be no Cutting up at supper. The Inspector is Knot a respecter of Grades, and any one caught Edging Up will be Rejected, Marked Down and Thrown Out.—N.Y. Lumber Trade Journal.

BELT LACING AGAIN.

By J. H. MINER.

THE following sketches show styles of lacing that I illustrated about four years ago. Some asserted that Fig. 1 could not be laced as per cut, and appear exactly alike on both sides, without crossing. My only way out of this was to mail a sample to all who were interested; the result was that my postage bill greatly increased for some time.

Fig. 2 illustrates the celebrated hinge lace, which every practical man ought to be conversant with. I have run this lace for four years on a line-shaft belt without replacing it. The cross stitch, A, was replaced several times, but the lace proper was not removed, as if it was not necessary.



This cross stitch will not make the lace any thicker, as it should be well hammered down after being put on the pulleys. If laced too "scattering," it does not last well. The best results are obtained by punching not over $\frac{3}{8}$ apart, using a full $\frac{1}{2}$ -inch lace, and if the lace is very thin, and a small punch is used, $\frac{1}{2}$ apart for the holes is better, drawing the lace as tight as possible at C. If the lace is drawn in twice through each outside hole, it will add greatly to the life of shifting belts, as it completely covers or incloses the outside edge or end of the belt.

Fig. 1 I termed the "puzzler" face. It is quite difficult to those not familiar with it. The hinge lace is superior to it for small pulleys; the only advantage of it is that it can be applied quicker. If the users of the hinge lace will adopt the cross stitch, they will be surprised at the result. In all cases I hammer the lace as flat as possible. Time will flatten it, but a nice smooth joint from the start is preferable.—The Wood Worker.

SYMPOSIUM ON THE LOG DUTY.

POSITION OF "A" CRITICISED.

REJOINDER BY CANADENSIS.

THE symposium furnished your readers in the March number of your valuable journal recalls the wedding feast at Cana of Galilee, inasmuch as the better comes last. Or would it be more in accordance with the eternal fitness of things to say, first the bane and then the antidote. As a specimen of the argumentum ad ignorantiam, the communication signed "A" stands unique. The writer has determined to see no reason why the Canadians should be consulted in the matter of the export duty on logs. All his sympathy is for Yankee lumbermen and Yankee interests. To him Canada and Canadians are of no consequence, nor have they any rights of sufficient importance warranting a moments consideration.

Passing over the second paragraph, we come to the third with two misleading statements (1) prices here are regulated by United States markets, (2) the loss of over a million dollars. The prices paid here for Canadian lumber are not regulated by the United States markets. Anyone acquainted with the principles of political economy knows that the cost of production in this, as in every other article of value, largely determines the selling price. It is the veriest nonsense to maintain that, irrespective of this and other considerations, such as markets in various parts of the world requiring the same article. etc., the prices for lumber, above all other commodities, are fixed for us by one of many consumers.

Admit that one-half of the exported products of our forests is sent to the United States—we are strongly of the opinion that the amount is somewhat excessive—we must also remember that probably 60 per cent of that is, by the Americans, sent to foreign countries, and does not enter into their home consumption. This lumber exported from the United States comes into competition with our own direct exportation and the foreign markets to a certain extent regulate the prices for us as manufacturers and the Americans as go-betweens.

Had we no other markets, nor any other customers but one, then it could be understood how our prices would be regulated by that one; but as such is not the case the assumption that prices are governed by any one market is unwarranted.

The truth that the American is a middleman pure and simple, and buys to sell to foreign markets must not be forgotten. The question of prices is determined by the seller or manufacturer in the first place and the buyer or consumer in the last, and not by the one intervening.

It is apparent to every one who gives this question any attention that the very moment an export duty is placed on logs, the import duty of the United States will be taken off lumber and it will be admitted free. No fears need be entertained respecting an annual loss of a million dollars, nor that any lumberman who is cutting his timber will cease doing so for want of a purchaser, nor will there be fewer men employed, nor will the consumption of all that can be raised on the farms in the back country be any the less than at present. Many considerations can be adduced in support of this statement, principal among which are—the nature of the commodity, the ever increasing demand and constantly decreasing supply, the limited area from which it is to be obtained, the difficulty and time required to reproduce, and when reproduced its admitted inferiority consequent upon the changed environment, and the fact that Americans are purchasing largely of our limits. The pine of Canada is needed and must be had the world over. It is immaterial to the case whether or not in any one country the importation is a mere fraction in the market, the need and want is felt and must be supplied from the source of production.

Before any of the astute American buyers of limits purchased they no doubt made themselves perfectly familiar with every rule, law, etc., respecting the limits. They know that the Dominion government regulates trade and commerce; they know that there was an export duty on logs; they know that by an order-in-council that can be re-imposed; they purchased the timber sub-

ject to any order that may be passed in Council, now or in any future time according as exigencies might arise; all this is known to them, and any such exercise of the power inherent in our Government cannot be called a breach of good faith. The Dominion government never entered into any agreement not to impose an export duty on logs should they purchase timber. They bought subject to any act or requirement of the government of the country. To associate the term good faith with the name American betrays the grossest ignorance of modern English, inexcusable in any one at all familiar with current events. The name American is synonymous with bad faith, the grossest deception and the lowest forms of commercial immorality.

An export duty on square timber and waney pine shipped to Britain is not demanded for the simple reason, with others, that Great Britain does not exact an import duty. The conditions and requirements of the trade between Great Britain and Canada are such, that they do not come into competition with each other. Great Britain is a consumer of this article of commerce and does not buy from Canada to sell to the same markets as she does. Nor does Britain attempt to confine to herself the timber trade. Nor make our dealing with her contingent upon certain conditions; nor does she take the stand of an outlaw and thief and demand, on her own terms, that which does not belong to her, threatening, coward-like, instant destruction to the owner if the demand is not complied with.

To this time no arguments whatever have been advanced to show why an export duty should not be placed on all logs leaving Canada, but, on the other hand, every reason exists for the duty. It is denied that the Americans want, or more correctly, need our lumber. The mere denial does not alter the fact, that they do need, in the most intense signification of the word, our lumber; and the proof is so very positive and clear that not to acknowledge the fact shows either gross stupidity, or the denial is for some ulterior purpose, in this instance—evident.

If our lumber be not needed by the Americans why in the name of common sense are they purchasing so very extensively of our limits; why are they transporting our logs to their mills and manufacturing them there? Ten or twelve years ago little or none of this was done, as they had then a sufficient quantity of pine to supply the demand; but times are changed. Their supply of pine is practically exhausted and the demand has each year increased to so great an extent, that to meet it they are compelled to purchase timber in Canada. Their shipments to South America and other countries are very large, the bulk of which is Canada lumber. They are pushing the trade everywhere possible and know right well if lumber cannot be purchased by them in Canada, that trade will pass out of their hands.

It cannot be denied that at the present writing Canada is over-run with these American buyers, eagerly anxious to purchase and purchasing. Many of them are holders of extensive limits, and as stated by one of them, will soon be the owners of all the pine to be obtained. For this reason, as well as others mentioned above, an export duty should be placed on logs whether the United States take off their duty or not. The action of our government should not be regulated by any consideration of what may be done in the premises by the American government. In allowing our logs to be taken from Canada to be manufactured elsewhere, we are trading with the simple production of the earth, upon which no time, care, nor skill has been expended in the cultivation; a form of trade more suited for a semi-civilized race, than for a people to whom the teachings of all great commercial countries are known.

In so trading, such productions having well defined bounds, we limit our commerce, prevent the growth of industry, and the acquiring of skill, inventive and other, and most of all compel the most promising of our youth to leave their country, and seek a more congenial clime for the development of their nascent powers.

The numerous articles of commerce, into which timber, as well as our mineral products enter, could be manufactured in Canada, affording employment to thousands, increasing our wealth, extending our commerce, expanding the inventive faculties of our youth, adding to our material and intellectual prosperity, and spreading

among us a higher knowledge of the arts and sciences. As it is we are impoverishing ourselves, retarding our progress, and enriching a boorish, selfish neighbor.

CANADENSIS.

REJOINDER BY WM. LITTLE.

I HAD intended sending a reply to controvert the absurdities contained in an article which appeared in your last issue over the signature of "A," but that I recently received a copy of a speech, or rather a travesty, on the subject of the export duty on sawlogs, delivered in the House of Commons by John Charlton, M.P., of which this article is evidently a synopsis, for I see that it begins with one of this gentleman's fallacies about the re-imposition of the export duty on sawlogs, as he says: "Entailing a loss of over a million dollars annually in the shape of additional duty paid into the United States Treasury," the absurdity of which may be seen when the whole duty on our pine lumber going to the States is but half this amount. Even if we had to lose the whole of the duty, which would not be the case if we withheld the logs, or exacted the \$2 export duty, for then they would ask this much more for the lumber made from these logs, and actually enable us to advance the price of our lumber above the additional duty. This is, however, about as near as this gentleman's random shots usually are.

Then he enlarges in the most doleful manner on the calamity to befall the Canadian lumber trade when the Bill, introduced for Buncombe only, by Mr. Charlton's Bogie Man, Weadock, became law, sometime in the Greek Calends, which is to add the export duty to the import duty, and compel the American people to pay \$4 duty on Canadian white pine lumber, and which would receive consideration from Congress just long enough to throw it into the waste basket. The American lumbermen are not so dearly beloved by the American people that they would submit one minute to an imposition of this kind in order to enable their lumbermen to "rob" us of our timber, the expression used by an hon. gentleman who recently occupied the place now filled by Mr. Weadock, but who would have nothing to do with such rascally work. The American people, on the contrary, would be delighted if we did not let these lumbermen have a single log till they permitted Congress to remove the duties from Canadian lumber, a measure they will do their utmost to prevent so long as we are so idiotic as to let them have the logs free without doing so. Their whole excuse, now that they are running out of timber, is that from the fact they now get the logs free they can give their people free lumber without removing the duties on what we manufacture.

"A" seems to think that I have some special theory on the subject of duties different from the ordinary run of people, but I beg to assure him I have none; and when he talks of mill culls selling at Bay City at \$7 and that they only fetch \$6 on the Georgian Bay, I don't dispute him in the least, except that I believe the prices quoted a little too low. I simply mean that I think they would probably fetch even \$7 on the Georgian Bay if Bay City had none to sell at \$7 or at any other price, which is the exact condition in which matters would now stand if we had not, as it were, bonussed over to Bay City more sawlogs last year than Bay City has now on hand of sawn lumber of all kinds, including mill culls. That's all the theory I have on the subject.

"A" has my thanks, however, for the special notice, as also for supplying the truly gratifying intelligence that this rascally free log exporting business has not yet entirely ruined Midland, it has only closed down already four mills there, which, I believe, is about four-fifths of the milling industry; this done in two years gives just six months' grace to close the remainder, so I presume we should be truly thankful that it is no worse. There is this at least to be said in favor of the working of this free log exporting business, that if it is a little painful it is not very prolonged. But, that we may rest fully assured that "A" is not the least niggardly in the matter, and that he is in fact "as mildly mannered man as ever scuttled ship or cut a throat," is at once apparent from what he says, for "all he asks is to be let alone and not interfered with, to allow the logs

to go out of the country unmanufactured, and, if the matter is left to itself, there is every indication that the difficulty will be solved satisfactorily to everyone" in the sweet by and bye.

"To be let alone and not interfered with" was, I believe, all the fox asked when caught alone at night in the hen roost.

No, "A," you and your preceptor, Mr. C., have had things your own way quite long enough. You have already had two years "free logs" and have never raised your hands to give us "free lumber," and we have no right to ask Mr. Cleveland to pull your chestnuts out of the fire; so you must expect to walk up to the Captain's office and pay your log export duties like little men, and when you get the lumber duties removed our Government will, I have no doubt, consent to again remove the export duties, even if the changes in the rates of export duties should appear a little tiresome, as Mr. Charlton remarked.

When you had the timber and could dictate to us you insisted that \$2 a thousand was only "a very moderate measure of protection to the American milling interest;" of course, to give this moderate measure of protection to the Canadian milling interest, our export duty on the logs should be \$4; but we don't ask any protection, we simply ask \$2 on the logs to offset the \$2 you insisted should be imposed on the lumber by your carefully worded proviso, otherwise we should only be compelled to ask \$1 export duty, and now that the tables are turned and we have the timber, we simply ask you to remove the lumber duties, which you are responsible for, and till you do so, to take a little of the medicine which you thought so necessary for our health when you prepared the prescription.

MONTREAL, Que.,
March 25th, 1893.

WILLIAM LITTLE.

TRANSMITTING STRENGTH OF SHAFTING.

A WRITER in the Mechanical News says: The use of extremely heavy shafting is not advisable under any circumstances unless actually needed to perform the work required. Some imagine that a large shaft affording a very strong margin of safety, is the most economical to use; that, however, cannot be considered a logical and mechanical position, unless tempered with sound judgment and much wisdom, sufficient of both to select properly. That there should be ample margin of strength no one will attempt to deny, but shafting multiplies in strength so rapidly as sizes increase, that the unlightened are apt to make the selections much too large when aiming at only ample strength margin. To show how easily uninformed mechanics may make mistakes of that kind, it is only necessary to say that a three-inch shaft has nearly three and a-half times the transmitting strength of a two-inch shaft. None unaware of the fact would ever guess at that difference and may fall into the error of selecting a three-inch shaft to safely do the work of a two-inch. To more forcibly illustrate the difference, it can be stated that a two-inch shaft properly sustained with bearings at reasonable intervals will safely transmit 20 horse power at 100 revolutions per minute, and at the same time resent the transverse strain due to weight of pulleys and the pull of belts necessary for transmitting that much power. Under like circumstances and equally proportionate condition, a three-inch shaft will just as safely transmit sixty-eight horse power at 100 revolutions per minute. Shafting should never be so large as to make it absolutely rigid; on the contrary, it should be to a fair degree elastic, with an ability to give and take between the power and the work. When too rigid, unless above all requirements in size and strength, the liability to break is increased, especially if the work is of an abrupt and severe character. Long lines of shafting having the power at one end and the work at the other, should be graduated in size; the work and being of a size required to safely do the work and the power end larger in proportion to the length of the shaft or the distance between power and work. If such shafts be of the same size the entire length, and that of a fair working size only, there will be too much elasticity in the aggregate which will tend to gradually weaken, distort and in the end destroy the usefulness of the shaft.

VIEWS AND INTERVIEWS.

Felling Timber.

Spaniards dislike to fell trees or cut live timber of any sort, and this fact perhaps accounts for the giant trees of California. The Spaniards, two centuries ago, pushed their way through Mexico to California, and, save the clearing of paths through the dense forests, not a twig did their axes chop down. Nor do the Spaniards transplanted to this continent ever destroy timber. With stubborn pertinaciousness strangely at variance with their lethargic dispositions, they continue to build their houses of stone and mortar at great expense of money and physical exertion, when timber in abundance surrounds them out of which they could construct log houses, as did other pioneers, at a minimum of cost and labor. Why, the Spaniard does not even fell trees for firewood, but picks up dead limbs as they fall to the ground, or pulls them from the trees with his lariat.

Business Use of Slang.

In business, and especially in trade advertisements and announcements, increased force, and the kind of force that sticks, will be given to the whole ad., sometimes, by the use of an expressive colloquialism, which is often only another term for slang. "Ah! yer trolley's off," contemptuously sneered a scrubby little newsboy on King street the other day to a companion with whom he was endeavoring to straighten out a difference of some kind; "and 'your trolley's off,'" remarks a writer in a daily paper, "is getting to be pretty generally used to express what has been indicated by 'You're off your base.' If Macauley or Charles Lamb offers anything more terse or pithy that would express to every one just what every one understands by 'You're trolley's off,' it would be worth quoting. Slang is perhaps richer in the history that touches the life and experience of all the people closely than most other words. Future generations may know the exact date when the trolley was first used, but if they could discover just when 'Your trolley's off' came into vogue they would know better when electric trolley cars began to be in general use and common to the people."

The Tallest Trees.

The Kew Bulletin tells us that "the tallest gum trees and the tallest trees in the world are found in the gullies of Victoria, several trees having been measured that were 400 feet high, and the highest was 471 feet." Visitors to the Indo-Colonial Exhibition will remember the size and beauty of other Australian woods, especially of the specimens exhibited in the Queensland court. The finest tree in the world is said to be the Agassiz, one of the Sequoia gigantea, 31 feet in diameter, nearly 300 feet in height, and of remarkable symmetry. At the Paris Exhibition of 1878 there were shown no fewer than 2,530 specimens of wood from India, belonging to 906 species and 432 genera. And a more recent exhibition, that held in Edinburgh in 1884, made us acquainted with the glories of the Japanese woods, and those of the Adaman and Nicobar Islands. Go to the East India docks and you will see the huge logs of padowk (*Pterocarpus Indicus*), a tree rivalling mahogany in the depth of the color of its wood and the density of its texture. Here, too, the stinkwood, the *Oreodaphne bulata* of South Africa, vies, in spite of its ill-chosen name, with the teak (*Tectona grandis*) of Burmah and Malabar. Or, if you prefer to see growing timber, cross over to Germany and note the massive beach trees of Hesse Nassau, whose branchless stems contain no less than 19,525 cubic feet per hectare, or nearly 8,000 cubic feet of timber per acre.

Hot Heads in Business Hats.

Many an important commercial transaction has been brought to an abrupt and unfortunate termination by a hasty word spoken. One writer has said: "A good temper is better than a legacy or a public pension." In the handling of the affairs of business there is hardly any calculating how far a persuasive and politic tongue counts. And the shrewd man of business is not unfrequently outwitted by his less capable rival simply because the one differs from the other in knowing how to

keep his temper. Fred. Woodrow, in *Age of Steel*, has put the case in this way: "A business man with no bridle on his tongue or his temper, is as much out of place in commercial or industrial life as a mouse is in a street car, or a match in a powder house. No business can be run on hysterics and sulphur except that of a publisher of dime novels or a politician, or a demagogue on a platform or in a pulpit. Whoever heard of spasms in arithmetic, or of bile in percentages, or of a hot head in a business hat being the better for a stoker in his brain? It is true that bad tempered men often succeed in business, but in most cases it will be discovered that there is a cool head and a calm hand between the match and the straw. Anger is one thing, and irritability is another. No man can be blamed for making a protest against an employe who makes an easy chair of his work bench or a botch of his workmanship, or who boils over occasionally when imbecility demands a salary, but as a rule it serves its purpose best when wisely controlled and decently exhibited."

Cheapening Production.

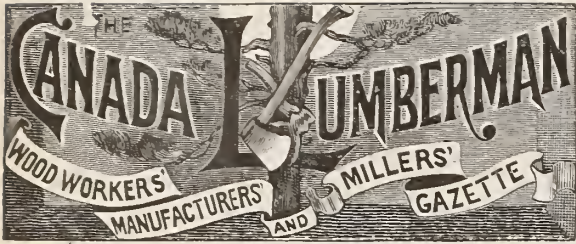
As indicating the trend of the age it is doubtless true, as some one has said: "That never before has mechanical genius applied itself in this country as now to the solution of the question, how shall the cost of production be further decreased by the introduction of more efficient machinery? This is the keynote of the manufacturers who are now most successful. The search for specialties is not alluring, as specialty competes with specialty, and consumption is perforce limited. In staple articles, however, there is a constant trade. The manufacturer, therefore, who surpasses his fellows in the cheapness with which he can turn out staple articles of equal quality surpasses them also in securing a large share of the trade and better profits." Perhaps there is no use in kicking against the pricks, and necessity, the mother of invention, having driven trade to this resort, it will remain there until ejected by some more potent force. This force, it may be, will be the revulsion of sentiment that is already brewing, against the substitution of the imperfect, the nasty, the slipshod, that in many cases is accompanying this cheapening of production. Or it may be a labor revulsion; for the demand of the consumer for cheapness and bargains in everything is forcing down prices of certain kinds of labor and the parent of the sweating system in many large cities is not the so-called sweater, but really the great mass of individual consumers, who insist on having cheap goods regardless of who suffers, even though it be their own neighbors and relatives.

PERFORATED BELTS.

A N engineer has been enquiring of us as to the value of belts perforated with holes. The argument of the dealer is, that the air is let out through these holes from under the belt, and being thus excluded, atmospheric pressure must be excluded, and the pressure of the atmosphere upon the pulley will help to secure a firmer grip without further tightening. This is on the supposition that the air is carried under the belt in the rush of the belt on the pulley. This engineer does not want to pay for perforated belts if they do not do what is claimed for them, and yet he wants all the adhesion he can get with the least tightening. We do not believe that atmospheric pressure has anything to do with the driving of belts, and has no part in causing them to adhere to a pulley, whether perforated or not. It has been found that at high speed belts do not adhere so well to pulleys as at a slower speed, and this has been claimed due to the air getting between the belt and pulley at the high speed and preventing less adhesion from atmospheric pressure. It can be quite clearly demonstrated that the centrifugal force of the more rapidly moving belt counteracts to some degree the adhesion of the belt and causes it to adhere so firmly. This is the cause of this peculiarity, not the taking of air under the belt.

NEW MEXICO TIMBER.

The forests of New Mexico cover an area estimated from 5,000,000 to 7,000,000 acres consisting mainly of pine, but with considerable quantities of spruce, with some walnut, ash, hickory, etc.



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—BY—

ARTHUR G. MORTIMER

OFFICE.

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J. S. ROBERTSON, - - - EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

THAT BIG LUMBER COMBINE.

WELL informed lumbermen do not attach much importance to the rumored combine of United States and Canadian lumbermen, constituting, what would practically be, a corner in lumber in Canada. As Mr. W. C. Edwards remarks in our Ottawa correspondence, it is much easier to secure a corner in grain than in lumber.

Two or three sales of Canadian limits, representing considerable value, are announced for this month. These have brought a number of United States lumbermen and their agents to Toronto, and from here they have in most cases proceeded north to the region of the limits to investigate conditions. Besides, there are constantly passing through Toronto to the lumber districts in the interior, agents of various Michigan firms, who are already interested in Canadian limits. This has been especially the case during the winter just closing because of the number of these owners who have been working their limits. The bright young men of the daily press anxious to make a "scoop" have got after these men, made their acquaintance at the hotels, and worked them for a news item whenever opportunity presented itself.

Lumbermen are made of pretty shrewd stuff, and they are not the kind of men to give their business away, usually. Withal, they are genial and companionable, and are, if leisurely situated, ready to talk. Sometimes they have given these young men an item or two of news; at other times they have simply talked guff, knowing it to be guff. An instance in point: A big burly lumberman, who is a hail fellow well met; not a limit owner, but a shrewd, practical woodsman, who has passed through most of the gradations of a woodsman's life, from the felling of the tree to the more important occupation of a landlooker, was in the city a few weeks ago. He was here for the purpose of looking up some limits that were for sale. The newspaper young man got hold of him. Our lumberman friend talked freely. "Yes, the Americans were buying up the country, espe-

cially that part having any timber on it. He held in his pocket the option on a large tract of Ontario timber and in the interests of an important syndicate he was leaving the next day to make an examination of the limits, and the whole business would be closed up quicker than one could say Jack Robinson."

The fact is your lumberman was going north on an entirely different mission, and it served his purpose to use our friend of the daily press to throw some one else off the scent. That is all there was in at least one of the big stories of the combine that was given currency to lately. Mr. Elsemore, of Saginaw, who would likely know something of the alleged combine, was about right when, asked in regard to the matter, he said: "I guess all there is in it is what we have seen in the papers."

A month ago the newspapers of the United States started the story that a great meeting of spring wheat millers had been held in Chicago, and a "gigantic flour trust" had been formed. The news was telegraphed all over the country and papers at home and those abroad heralded it in big headlines and with various editorial comments. The despatch proved a catchy item for the newspapers for something less than the proverbial nine days. An investigation of the rumor by those most interested and more certain to know showed that the Chicago meeting was a very tame affair, and without any significance, and, as for the big trust the millers are waiting to see it materialize.

We live in a day when newspaper rivalry is keen; and we live in an age when readers look for spice and sensation. If a lumber or a flour trust can be made to fill the bill it answers for the occasion just as fitly as the latest suicide or defalcation.

WHITE PINE.

TWO replies to the article on the log duty by "A" in the March LUMBERMAN will be found on another page of this month's issue. On the principle that there are two sides to every story readers will admit, we believe, that some good points are made by both Canadensis and Mr. Little. The real point of discussion hinges largely on the belief, or the opposite, that there is no other timber to take the place of northern pine. And this pine being nearly exhausted in the white pine states of the United States our neighbors must look to Canada for their supplies. Opinions will differ here, and it is difficult to produce that kind of evidence which everyone can comprehend readily. In another part of this month's LUMBERMAN we publish an interview with a lumberman, of Tonawanda, N. Y., who lays great stress on the value of southern pine as a substitute for northern pine. It is also claimed, and a paragraph touching the matter is found on another page, that in New Mexico immense tracts of good white pine exist.

Then comes another question, which is quite debatable, and hard to solve to the satisfaction of many, whether the white pine of Michigan, Wisconsin, Minnesota or Canada has as yet nearly reached its limit of exhaustion, as is alleged to be the case by some. How hard it may be to arrive at the correct quantity of timber on a given tract of land is illustrated in negotiations for a recent purchase of timber land in Michigan. Three estimators were put on the job. Their separate estimates per acre ran thus: 25,000, 40,000 and 50,000. The totals were, of course, just as wide apart, thus: 40,000,000, 64,000,000 and 80,000,000. Somebody was evidently out, and what may occur in the estimate of an individual tract of land, may find its counterpart in the larger estimate, which after all is only an aggregation of the individual estimates.

LUMBERING IN BRITISH COLUMBIA.

THE Timber Inspector's report, of British Columbia, which has just been published furnishes an interesting account of the progress of lumbering on the Pacific Coast. The total quantity of timber cut during 1892, and which is subject to royalty, is 64,186,820 feet, and the royalty thereon is \$32,093.41. Rent from timber leases during the year amounts to \$31,673.63; thirty-four special timber licenses at \$50, representing \$1,700 and ninety general timber licenses at \$10, or \$900. The total revenue from timber sources foots up \$66,367.04. There have been issued thirty-four timber leases, covering

112,694 acres, the rental being \$11,269.40. The acreage leased for timber cutting in 1886 was only 23,012, showing in six years a very encouraging development of lumbering operations.

An analysis of the amounts paid in royalty by the different lumber companies, shows that the British Columbia Mills, Timber and Trading Co., of Vancouver, contributed \$12,033.92, or nearly a half of the whole. The Island mills paid \$10,303.83 and the Mainland mills \$21,789.58 of the total. The percentage in regard to rentals, licenses, etc., as between Mainland and Island, is about the same. The acreage of timber lands held by the mills is 386,122, of which in round figures 85,000 acres are held by the British Columbia Mills, Timber & Trading Co.; 50,000 by the McLaren-Ross Co.; 32,000 by the Moodyville Saw Mills Co.; 32,000 by the Vancouver Saw Mills Co.; 22,000 by the Brunette Saw Mills Co., and 20,000 by the Michigan Lumber Co. The remaining acreage is divided among smaller mills on the Mainland and Island. The total daily capacity of 41 of the 54 mills in the Province is set down as 1,657,000 feet.

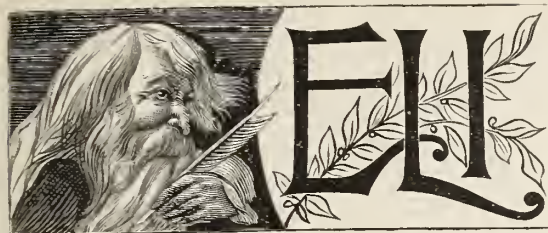
The Provincial Secretary has issued a notice to the effect that after the 1st instant a rebate of 25 cents per thousand feet will be allowed on all lumber shipped abroad since 31st August, 1891 provided the lumber shall have paid royalty under the Land Act, all arrears of royalty being at the same time paid by the claimants. This means that the rebate, disallowed since 31st August, 1891, will once more be granted, the disallowance being so wholly abrogated that the rebate during the period of former disallowance can now be claimed of the Provincial Government.

EDITORIAL NOTES.

SENATOR Snowball, of New Brunswick, returned from Europe a few days before the closing of the Dominion Parliament. He came direct from Paris to Ottawa, and at once waited on the Finance Minister and urged him to ratify the French treaty in the interests of the lumber shippers of the Maritime provinces, of which the Senator is one of the largest.

ENGINEER Keating's recommendation to the city council, of Toronto, that cedar block pavements to the amount of \$40,000 be constructed this year, has been referred back to this official for further consideration. The conclusion is that the sanitary evils that follow this form of pavement are a peril to the health of the people. This is safe ground to take, if the facts will support the contention, but not otherwise. If we look abroad we find that in European countries, where, because of the congestion of population, every care that is promotive of rightful sanitary conditions needs to be practiced, wooden pavements are growing steadily in public favor. This is the case in London, Bristol, Paris and other large cities. But the authorities in these cities do exercise some scientific knowledge of the work they undertake. Mr. Keating, who has shown himself a very capable man, probably knew what he was doing when he made the recommendation in question.

IN the speech from the Throne on the opening of the Ontario Legislature on the 4th inst. reference was made to the marked improvement in the state of the lumber trade, the prosperity of which is of so much importance to the revenue and other public interests of the province. To this activity is attributed the increased prices that were secured for the timber berths in the Nipissing and Georgian Bay districts sold during the past year. The reference on this point is in these words: "I am pleased to state that the prices obtained were high beyond precedent, averaging \$3,657 per mile, and this, although the dues to be paid on the timber when cut were increased by one-fourth as compared with the dues payable on berths formerly sold in the Nipissing and Algoma districts. In addition to the annual rental and timber dues which will be paid into the provincial treasury upon the timber when cut, the sum of \$2,250,000 was realized by way of bonus." Progress has been made in the establishing of a national park. The commissioners have completed the duty assigned. They have collected much useful information touching the objects of the commission, and a bill to establish a national park will be submitted to the Legislature this session.



A PROMINENT lumberman of Quebec is Mr. John S. Murphy, of Levis. In the winter season he spends less or more time in Toronto and certain sections of Ontario. In conversation a few days since he said: "All this year's cut of logs in the woods of Quebec has already been sold. The bulk of the timber will go to the Liverpool market. Prices with us are better in Europe than in the United States. Our trade with South America is also developing, and we are anticipating, in a short time, that this will be large enough to make the United States market a matter of indifference to us."

* * * *

"Despite the McKinley bill," said Mr. Shortreed, of Shortreed Bros., Hillsdale, Ont., "we are shipping large quantities of cedar poles to the United States. For the better quality of poles the Americans have got to come to Canada. Shipments of poorer stock, of course, have been reduced. We handle hardwoods nearly altogether and trade is very good. We ship principally to the States. I certainly favor free trade in lumber."

* * * *

"Lumber business is very satisfactory," remarked Mr. Gray, formerly of Hastings & Co. "This has been an active winter in the woods, and things will hum this summer around the mills. Undoubtedly there will be a good many logs rafted to Michigan, but our own mills will do lots of cutting. Prices are good. We have reason to be pleased with lumber conditions as they are to-day, after the dull period that we had passed through, and I hope things may be allowed to remain in this shape."

* * * *

"We would prefer no export duty on logs," says Mr. T. H. DeCew, manufacturer of hardwood lumber, Essex, Ont., "and are hoping, and believe, the change in the administration in the United States will bring about in the near future closer trade relations between the two countries. I do not think it is policy for our government to do anything that might hinder the bringing about of this result. I noticed a statement in a recent LUMBERMAN that the Essex mills have put in 2,500,000 feet of logs. This refers only to Mr. Naylor's mill. I have a stock for my Essex mill of 3,500,000, besides 2,500,000 at my Colchester mill, making a total of 9,500,000, for Mr. Naylor and myself. This has been one of the finest winters for moving stock we have had in fifteen years."

* * * *

Robert Batty, a Canadian woodsman, and now working in Oregon, writing to a former friend and school-mate, says: "I scaled one log 15 feet long that made 2,600 feet of lumber and another the same length that contained a little over 2,400. I have scaled dozens of the same length with 1,600, 1,800 and 2,000 feet in them. The timber here is very tall and large. It is no trouble to get from 250,000 to 300,000 feet of lumber off one acre. I know of one acre from which was cut 289,000 feet actual measurement. In timber like what I have mentioned the cutters go through it and fell all the trees they can without felling them across each other to damage them—then when the logs are cut and hauled out they go over it again and so on until all the timber is taken out. We had pretty fair weather all last summer and up to the middle of November—then we had three weeks of very wet weather and a little snow. Then we had cool dry weather up to 21st December, when it snowed over 3½ feet in two days. On the 25th and 26th December it rained and took all the snow off. For four weeks we had fine bright weather, then it commenced to snow again and snow fell every day for two weeks, and now it is raining again. The coldest weather we have had this winter was 18 degrees above zero."

Mr. P. O. Byram, of Grand Falls, N.B., is not pleased with "A's" reference in the last LUMBERMAN to the small mill men of the country. "Local milling," says Mr. Byram, "is needed to meet the wants of the farmers and pioneers of the country. It would be a big mistake for the country to encourage a monopoly in lumber at the cost of local milling enterprise. Are we to take away the market for our farmers, and worse still, drive our children to seek employment elsewhere? Mr. Phipps' observations in the same LUMBERMAN are, to my way of thinking, apt to leave a decidedly wrong impression. He says the cutting and hauling of the logs out of the woods is the main work of lumbering, and he would minimize the work of cutting these logs into lumber. The manufacturing of lumber consists not alone in cutting the logs into boards and scantling. If encouragement is given to home manufacturers it means that these boards will be planed, tongued, grooved, and a thousand and one articles made out of the lumber. More than this activity, in the mill means activity in the foundry and the machine shop. Force the small mill men to go out of business and you will curtail the output of every manufacturer of mill machinery of whatever kind in the Dominion. The evil is far reaching."

* * * *

"It is all nonsense," said Mr. N. C. Dymont, of Barrie, Ont., "to talk of a lumber combine. What does it mean? Simply that if such were the case, a lot of Americans would come over here and purchase limits, off which they would cut and ship logs. Now, does it seem reasonable that the lumbermen of Canada, who are here on the ground, and who know just about as much about the value of our limits as any American, would permit any such scheme to mature? The lumbermen of Canada are now the owners of all these limits, and if there is anything in them it is not likely that they are going to let the Yankees pull the wool over their eyes and get the advantage. The fact of the matter is, that no such proposition has been made and so far as I know there is no reason to make it. I quite agree from a Canadian lumberman's standpoint with the Dominion Government in their action in refusing to replace the export duty. If we put on our duty of \$1 again the American government would at once clap on the old duty of \$4 per thousand on cut lumber, and this would practically shut us out of their market for our manufactured lumber. It is true that there are two mills on the north shore of Georgian bay shut down now, but I contend that if the duty was re-imposed they would all shut down. The only feature that I see which we want improved is that our government should endeavor to have the remaining \$1 per thousand tax removed on manufactured lumber going into the United States."

* * * *

Mr. E. O. Elsemore, representative of several large Michigan lumber firms, has been doing some prospecting in the Georgian Bay and other northern lumber sections. During his stay in Toronto he makes his headquarters at the Walker. He considers the rumors of a big combine of Canadian and American lumbermen as mere newspaper talk. Mr. Elsemore had a hand in the purchase of \$500,000 of timber limits from McArthur Bros., of Toronto, in the early fall of last year. These limits are now being worked by their American owners. "We have had this winter," said Mr. Elsemore, "900 men, all Canadians, in our employ. The material and supplies for our seventeen camps was all bought in Canada. This expenditure ought to be of some benefit to Canada. Speaking of the present agitation for a re-imposition of the log duty Mr. Elsemore said: "It would not drive American lumbermen out of Canada. They could let their timber stay there until the tax was removed again. No dues are payable until the trees are cut. It won't pay Canada to discourage American investments here. Last year we imported from your side 1,400,000,000 feet of timber. Of that amount 1,100,000,000 came from Ontario. Now, does it benefit you or not to sell us that timber? As far as I'm concerned I don't believe in these two countries being divided up by a little patch of water. I say if we have anything to sell and you want it, come over, buy it, pay for it and take it away. If you have anything we want let us do the same without any interference from customs officers. I think things are leading that way, too, all the time."

A TALK WITH WORKINGMEN.

By E. L.

ONE of the arguments sometimes used for a reduction in the hours of labor is that workingmen may have more time for self improvement and education. It is by no means certain that this spare time, if secured, would to any large extent, be used in this manner. The men who are to-day improving their opportunities, despite the hours given to manual occupation, would appreciate, and no doubt wisely use, these additional hours. The men who spend their time now in ways that are neither healthful nor improving from a moral or intellectual point of view would in many cases only extend the dissipation of valuable time as a result of extra time on their hands. This, however, opens an interesting field of labor discussion, that we shall not follow further at the present time.

This much will be agreed to by all thoughtful men, whether the end is accomplished in eight hours or ten hours, or under even less favorable circumstances, that the workingman who expects to attain success in his work must read and study at least on the lines of his particular vocation. If one is satisfied to drift with the tide and be a nobody among the multitude of nobodies in his calling, he need not trouble himself about books or opportunities for intellectual culture. The many enquiries, however, that come to a journal of the character of the LUMBERMAN, asking what books one may read with most profit to a working mechanic anxious to become a better mechanic, makes clear that there are scores of workingmen sincerely desirous of self-improvement. Nothing in the work of an editor gives him greater pleasure than the opportunity to answer such enquiries and perhaps give a word of counsel that will prove an inspiration to some worthy seeker after knowledge.

Of course there are those ready with objections to suggestions such as we have here given expression to. But the lion and the adder are ever in the way of the man who does not want to do a thing. Some remarks on this point have recently appeared in the columns of a trade contemporary and we give them a place here as pat to the subject under discussion, and exceedingly practical: "With many of us, reading is largely a matter of opportunity; some think they lack the means of procuring books, or more frequently still, imagine that they have not the time necessary for the mastery of the helpful volumes. If one would stop to consider but for a moment, however, the amount of money we spend for cigars, amusements, etc., we would soon find that we could easily accumulate in a year's time a sufficient amount to be able to invest in a nice little library. I do not mean to deprive oneself entirely of amusements, because it is easy to realize that "all work and no play makes Jack a dull boy." If we would, nevertheless, stop to consider the great benefit derived from a mechanical library, and the possible increase in salary by reason of intelligent use, or, at least, the being able to accomplish a day's work with a greater amount of ease, we would certainly profit by it far more in the end.

"It frequently happens that the taste or appreciation for what is advancing and ennobling in literature of this kind is lacking. This is the heaviest bolt on the gate of knowledge; for no amount of recommendation can give one interest in a book, and in mental as well as in physical food we are profited only by what we assimilate. But it is just for those who feel both longing and limitation that this article is written—simply to act as a finger-post indicating in what direction mental culture may be reached. Bear in mind also that there are "passing" books and "lasting" books. This we have more or less all of us experienced in books written in the form of romance, fiction, novels, etc. The same thing holds good on mechanical literature. One cannot expect to find the same amount of help in the books of the day as in the books for all time. Again, the manner of reading will differ. The one kind furnishes comparatively easy reading, because more on the level of our own knowledge and experience—but the latest book should not occupy the time to the exclusion of the older authors, who often give you their thought more by way of reward than of help, just as nature does not spread her gold upon the surface, but let's us search and dig, or crush the rock to get the precious ore. We must do some reading that requires thought and labor."

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

NOT very much credence is placed in the reported big combine of American and Canadian lumbermen. No doubt many United States lumbermen have been over here this year, and a number of properties, representing large figures, have passed from Canadian to American hands. But this is a very different matter to capitalizing a concern of \$10,000,000, as the rumor goes, and buying up pretty much the whole lumber interests of the Dominion. Leading lumbermen at the Capital, who would be likely to know something of the matter, say there is nothing in it. Mr. W. C. Edwards, M.P., said: "A firm with one hundred millions capital might, perhaps, be able to make conditions of cut and output, but a firm with only ten millions is not in it. It is much easier to corner wheat than to corner lumber." Mr. R. A. Hurdman said: "Gen. Alger, of Michigan, has already purchased limits on the St. Maurice, but the formation of a combine is not under consideration. The General, who is very wealthy, has had the limits for some three years, but nothing has been done on them." Mr. Charleson, late government timber agent for Quebec, said: "There are a lot of men fishing round for options. If they can get a good commission they sell; if not, nothing is done." Mr. Charlton, M.P., said: "There can be nothing in the nature of a combine. There are several firms largely interested in this district that will not come in. Amongst these on the other side, are A. Hill, H. Budman, Temple Emery; Geo. W. Peck, Cleveland, O.; Greenback and Gilchrist, of Alpena; Nelson, of Cheboygan; Nelson Holland, Merrill & Co. and William Peters, of Saginaw. These men would not join a combine, but some already hold limits. There might be a sub-firm who would join in a company, but nothing in the nature of a combine."

PRICES ADVANCING.

The sale by Mr. J. R. Booth this month of between five and six million feet of lumber to a United States "middle" firm at an advance of from 50c. to \$2 per thousand feet, according to grade, over last year's prices, portends stiff prices for Canadian lumber this year. This lot, with the exception of a large contract in the hands of the Shepard & Morse Manufacturing Company, very largely exhausts, it is said, the really first-class lumber of this district. A local lumberman is authority for the statement that every board to be cut for miles around Ottawa has been secured by American and English buyers amid great competition. Lumber everywhere is in demand this year. Even the South American market, which has been practically nil for some years, is brightening up.

LUMBER TOLLS.

A deputation of lumbermen waited on the Minister of Public Works, recently, asking that a change be made in the joint stock companies general act so as to make it compulsory on the part of the companies affected to charge rates of toll at so much per 1,000 feet board measure instead of per piece, as the law now stands. It is complained on the part of the small dealers that the present mode of collecting tolls is unjust, because a small log containing 50 or 75 feet board measure is made to pay as much toll as a log containing 250 or more feet. It is believed the Government will see the justice of what is asked, and will have the changes made in the joint stock companies general act to meet the case. Of course, this no way affects Government works, the Government having the right to levy tolls on any scale it pleases, nor is it claimed will it in any way affect joint stock companies, but it will be equitable among dealers.

INDIFFERENT LENGTHS.

Captain W. O. McKay, lumberman's agent, has orders to secure a large number of men for the drives. Good hands are worth from \$28 to \$35 per month.

An indication that the season's work in the woods is coming to a close is to be found in the large number of shanty men who are commencing to crowd the lower town hotels.

Buell, Hurdman & Co., have made a number of changes in the lower portion of their mill, and expect to have everything in order for sawing the early part of next month.

Harry Pratt, the champion river man of the Upper Ottawa, leaves in a few days with a picked gang for the Ottawa drive. Various other gangs are going forward to different points.

Extensive improvements are being made at the old Perley & Pattee mill, that is now the property of Mr. J. R. Booth. Over two hundred and fifty workmen are engaged on the work. Seven new water wheels are now being placed in position. Three of these are of enormous size, being known as the Canadian wheels, and similar to those placed in Mr. Booth's large mill last spring. It is learned that the machinery for the new mill will begin to arrive about the middle of next month, but the improvements cannot be completed or the whole of

the machinery placed in position before midsummer. When completed the mill will employ almost as many hands as the other mill owned by Mr. Booth.

Lumber shipments are very heavy on the C.A.R. line at the Chaudiere. The company are said to be 900 cars behind in their shipments. Every lumber car the company has is running between Ottawa and American points.

Another lumber deal is recorded this month. The Ottawa Lumber Co. have purchased the entire cut of '93 of R. H. Klock & Co.'s mills at Klock's mills and Moore lake and McCracken, Boyle & Co.'s mills at East Templeton. The entire cut will aggregate about 7,000,000 feet.

OTTAWA, Can., March 27th, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

RECENT reports of Australian trade are more discouraging than it had hoped would have been the case. This seems contradictory, too, in view of the large order I reported last month as having been received by Robt. Ward & Co. for Australian shipment. Outside, however, of this order trade would appear to have become very flat. Word is current here of a cargo that has been lying at Sydney for three months, and advertised for sale, to be delivered at any port in Australia, but there is no demand, and the cargo cannot be disposed of. The financial market in the Antipodes is far from encouraging. There are at present five vessels loading at British Columbia ports for foreign. At Burrard Inlet, Br. ship County of Yarmouth, 2,154 tons, for U. K. f. o.; Chil. ship Hindostan, 1,542 tons, for Valparaiso; Am. bark Seminole, 1,439 tons, for Santa Rosalia; Am. ship Ivy, 1,181 tons for Wilmington, Del.; Br. bark Assel, 795 tons, for Antofagasta. In addition to these there are now due the Norwegian bark Sigurd, 1,530 tons, now at San Francisco, which will load at Burrard Inlet for Port Pine at 40s., April-May loading. She is chartered by Robt. Ward & Co., Ltd. There are also due shortly the American bark Harry Morse, and the Hawaiian bark John End, both of which are coming up from San Francisco. It is anticipated that a satisfactory local trade will be done this season.

COAST CHIPS.

Romander Eckforth & Son are contemplating building a sawmill on Hornby Island.

John Wilson, manager of the Brunette Sawmill Co., has been unanimously elected Vice-President of the Board of Trade of this city.

The Brunette Sawmill Co., Westminster, contemplate increasing their capital stock to \$300,000 and extending their business operations.

The Revelstoke Lumber Company will have their sawmill in operation early next month. The machinery has been supplied by the Wm. Hamilton Manufacturing Co., Peterboro', Ont.

Jas. Scott, who got his leg cut off by a saw in the Hastings mill about a year ago, and brought action against the British Columbia Mills, Timber and Trading Co., the owners of the mill, claiming that the accident happened through the company's neglect, has been awarded \$2,500, the amount claimed.

Bringing sawlogs from the United States to Canada is a good deal like bringing coals to Newcastle, says the Nelson Tribune. Yet that is what is happening right here in West Kootenay—or, rather, is what will happen as soon as the Kootenay is free from ice. G. O. Buchanan, the Kaslo sawmill man, has contracted with Bonner's Ferry parties for 1,000,000 feet of logs, the logs to be cut in Idaho and rafted down Kootenay river, thence up the lake to Kaslo.

Mr. H. DePencier, manager of the MacLaren-Ross Lumber Co., says there is a fair chance of the mills starting up within the next three months, but it will all depend upon the foreign lumber trade. If the mills had railway connection with the Great Northern or Northern Pacific, whereby lumber could be shipped to the Middle States, the trade, Mr. DePencier says, would soon be in better shape. He does not expect to see the lumber industry of the Province developed to any extent until one of the Central American canals is built.

The Royal City Planing Mills, of Vancouver, have already shipped two carloads of dressed lumber, consisting of stairs and flooring to Chicago for use in the construction of the Canadian building at the World's Fair, and they are now preparing their own exhibit, which will be shipped almost immediately. Amongst their exhibit will be two very finely polished spruce and cedar doors, which have been manufactured with the greatest care. One of the most interesting portions of their exhibit will, however, be some sections of the native woods of this Province. One section of spruce measures 5 feet 8 inches, and was cut 48 feet nine inches from the

butt. A section of Douglas fir measures no less than 6 feet 7 inches across, though cut 45 inches from the ground, so that the size at the butt must be enormous. It is, however, expected that a still larger section will be obtained. Two limbs of Douglas fir measuring 16 inches across will also be sent, as well as a log of hemlock 3 feet in diameter. All these were obtained from the mill's camp near Hastings. A car load of fine dressed lumber has also been sent by Geo. Cassidy & Co. It consists largely of mantels and ornamental work for use in the buildings of the Canadian section.

NEW WESTMINSTER, B.C., March 25th, 1893.

NEW BRUNSWICK LETTER.

[Regular correspondence CANADA LUMBERMAN.]

A DIFFICULTY over freight rates has shown itself among the shinglemen. The inter-state committee, at Washington, has given a decision which compels the Canadian Pacific, Maine Central, and Boston and Maine railways either to reduce their rate on shingles from northern Maine or advance it on shingles from New Brunswick. The ruling states that the rate from Fort Fairfield, Me., to Boston, shall not be more than 6½ cents higher than the rate from Fredrickton, N.B. The railways have been giving Fredrickton shipments a cut rate, and the Maine mills protested. Locally the operators who will be most affected are Alex. Gibson, J. R. Morrison and D. F. George, all of whom ship from Fredrickton. These conditions, however, apply only in winter. In summer they ship by schooner to Boston, New York and other ports. St. John men ship almost entirely by water. The Restigouche County shingle men have a favored rate via Intercolonial and Grand Trunk railways, and ship by those lines.

PIECE STUFF.

Joseph Campbell, of Newtown, will get out 1,000,000 feet of logs.

The tonnage of wooden vessels at this port shows a steady and marked decrease.

Instead of making lumbermen's rafting-pins by hand, they will now be made by machinery, a New Brunswick man Haneberry, of Fredrickton, having invented such a machine.

T. S. Whitman, of Annapolis, N.S., has now more pulp wood hauled in than any two former years combined. It is for the United States market. Pickels & Mills, of Annapolis, will get out 6,000,000 feet of lumber this season.

The Commissioner of crown lands in his annual report, which has just been laid before the legislature now in session, expresses the opinion that the outlook in the British and Continental market is no better than last year, but he anticipates a larger cut this year than last.

C. T. White, of Apple River, N.S., has about 5,000,000 feet of white pine lumber on the river, and about ten cargoes of piling. At Eatonville, C. F. & F. R. Eaton have landed at the river to date logs enough to make about 6,000,000 feet of lumber, and expect to get out 1,000,000 feet more before the season closes. Their new mill is nearly completed.

ST. JOHN, N.B., March 24th, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE work of rafting logs on the Saginaw river, which has assumed large proportions the last few years, is meeting with strong opposition just now from the vessel owners who ply their trade on the river. Their contention is that the rafts are an obstruction to navigation, and efforts are being made to secure congressional interference, and have the matter referred to a commission of engineers to investigate and report. Lumbermen are uniting, and will present a strong protest at the meeting of government engineers to be held at Detroit, April 6th. The large quantity of logs that have been brought over from Canada, and which will certainly be substantially increased this season, lends special interest to the matter with many Michigan lumbermen. The vessel owners, however, are equally determined to fight and secure, at least, a reduction in the size of the rafts.

BITS OF LUMBER.

Operations in the woods are practically suspended.

Mitchell & McClure, of Saginaw, expect that their mills will cut a large quantity of Canadian logs.

James Hamilton, who is operating in Georgian Bay waters, for Gilchrist, of Alpena, has 5,000,000 feet of logs banked. They will be towed to Alpena.

The story is being told of some Michigan lumbermen who loaded 30,055 feet of logs upon a pair of bob-sleighs. The sleighs were built entirely at the camp. They were six-foot run sleighs, runners four and one-half inches thick. The beam is 18x20 inches thick and 15ft. long, made of maple, and the load is held in place by 850 feet of half-inch steel chains

THE NEWS.

ONTARIO.

weighing 2,000 pounds. There are fifty logs in the load, the smallest measuring 406 feet and the largest 1,205—all eighteen feet long. They are arranged on the load in ten tiers, each of which, except the top one is stayed separately by the chains. This huge load weighed nearly 140 tons, and a team of chestnut geldings, weighing about 3,500 pounds, hauled it to a considerable distance. About 500 people witnessed the feat.

A quantity of sawlogs belonging to the Saginaw Lumber and Salt Company broke a week ago, but the most of them have been recovered.

A large boom is to be built near the mouth of the river, at Bay City, for the storage of logs rafted across the lake from Canada. The contract has been let for driving 4,000 piles for the boom.

SAGINAW, Mich., March 25th, 1893.

TRADE NOTES.

Mr. F. E. Gaudrie, of Pt. Hope, Ont., has recently had patented a labelling machine, which is said to be perfection itself. It labels all kinds of preserving cans such as those used for tomatoes, corn, peas, salmon, lobsters, etc., at the rate of 100 a minute. It is made to go either by hand or power and a child ten years of age can easily run it. It is patented in the United States and Canada, and patents are being secured for England, France and Germany. Mr. Alonzo W. Spooner, of Pt. Hope, who usually knows a good thing when he sees it, has secured control of this machine for Canada and all orders will be supplied by him from Pt. Hope.

PERSONAL.

Mr. Isaac Cockburn, the well-known Ontario lumberman, has been elected secretary of the Manitoba Lumberman's Association.

Messrs. Sadler & McDonald, of Lindsay, Ont., are on a visit to North Galveston, Texas, where they are interested in lumbering operations.

The LUMBERMAN was pleased to receive a call from Geo. Cormack, Jr., lumberman, of Whitby, Ont. Mr. Cormack is constantly on the road and reports the outlook for trade this year, as bright.

Michael Carr, of New Edinburgh, Ont., a driver in the McLaren mill, died suddenly of apoplexy a week ago. Deceased was highly respected by all who knew him and a prominent member of the Methodist church.

The wife of Mr. Edward Hutchison, foreman for the Buell, Hurdman Lumber Co., Sunnyside, Kippewa, Ont., was recently presented with a handsome gold watch, locket and chain by the shantymen as a token of the high esteem in which she is held by them.

Mr. W. B. McLean, of the Conger Lumber Co., has been elected secretary of the Clan McLean, an association recently organized in this city. One purpose of the organization is to tender a reception to the hereditary chief of the clan, Sir Fitzroy Donald McLean and Lady McLean, should they visit Toronto during the coming summer.

In the death of Mr. A. F. Mackay, of Liverpool, Eng., the lumber trade of Great Britain and Canada loses a most esteemed member. The deceased was one of the octogenarians of the trade, being in his eighty-third year at the time of death. The firm have a branch at St. John, N.B., under the control of Mr. W. Malcolm Mackay.

On March 17th, Mr. Hugh R. McLachlin, of Arnprior, Ont., one of the oldest and best known of Canadian lumbermen, was called to his eternal rest. About seven years ago deceased retired from active work, having secured a competence, and settled down to private life in Arnprior. He leaves a widow and family of seven, all grown up, to mourn his loss.

On 13th ult., Mr. Allan Grant, of Fitzroy, Ont., a prominent lumberman of that city succumbed to a severe illness of three weeks duration. Mr. Grant was well-known on the Ottawa river, having at one time carried on an extensive square timber business. He was the second son of the late Capt. John Grant, who took part in the war 1812; and grandson of Lieut. Allan Grant, who engaged in the war of Independence. The families on both sides were U. E. Loyalists. His mother still survives at the advanced age of 91 years. Deceased leaves a widow and three children to mourn his loss.

Frederick Burrows, one of the pioneers of York, Ont., died at his residence in township of King on 23rd ult. after a lingering illness. The deceased was a native of Sligo, Ireland, who came to America when a young man. After living in New York for some two years he settled in Toronto in the thirties. Later, in partnership with his brother George, who now resides near Stayner, he entered into the lumbering business in King township, where the firm erected the first steam saw mill operated in that district. Mr. Burrows lived to see that forest district become thickly populated and increased in wealth.

—Jas. Howard, lumber dealer, Whitby, has assigned to J. F. Paxton.

—The mill of John McLaren, of Renfrew, is now lighted by electricity.

—Pickard Bros. sawmill at Glamis, Ont., is opened for the season.

—Robert Hadden's mill, Vasey, has been running for a month, with stock for a long season's operations.

—Mr. Lowx and Mr. Stearns, of Duncansville, have each some 10,000 logs to be sawn in their mills this season.

—Wm. Boyes, a mill hand at Staples, was held up by a gang of masked men and robbed of \$90 cash and a gold watch.

—H. Lindop, planing mill, St. Thomas, is in financial difficulties. The loan society has an encumbrance of \$21,000 or so, and the bank claims almost \$11,000.

—The Georgian Bay Lumber Co., of Waubushene, are building a flat-bottom side-wheel boat, to be used among the logs where there is not sufficient depth for the tugs.

—Gillies Bros., of Braeside, whose limits are on the Coulonge, expect to start their drives about the middle of the month. The snow has been excessively heavy in the district.

—The shingle mill of McConachie & Co. near Huntsville, is being put in shape for the season's work, which will be commenced early this month. A good trade was done last season.

—The Rathbun Company, of Deseronto, can lay claim to shipping a quantity of pine lumber to New Glasgow, N.S., to be used in the building of the first steamer constructed in Canada.

—Mason & Co., at Mechanicsville, have taken out five thousand pieces of spruce during the past winter. The snow averaged nearly five feet and road-cutters had to wear snowshoes to pursue their operations.

—The Export Lumber Co., of Ottawa, is stowing away in the neighborhood of 100,000 feet daily in its dry sheds in Rochesterville, a fact that is indicative of a likely demand at good prices in the near future.

—A local paper says that Alex. Cameron, of Windsor, who owns extensive timber limits in Colchester, charges a number of the residents in the township with appropriating his timber. It is thought that \$2,000 worth has been taken.

—This is the season when the local papers tell of the big loads of sawlogs that are drawn by the lumbermen of their locality. A story comes just now of a load of fifty sawlogs drawn a distance of three miles on the Madawaska river.

—Mr. N. S. Lusty, of Rodney, has in stock at his mills, 1,250,000 feet of lumber, composed chiefly of white ash, black ash, white oak, black oak, hickory, hard and soft maple, soft elm and basswood. Capacity of mill, 15,000 feet per day.

—The Gall Lumber Manufacturing Co., of Toronto, is applying for a charter to carry on a lumbering business, with a capital of \$50,000. The company will be composed of Thos. Meaney, John S. Hutton, George Ritchie, George Gall and George W. Nickels, all of Toronto.

—R. D. Thexton, of Lindsay, is cutting large quantities of hemlock and cordwood upon his 1,000 acre limit on Bull Lake. In the course of a couple of weeks a substantial cottage will be erected on a charming site for a summer residence, and Mr. Thexton's family will occupy it during the summer months.

—Thompson & Son, of Peterboro, got drawn out of Harvey township across Deer Bay a large stick of white ash, which measured 36 feet long, 31 x 31 inches at the butt and 27 inches at the top and was drawn to Lakefield by three large teams of horses. Mr. Thompson says it is the finest stick of square timber he has seen in a good while.

—Daniel McCormick, foreman for McLeod, Irwin & McCormick, on the Wahnapiite river, had a load of logs drawn last week with one team, which contained 35 logs with an average of 12 inches in diameter. The logs were loaded by Dunkin McCormick, J. Canning and Thomas King, the teamster being David McKenzie.

—A frightful murder near Webbwood, Algoma, was reported a fortnight ago. It seems a man brought in two bottles of whisky to Stone & Berrill's camp near Webbwood, intending one for himself and one for a friend. The friend seized the two bottles, and treated the boys, which annoyed the first man so much that he drew his knife and stabbed him, breaking off about two inches of the blade in his head. The poor fellow was taken to the doctor at Webbwood, but died when about five miles on his way back.

—A big drive will start down from Windfall lake to the Coulogne river in charge of Foreman Bertrand, with about fifty men, for W. C. Edwards & Co., Ottawa.

—P. P. Young, of Young's Point, has bought large quantities of cedar and pine in Harvey, Burleigh, Douro and Smith townships, to be cut in the local mills the coming summer.

—Mr. M. Flood, foreman of the Hawkesbury Lumber Co., states the firm took out over 40,000 logs of pine on the Fide Grande during the past winter. Mr. Flood has been engaged as foreman for the firm of Gilmour & Hughson at Hill Point, Que.

—The excellent sleighing of the present winter has enabled the mills along the St. Clair branch, M.C.R., to get out more logs than in any previous winter for the past ten years, and the quantity equals that of four or five average years. Holmes, Moore & Courtright have at their mills in Inwood, 3,500,000 feet, and at Homesdale, 2,500,000 feet. Paul Weidman & Co. have at Weidman, 5,000,000 feet and at Glen Rac 3,025,000. This stock will furnish two years' solid sawing and means constant employment to a good staff of mill hands during that time.

—Chas. Wilson Rowe, who attempted to carry on a fake lumber business in Canada some time ago, has been convicted in Philadelphia of using the United States mails for the purpose of defrauding and of conspiracy. Rowe's scheme was very comprehensive and he succeeded in swindling lumbermen throughout the northwest of thousands of dollars before he was arrested. He represented himself as an extensive lumber dealer, and by referring the lumbermen to a fictitious banking firm of Philadelphia as to his financial standing, he obtained large shipments of lumber which he sold and never paid for.

—The Dickson Company, Peterboro, have purchased the mills, water power, and other Lakefield property belonging to the Lakefield Lumber Company for \$55,000. To the Dickson Company these mills are a very valuable adjunct. They will now have room to hold all the logs they require in the waters above Lakefield, and hence they will be able to commence the season's cutting very much earlier at Lakefield than at either Peterboro or Harwood. The Lakefield mills will be run to their full capacity. The Peterboro mills and the Harwood mills will be operated as usual, and the output of lumber this season will be a very large one. The limits were also offered for sale but were withdrawn at the following figures: Harvey limits, \$1,500; Anstruther, \$5,000; Burleigh, \$2,500.

QUEBEC.

—The Merchants Bank has disposed of 175,000 feet of spruce to the Oswego Manufacturing Company. The lumber formerly belonged to the Thompson Lumber Company, of Calumet, Que.

—Wm. Grimes, of Aylmer, is getting out some fine maple from his land on the Eardley mountains. He sold to J. R. Booth, Ottawa, one stick nineteen feet long, and at the small end it was 24 inches in diameter. Mr. Grimes is selling all this fine timber to J. R. Booth, Ottawa, and R. & W. Conroy, Aylmer.

MANITOBA AND THE NORTHWEST.

—The partnership existing between W. J. Mathers and J. B. Mathers, of Neepawa, Man., has been dissolved by mutual consent. Mr. Wm. J. Mathers continues the business and with his well-known push, will no doubt make it as successful in the future as in the past. Mr. J. B. Mathers, has purchased the stock-in-trade of Mr. A. R. Stevens, retail lumber, in Glenborough. Mr. Stevens retires on account of ill-health.

NEW BRUNSWICK AND NOVA SCOTIA.

“Probably not for years,” says a local correspondent, “has there been such activity in lumbering in the Tatanagouche district, N.S.”

—The Harris Car Works, of St. John, N.B., have been amalgamated with the business of Rhodes, Curry & Co., contractors and builders, Amherst, N.S., and the plant will be removed to Amherst.

—A. Dickie has about 9,000,000 feet of logs landed in the Stewiacke river, N.S., which will be brought to his mill throughout the spring and summer. A. Bigelow, whose mill is situated about four miles from Lower Stewiacke, are planning a large summer's work.

—Norman McLellan, of Shulee, N.S., is under arrest, on the charges of inflicting bodily injuries on John Robertson, also of Shulee. McLellan and Robertson were working in the lumber woods for Prescott and Gillespie, when they got into a dispute over their work. Whereupon, it is stated, McLellan struck Robertson over the back with a handspike, breaking his shoulder blade and inflicting a deep wound on the back of his head.

TRADE REVIEW.

Office of CANADA LUMBERMAN, 1 March 31, 1893.

THE GENERAL SURVEY.

ANTICIPATIONS of a month ago that the demand for lumber would be manifest early in the season are being well borne out by present conditions.

The cut of logs in the woods the past winter was heavy, and the mills will have abundance of work this summer. As a matter of fact the cut of not a few mills was contracted for before the timber had been felled.

Lumbermen in New Brunswick are anxious to see the treaty with France ratified as this will give an important outlet for their lumber. British Columbia looks for a good season's local trade and some improvement in export.

So far as Toronto is concerned building permits already granted are of fair size, and whilst no large trade is expected, the season will be an improvement likely on last year. Country trade is improving.

UNITED STATES.

Standing on the threshold of the spring and summer trade it must be said that not for several moons has the outlook been more cheery for lumber. Reports from the leading lumber centres in all parts of the country tell of a growing demand for stocks, and prices for many lines, and emphatically so, for white pine, hard and constantly stiffening.

FOREIGN.

Keeping line with conditions on this side of the Atlantic some improvement, though less marked, is discernable in the lumber market abroad. A brighter outlook is reported from South America and Canadian lumbermen, both those of the Ottawa district and in British Columbia, look forward to increased shipments this year.

HARDWOODS.

The hardwood market shares in the general improvement that marks the lumber market generally this spring. A correspondent in western Ontario, who operates largely in hardwoods says that trade was, perhaps, never better.

TORONTO, ONT.

TORONTO, March 31, 1893.

Table of lumber prices in Toronto, Ontario, listing various types of lumber and their prices per 1000 feet.

Table of CAR OR CARGO LOTS - CONTINUED, listing prices for various types of lumber such as 1 inch dressing and better, 1 inch siding mill run, etc.

Table of YARD QUOTATIONS, listing prices for mill cull boards and scantling, shipping cull boards, etc.

Table of HARDWOODS - PER M. FEET CAR LOTS, listing prices for ash, white, black, birch, etc.

OTTAWA, ONT.

OTTAWA, March 31, 1893.

Table of lumber prices in Ottawa, Ontario, listing pine, good sidings, pine, good strips, etc.

QUEBEC, QUE.

QUEBEC, March 31, 1893.

Table of lumber prices in Quebec, Quebec, listing white pine in the raft, red pine in the raft, oak, elm, ash, birch, etc.

BOSTON, MASS.

BOSTON, MASS., March 31.—Considerable lumber is moving and prospects are good for the early spring and summer trade.

Table of lumber prices in Boston, Massachusetts, listing eastern pine cargo or car load, western pine by car load, etc.

Table of SPRUCE - Y CARGO, listing prices for Scantling and plank, random cargoes, yard orders, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., March 31.—With the opening of navigation signs of a good season's trade are not wanting.

Table of lumber prices in Oswego, New York, listing white pine, three uppers, pickings, etc.

Table of lumber prices in Oswego, New York, listing mill run, mill culls out, dressing and better, etc.

Table of lumber prices in Oswego, New York, listing 6, 7 or 8, mill run, mill culls out, etc.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., March 31.—Business is not at present terribly brisk, but dealers have every confidence that a large trade will be done this season.

Table of lumber prices in Buffalo and Tonawanda, New York, listing white pine, uppers, shelving, etc.

ALBANY, N.Y.

ALBANY, N.Y., March 31.—Navigation is opened and shipments of lumber are commencing to move out. Prices for white pine show remarkable firmness.

Table of lumber prices in Albany, New York, listing white pine, 2 1/2 in. and up, good, etc.

Pine	SHINGLES.	\$2 40	Spruce	\$2 40	\$2 50
Sawed Pine, ex. XXXX	Bound butts, 6 x 18	\$4 35	\$4 50	\$5 90	\$6 00
Clear butts	Hemlock	3 10	3 25	2 15	2 30
Smooth, 6 x 18	Spruce	5 40	5 60	2 20	2 30

SAGINAW, MICH.

SAGINAW, MICH., March 31.—Stocks of pine are light enough to make sellers quite indifferent to pushing sales. Large quantities of pine are contracted for ahead of the cutting. Prices are downright hard. There is no large amount of stock going out because there is little offering.

Uppers, 1, 1 1/4 and 1 1/2	Fine common, 1 in.	45 00	35 00
2 in.	1 1/4 and 1 1/2 in.	46 00	36 00
Selects, 1 in.	2 in.	40 00	36 00
1 1/4 and 1 1/2	C, 7, 8 and 9 in.	41 00	30 00
2 in.		41 00	

NEW YORK CITY.

NEW YORK, March 31.—Lumber conditions point to a good season's trade. White pine continues as scarce as ever. Buyers report stocks low at Albany, Buffalo and Tonawanda, and prices very firm and advancing.

Uppers, 1 in.	Coffin boards	\$44 00@45 00	20 00	22 00
1 1/4, 1 1/2 and 2 in.	Box, in.	46 00	47 00	
3 and 4 in.	Thicker	55 00	58 00	
Selects, 1 in.	Ceiling, base, fig. No. 1	40 00	41 00	42 00
1 in., all wide.	No. 2	41 00	43 00	37 00
1 1/4, 1 1/2 and 2 in.	No. 3	43 00	44 00	24 00
3 and 4 in.	Shelving, No. 1	36 00	37 00	30 00
Fine common, 1 in.	No. 2	35 00	37 00	25 00
1 1/4, 1 1/2 and 2 in.	Molding, No. 1	36 00	37 00	34 00
3 and 4 in.	No. 2	45 00	48 00	34 00
Cutting up, 1 in. No. 1	Bevel sid'g, clear	28 00	30 00	50 23 50
No. 2	No. 1	21 00	23 00	22 00
Thick, No. 1	No. 2	29 00	32 00	20 00
No. 2	No. 3	24 00	26 00	16 00
Common, No. 1, 10	Norway, c'l, and No. 1	22 00	23 00	25 00
and 12 in.	No. 2	20 00	21 00	22 00
No. 2	Common	20 00	21 00	18 00
No. 3		17 00	18 00	

FROM THE FAR WEST.

The LUMBERMAN had the pleasure of a call a fortnight ago from Mr. W. J. Sutton, of Ucluelet, B.C. This is the farthest post-office in western Canada, and the mails are received every two weeks by boat. Mr. Sutton is engaged in lumbering, and though isolated from the masses of humanity enjoys life thoroughly. The section of country is one to be admired for its natural scenery and is possessed of splendid water power for manufacturers.

MUST NOT BE COUNTED OUT.

A fair number of replies have been received in response to the request in advertising pages of the LUMBERMAN re "Canadian Lumberman's Directory." We do not wish to leave a single lumberman out of its directory pages, and yet we can afford to do so better than any lumberman can afford to be found missing in a book of reference of this kind. Examine advertisement again, and at once sit down and fill in the blanks complete and forward to this office. It costs you nothing to do this much. The book will be the first one of the class published in Canada, and will be invaluable to every lumberman.

COMING SALES.

One of the most important sales of timber berths that will have taken place in Ontario for a considerable time is that of the Mukoka Mill and Lumber Co., advertised for 25th inst. at Toronto. See this month's LUMBERMAN.

Readers will find it advisable to peruse carefully the advertisement in this month's LUMBERMAN of the sale of valuable timber and mill property at Parry Sound offered by Wm. Beatty. This is believed to be one of the cheapest timber properties placed on the market for many years.

The timber limits of Alex. Fraser, of Westmeath, situate on the Georgian Bay waters, are to be sold by auction on Thursday, 27th inst., by Dickson and Townsend, trade auctioneers. The property consists of three parcels; particulars in our advertising pages. The sale will be conducted by Mr. Dickson, who has become known to lumbermen through the clever manner in which he handled the hammer in the Mossom Boyd sale a few months ago.

NOTES AND QUERIES

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column. Correspondents need not give their own name for publication, but it must be made known to the editor. Anonymous communications will find space in the waste basket.

No. 29. SETTING A SLIDE VALVE.—D. H. Welch, in Master Steam Fitter, says: Suppose you are called upon to adjust a slide valve on an upright engine 1/32-inch lead on top and 1/16-inch lead on bottom; after ascertaining by the usual means that the eccentric rod connection is the right length, adjust the valve so as to equalize the lead on both ends, then increase the lead 1/64-inch on the bottom, revolve the eccentric around on the shaft until you decrease the lead on the bottom to 1/16-inch; you will then find you have 1/32-inch on top. For instance, you have 1/8-inch on both ends; you increase the bottom 1/64-inch by lengthening the rod; you then have 9/64-inch lead on the bottom and have decreased the top to 7/64-inch. If you now revolve the eccentric on the shaft, away from the crank enough to decrease the lead on the bottom to 6/64-inch, you will find 2/64-inch or 1/32-inch on top and 1/16-inch on the bottom. If this rule is strictly adhered to it will simplify the setting of valves requiring more lead in the bottom than on the top.

No. 30. CONCERNING WEAK BOILERS.—A correspondent, X. Y. Z., takes no stock in the theory that old and weak boilers give way easily. This is risky doctrine—as risky as the weak boiler. If he wanted a bomb-shell that would explode with great violence he would not take the shell of an egg nor a scooped-out pumpkin-shell to serve as a covering for his dynamite; he would take the strongest material he could get, so that when the break should come it would come all at once. A few grains of powder in his gun-barrel behind a leaden ball makes a great explosion and may cause sad destruction: but he may hold the same amount of powder on the palm of his open hand and touch it off with a coal, producing only a s-w-i-s-h—and no damage at all. A weak boiler is like the famous buzz saw and the advice is applicable: "Don't fool with a buzz saw." Don't fool with a weak boiler.

No. 31. A FOAMING BOILER.—We would like very much to know the cause of a "foaming boiler," as we are nearly handicapped with ours. We have tried everything we can think of, such as "blowing off" the boiler, changing river water for well water, putting fat pork and potatoes in the boiler, but the last state seems worse than the first. Perhaps some of your subscribers can help us out of the difficulty. We should be everlastingly grateful to those who can name a cure for it.—T. & J. Gibson, Wroxeter, Ont.

No. 32. ECONOMY IN FUEL.—Could you or some of your subscribers who use steam for motive power give the writer some information about improvements in building in boilers with a view to economy of fuel. I understand there are several patents held for improved boiler settings, but do not know where to obtain information regarding them; also where any of them are in use successfully. This is a question which I presume a good many millers are interested in, and the information may be of general use to all.—G., Richmond, Ont.

No. 33. LOCAL LUMBERMAN.—Can any of your readers give me a concise plan for tallying logs brought into a country sawmill by its customers? Our customers are the neighboring farmers, who may bring in during the season all kinds of timber, maple, elm, bass, hemlock, pine, etc., and as the number is large at times, a plan that would save much turning of the leaves of a book outside in stormy weather would obviate the difficulty.

NEW BRUNSWICK CROWN LANDS.

ACCORDING to the commissioner of Crown Lands for New Brunswick, whose annual report has recently been placed before the Legislature now in session, the total receipts from crown lands for 1892 were \$128,319.60, of which \$96,072.74 was stumpage fees and \$18,843.83 mileage on timber licenses. The total revenue of the province is less than \$700,000, which makes the revenue from timber sources about one-fifth of the whole. \$8,261.96 was expended during the year for scaling, collection and the protection of crown timber lands.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

STEAM PUMPS



Duplex AND SINGLE Steam AND POWER Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US



NORTHEY

M'FG CO.

LIMITED

TORONTO - ONT.

FIRES AND CASUALTIES.

FIRES.

—Our old friend P. O. Byram, of Grand Falls, N.B., has had his grist and sawmills completely destroyed by fire. In a letter to the LUMBERMAN he says: "I lost all in this world except the clothes I had on, boots and overalls, no coat or hat, but enough of life and courage to try again." That is genuine grit.

—Adam Clark's sawmill at Alvinston, Ont., was burned to the ground a few weeks ago.

—The sawmill of Jas. Covert, of Belmont, Ont., was destroyed by fire a fortnight ago.

CASUALTIES.

—Gottlieb Klays, while working in the woods near Neustadt, Ont., was struck by a falling tree and killed.

—Theodore Beaudoin, of Hull, Que., met with a serious accident in Booth's mill by a piece of shafting falling on his shoulder and breaking his shoulder blade.

—A farmer named Daniel McRae, living near Cornwall, Ont., met his death in a fearful manner. He was driving home with a load of lumber, and his team ran away, throwing him off, but he held on to the reins and the lumber fell upon him. He was literally torn to pieces under the sleigh and lumber.

—John Hayter, an employee of the stave mill at Alvinston, Ont., whilst endeavoring to arrange a belt or pulley was thrown with much force through the building and alighted in close proximity to one of the heading saws. Beyond a few bruises and a sprained ankle he was not hurt.

—John McGillivray, a former Canadian lumberman, and a native of Dalesville, Que., was accidentally killed at a railroad crossing in Staples, Minnesota, a fortnight ago. Deceased removed from Canada to Minnesota in 1879.

—Malcolm McLean, of Glamis, Ont., while felling timber a few days ago, was struck with a tree that came backward striking him on the leg and pinning him fast till such time as he was released by the other men. Fortunately he was not seriously hurt.

—Albert Townsend was killed a week since whilst loading logs in Hardy township, Parry Sound district, Ont.

—Harlin Burns, a Nova Scotia lumberman employed in the yard above Eustis, near Farmington, Me., was killed by the logs rolling on him. His age is 55.

—A man named Solomon Haine, of New Canada, N.S., dropped dead in the woods a week ago. He had been engaged in hauling logs.

—Arthur Oston, of Newton Robinson, Ont., while drawing logs from the bush last week had the misfortune to have his feet badly crushed.

—A fatal accident took place at the lumber shanties of Messrs. Beland & Martineau, Tewkesbury, Que., a heavy log fell on a man named Jos. Noel, killing him almost instantly.

—Geo. Freclarn, an English youth, from Dr. Barnardo's home, was killed by being drawn on a log at McAlpin's saw mill.

—Fred. Lawson, of Toronto, who had been working in the lumber camps at Magnetawan died suddenly in the stage while on the way home.

—Information has been received by Alex. Belliveau, of Ottawa, Ont., that his son had met with a terrible death in a Michigan lumber camp by being eaten with wolves. As far as can be learned he, in company with a friend, while out hunting were attacked by a band of wolves, and although they discharged their rifles into the pack, the wolves overpowered them. Belliveau's companion climbed a tree to escape them and from there he saw his companion torn to pieces by the wolves at the foot of the tree on which he was perched. He fired several shots among the pack, killing five wolves, and then his store of ammunition gave out. For several hours the wolves kept around the tree and did not leave until a number of men from the camp came and drove them away.

LUMBER OF THE SOUTH.

COMPETING WITH THE PRODUCTS OF NORTHERN WOODS.

A TONAWANDA, N. Y. lumberman draws a doleful picture of the lumber future of that town. "Our sales," said he to a Buffalo interviewer, "were less in 1892 than in any year during the past twelve that I have been connected with the business. In my opinion Tonawanda has seen its best days as a lumber distributing point."

The lumberman went on to tell how people bought car lots, where formerly ship load lots were sold, and said the practice of shipping direct from Western mills and from the South was cutting into the home trade. He also mentioned that the World's Fair Commissioners had made a heavy drain on the Western supply to the extent of 800,000,000 feet, which had had the effect of reducing stocks and keeping up prices.

The South, in his opinion, is going to cut a large figure in the lumber business. He says: "The supplies of poplar, cypress, cottonwood, long leaf and short leaf yellow pine from the Southern States is yearly on the increase. The variety and cheapness of Southern lumber is making an impression on the market, and although there is something of a prejudice against it here, it is, nevertheless, making headway. The public schools and other public buildings in Buffalo are now being floored with Southern pine—rift sawed it is called in the specifications. North Carolina short leaf pine is also being used extensively for inside finish, while the long leaf maintains a pre-eminence, it being one of the strongest woods that is grown, containing more resin than any other. Poplar, the best varieties of which come from Kentucky, Tennessee, Mississippi, Alabama, and some from West Virginia, has also cut into the hardwood trade the past few years. This wood is found to take the stain better almost than any other. It is used for rosewood and mahogany quite extensively, and when properly stained only an expert can detect the difference. Rosewood coffins are largely made in this way. It is also made to simulate walnut, oak, quartered oak, cherry, and mahogany, and being cheaper than white pine finds a ready sale."

Asked the question: "Have these Southern woods the lasting qualities of the northern varieties," the reply was: "Cypress will last longer than any other known variety. The statue of Jupiter, one of the wonders of Italy for the past six hundred years, is made of cypress, and in one of the cathedrals of Rome, is a door of the same material said to be 1,100 years old. Cypress shingles are always reckoned good for 200 years."

"How about the cost?"
"Well, I don't pretend to give the exact figures, but white pine has been selling at \$45 to \$50 a thousand feet. Against this you have the Southern yellow pine, the best of which you can buy at \$20 a thousand feet. The best varieties of poplar can be had at \$35 a thousand, inferior kinds calling for less. Cypress sells at from \$35 to \$36 a thousand, the best quality coming from the Gulf States, the Mississippi and its tributaries. It is also grown in North Carolina, South Carolina and Virginia, but the superior grades are located further south.

"In North Carolina short-leaf pine is sold at from \$8 to \$27 a thousand; largely used for inside finish and for boxes. But the best of all woods for boxes, aside from the cypress, is the cottonwood, which sells at from \$16 to \$23 a thousand. The cottonwood tree grows in the short space of four or five years suitable for lumber, and is, in my opinion, the coming wood. Gum wood, the best of which is found below the 35th parallel, when properly kiln-dried, makes the most chaste of hardwood trimmings, and for artistic work is coming into demand. The product of the South also includes oak, beech, sycamore, ash, and cherry in considerable variety."

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N. Y.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

WANTED—A SITUATION AS FILER IN A sawmill. Have had nine years' experience with gang and round saws. Address "H," 3 Maitland St., Halifax, N.S.

WANTED—BY YOUNG MAN—SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care CANADA LUMBERMAN, Toronto.

FOR SALE.

ABOUT A MILLION FEET OF LOGS (AT mill) suitable for bill stuff, etc. Mill can be leased to cut them. Address "Lumberman," care CANADA LUMBERMAN, Toronto.

LUMBERMEN

EXPERIENCED SHIPPER OPEN FOR ENGAGEMENT middle of May. Good bookkeeper and correspondent. Competent to take charge of mill. References furnished. Address "Inspector," care CANADA LUMBERMAN, Toronto.

RAILS FOR TRAMWAYS

NEW AND SECOND-HAND STEEL AND iron rails for tramways and logging lines, from 12 lbs. per yard and upwards; estimates given for complete outfit.

JOHN J. GARTSHORE,
49 Front St. West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe hick and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with

I. C. L., care CANADA LUMBERMAN,
Toronto.

TO LET

LARGE PLANING MILL, WITH SHOP, MACHINERY, kilns, etc., in full running order, corner Niagara and Tecumseth streets, formerly occupied by Gall, Anderson & Co.

Mill 60 x 160; two-storey shop 70 x 75; kilns 20 x 105. Power supplied. Railway sidings into premises.

Apply—N. V. KUHLMAN,
107 Niagara St., Toronto.

FOR SALE

A WELL-ESTABLISHED, THRIVING LUMBER business, being one of but two yards in a rapidly growing manufacturing city of 20,000 inhabitants, surrounded by a well-to-do farming class. Sales the past year over \$70,000, which can be doubled. Capital required about \$15,000. Terms easy. Reason for selling, illness of Manager. Address

"Good Opportunity,"
Care CANADA LUMBERMAN,
Toronto.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, 1 and 11, all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long.

Address all particulars as to dryness, quality, quantity on hand and price, to P.O. Box 2144, New York, N.Y.

SAW MILL AND TIMBER LIMITS
For Sale.

THE UNDERSIGNED OFFERS FOR SALE his Mill Property, situated in the town of Peterboro, known as the Point St. Charles saw mill, together with piling grounds, pond, booms, chains, anchors, ropes, horses, harness, wagons, sleighs, shanty and driving outfits. Also, the Galway limits and about 15,000 pieces of logs on Nogeys Creek and Swamp Lake, composed of pine, cedar and hemlock. For all information apply to

A. DONALD,
Point St. Charles,
Peterboro, Ont.

VALUABLE

Timber Lands
—AND—
Saw Mills
FOR SALE
AT PARRY SOUND

THE MILL IS SITUATED ON THE WATERS of Parry Sound, and has good shipping facilities. The largest vessels or steamers on the lakes can load at the lumber docks. The mill will cut about twenty thousand feet of lumber and twenty-five thousand shingles in ten hours.

There are about seven thousand five hundred acres of timber pine, hemlock, birch, ash, oak, spruce, basswood, etc.

The timber is free of dues.

Parry Sound is the terminus of the Ottawa, Arnprior and Parry Sound Railway, now in process of construction.

Price: Twenty-five thousand dollars.

Terms as may be agreed upon.

WM. BEATTY,
Parry Sound.

DICKSON &
TELEPHONE TOWNSEND
2972SALE OF
TIMBER LIMITS

THE FOLLOWING TIMBER LIMITS ON Georgian Bay waters will be sold by public auction at Toronto, at No. 22 King Street West (Manning Arcade), at 2.30 p.m.

Thursday, April 27th, 1893

PARCEL NO. 1.—Berth No. 5 in the Township of Patterson, on Lake Nipissing, near head of French River, 25 1/2 square miles, more or less.

PARCEL NO. 2.—Berth No. 22 (sale of 22nd Oct., 1885), Township of Dowling, on Vermillion River, known also as No. 87 on map of 10th July, 1872, 36 square miles, more or less.

PARCEL NO. 3.—Berth No. 16 (sale of 22nd Oct., 1885) on French River, known also as No. 11 on map of 10th July, 1872, 36 square miles, more or less.

Terms and conditions made known on day of sale.

DICKSON & TOWNSEND,
Auctioneers.

For other information apply to
ALEXANDER FRASER,
Westmeath, Ont.

Sale of
CANADA PINE
TIMBER LIMITS

ON THE NORTH AND EAST SHORES OF LAKE HURON.

THE undermentioned Timber Berths and Mill Property will be offered for sale separately, at Public Auction, in the City of Toronto, Canada, on

Tuesday, 25th day of April, 1893

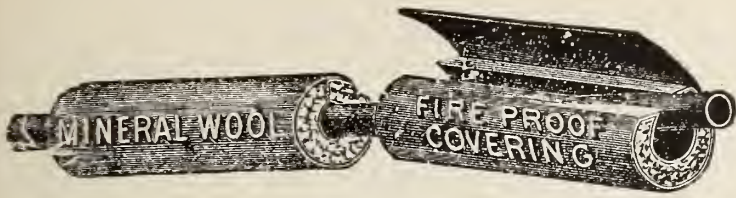
viz.: Berths Nos. 10 (sale of 1885) 69, 82, 136, 137 and 174 (the Township of Montgomery), containing in all 247 square miles of Pine Timber Limits in the District of Algoma, which have not been cut upon; and parts of the Townships of Gibson, Wood and Medora, containing 77 square miles of Timber Limits in the District of Muskoka, which have been cut over in parts; and the Saw Mill property situate on the Georgian Bay, at the mouth of the Muskoka River.

And also (by arrangement with the Collins Inlet Lumber Company) the two following Timber Berths, viz.: Township of Geschen, and Berth No. 59 in the Districts of Algoma and Nipissing, containing in all 72 square miles.

All the above Timber Berths water to the Georgian Bay.

Maps and full particulars of each of the above properties may be had on application to

THE MUSKOKA MILL & LUMBER COMPANY,
Toronto, Canada.
24th February, 1893.



MINERAL WOOL

STEAM PIPE AND BOILER COVERING

Saves enough fuel to pay for itself in one season.

Is Fire-proof, Frost-proof, Vermin-proof and Indestructible

CANADIAN MINERAL WOOL CO., LTD., # 122 BAY ST., TORONTO

THE RATHBUN COMPANY

DESERONTO, ONT.

MANUFACTURERS OF

TERRA COTTA FIRE-PROOFING

For use in Old and New Buildings

Endorsed by leading Architects
Absolutely Fire-proof Deadens Noise
Does not Crack on application of Heat or Water
About as Cheap as Wood or Brick
Weight one-third that of Brick

Gives Warmth in Winter; Coolness in Summer

Cable Address
Hamburg: "Gardner."

Cable Address
London: "Freestuff."

CARL GARTNER

AGENT FOR

CANADIAN WOOD GOODS

HAMBURG, GERMANY:
Office
Kl. Reichstr., 17-19



LONDON, ENGLAND:
8 Union Court, Old Broad St., E.C.
and 80 Bishopsgate St., E.C.

Representative Lumber Manufacturers and Dealers

Town	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail.	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	2 Mills, Water, 1 Band, 2 Gangs
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Latb Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail.	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Latb Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Latb and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cbeese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Steam, Circular, 16m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail.	Stm., Band, Cir., S. 75m, Sh. 60m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail.	
Waubushene, Ont.	Waubushene	Georgian Bay Consolid. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Pine only.	Waubushene mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carwell, Thistle & McKay	Lumber, Wholesale and Retail.	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles.	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glammis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods.	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail.	
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail.	
London, Ont.	London	Gordon, James	Exp. and dir. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 40m
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail.	
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles.	Steam, Circular, 20m.
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Com. Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Com.
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m Circular, Gang and Band, 180m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	
Toronto	Toronto	DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail.	
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill.	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

.... MANUFACTURERS OF

Charcoal Iron Gilled

RAILROAD WHEELS

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NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

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CORRESPONDENCE SOLICITED

OAK TANNED BELTING

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THE J.C.McLAREN BELTING CO MONTREAL

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-HAND Boilers, Engines and General Machinery for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

- ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.
ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.
THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.
ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.
TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.
ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S make.
TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.
ONE 6 1/2 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.
TWO 5 1/2 x 9 SLIDE-VALVE ENGINES, BECKETT'S make.
ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.
ONE 15 H.P. ENGINE, English make.

- ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.
ONE 12 H.P. HORIZONTAL PORTABLE Engine and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:—

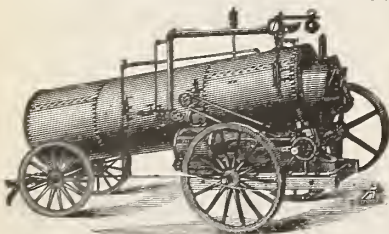
- ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.
TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.
ONE GOLDIE & McCULLOCH THREE-SIDE moulder.
ONE ONE-SIDE MOULDER.
TWO 34-INCH WHEELS BAND SAWING machines.
ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.
ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.
ONE GOOD SHAPER.
SIX GOOD SAW TABLES.
ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.
ONE WOOD FRAME TENONER IN GOOD shape.
TWO UPRIGHT SWING SHINGLE OR or heading machines, with jointers.
ONE ALMOST NEW GENUINE "BAILEY" gauge or handle lathe, with countershaft.
ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.
FOUR DOWELL MACHINES.
ONE 20-INCH WATEROUS CHOPPER complete with double elevators, equal to new.
FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

SECOND-HAND MACHINERY FOR SALE

One 16 x 32 square bed slide-valve engine, shaft 6 1/2 x 10 ft., fly wheel 108 in. diameter, 8 x 6 rim, iron pulley 108 x 24.
One pair of engines, right and left, 16 x 20, can be used separately or together, with two large pulleys and fly wheel and connecting shaft.
Three boilers 48 x 14 with large domes, full fronts and all fittings, fixtures and stack.
One 56 x 14 boiler, comparatively new, has been in use less than a year, and several portable engines from 12 to 20 horse power.

WATEROUS, BRANTFORD, CANADA

The MONARCH BOILER (Patented) and HERCULES ENGINE



Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.
The 70 horse power can be taken over the roughest roads, or into the forest, and set up as easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

Write for circulars.

ROBB ENGINEERING CO., LTD. Successors to

A. ROBB & SONS, Amherst Foundry and Amherst, N.S. Machine Works.

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ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

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OVER ONE MILLION SOLD Most complete Book of its kind ever published

Gives measurement of a kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round timber; hints to lumber dealers; wood measure; speed of circular saws; care of saws; cordwood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stave and heading bolts, etc. Standard book throughout the United States and Canada. Get the new illustrated edition of 1882. Ask your bookseller for it. Sent post paid for 35 cents.

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Box 238, Rochester, N.Y.

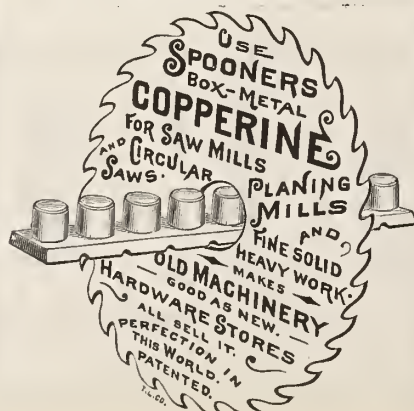
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MANUFACTURER OF

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CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all MILLER subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF

THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA :

1893

Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible :

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank :

Power, style and capacity of mill:

Class of manufacture:

Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank :

Wholesale or Retail: Class of stock handled:

Post Office: Shipping Point:

Owners of planing mills, sash, door and blind factories, will please fill in following blank :

Power and style:

Class of manufacture:

Post Office: Shipping Point:

(Signed)

..... P.O.

Province.....

Address all communications to

DIRECTORY DEPARTMENT, CANADA LUMBERMAN, TORONTO, ONT.

Do You Lack Steam? We Can Help You THE CANADIAN HOLLOW BLAST GRATE

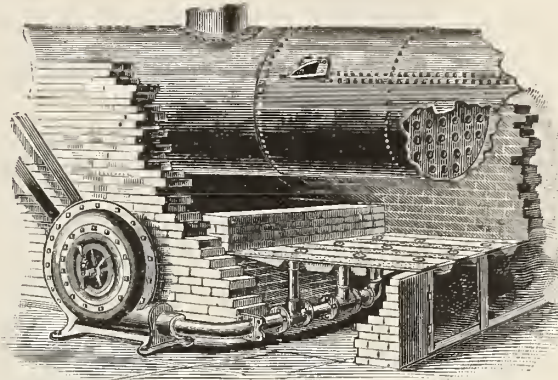
A new and novel application of a principle centuries old. Step into the nearest blacksmith shop and see it in operation on a small scale.

The Hollow Blast Grate supplies the furnace fire with a blast of hot air sufficient at all times to insure the rapid and perfect combustion of fuel of every sort.

It is the only appliance that steams successfully with green or wet sawdust, tanbark or other refuse and waste.

It alone has solved the problem of steaming with the fine, compact dust of the band mill.

Regardless of the character of your fuel, we can greatly increase the volume of steam generated in your boilers.



Furnace Fitted with Hollow Blast Grates and Apparatus.

HUNDREDS OF TESTIMONIALS LIKE THE FOLLOWING:

"Your Hollow Blast Grates have given entire satisfaction. They give us all the steam we want and effect a great saving in valuable fuel. We cannot recommend them too highly. —MICHIGAN STAVE & BARREL CO., LANSING, MICH.

"Their work is simply marvellous. They saved us the expense of an additional boiler." —DETROIT HOOP & STAVE CO.

"After nearly two years' trial of your Hollow Blast Grates under 20 of our boilers we have experienced perfectly satisfactory results. We do not think any person or firm who lack steam can afford to be without them." —W. T. YOUNG & CO., Steam Gang Saw Mill, CLINTON, IA.

"We are greatly pleased with your Grates. We can make all the steam we require, no matter how wet our fuel is. For burning sawdust they are unequalled." —STEINHOFF & GORDON, WALLACEBURG, ONT.

"I do not consider a saw mill complete without Blast Grates. —AARON GORDON, DRESDEN, ONT.

"I put in a set of your Grates a year ago, and they pleased me beyond expectation. I spent hundreds of dollars in various contrivances to burn elm sawdust, but without success. I now burn all my dust. I can keep up better steam pressure than I could before with dry wood. —C. E. NAYLOR, ESSEX, ONT.

IT COSTS YOU NOTHING TO TRY THEM

WE GUARANTEE SATISFACTION OR NO SALE

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THE CANADIAN HOLLOW BLAST GRATE CO., ESSEX, ONT.

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J. O. GRAVEL, Secretary-Treasurer

J. J. MCGILL, Manager

F. SCHOLLES, Managing Director



Canadian Rubber Company

Capital, \$2,000,000.00

of MONTREAL, TORONTO and WINNIPEG

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SUPERIOR QUALITY

RUBBER GOODS

for Mechanical Purposes

RUBBER BELTING, PACKING, HOSE



FORSYTH.

Seamless Rubber Belting

Seamless Tube Hose

These Patents we control for Canada

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J. H. WALKER, - - Manager



... THE ... FLINT & PERE MARQUETTE RAILROAD

FROM
Port Huron and Detroit

Is the Short Line to
SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)
MT. PLEASANT, CLARE, REED CITY
BALDWIN, LUDINGTON, MANISTEE

AND
MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from
NEW YORK BUFFALO MONTREAL
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to ST. PAUL, DULUTH and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and much information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., General Manager. W. F. POTTER, Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

GENERAL OFFICE: SAGINAW, MICH.

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NET PREMIUMS
PAID TO THE

ONTARIO MUTUAL LIFE

on an ordinary Life Policy of \$1,000,
No. 1230 during its first 20 years,
issued for age 37:

In 1872... Paid \$26.57	In 1882... Paid \$13.29
1873... " 26.57	1883... " 12.33
1874... " 26.57	1884... " 11.69
1875... " 24.71	1885... " 11.35
1876... " 20.65	1886... " 11.35
1877... " 19.16	1887... " 12.19
1878... " 17.32	1888... " 12.88
1879... " 13.02	1889... " 12.41
1880... " 12.05	1890... " 11.91
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Total Paid in 20 years... \$321.29

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GOPPERINE
BEST MACHINERY BOX-METAL EXTANT.
CANADIAN MADE & STUMPS THE WORLD.
QUALITIES TO DO ALL YOUR WORK.
COOL HARDWARES ALL SELL IT
EASY AS AN OLD SHOE
GENUINE SAFEGUARD
FOR ENGINEERS
HIGH CLASS METAL

Rochester Bros.

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Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

"BUILD TO-DAY THEN,
STRONG AND SURE,
WITH A FIRM AND
AMPLE BASE."
— Longfellow.

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WISH THUS TO BUILD
an advertisement
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CONTRACT-
RECORD,
TORONTO
will bring you
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GALT MACHINE KNIFE WORKS



MACHINE KNIVES
OF EVERY DESCRIPTION FOR
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— Send for Price List —

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MAITLAND, RIXON & CO.

OWEN SOUND, ONT.

Saw Millers and Lumber Dealers

All kinds of Building Material kept in stock

WE MAKE A ... SPECIALTY OF **LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK**

Quotations furnished on application

The Georgian Bay Consolidated Lumber Co.

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JAS. SCOTT, Vice-President. C. P. STOCKING, Treasurer.

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PINE LUMBER, BILL STUFF, SHINGLES AND LATH

Shipments by Vessel or Rail

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DESERONTO, ONT.

MANUFACTURERS OF

Doors, Sash, Blinds, Stairs

And all kinds of House-Finishing Materials

CEDAR OIL for Purging Boilers

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Wholesale and Retail Dealer in

ALL KINDS OF LUMBER

LUMBER SHIPPED TO ALL PARTS BY RAIL OR VESSEL

WHITBY, ONTARIO

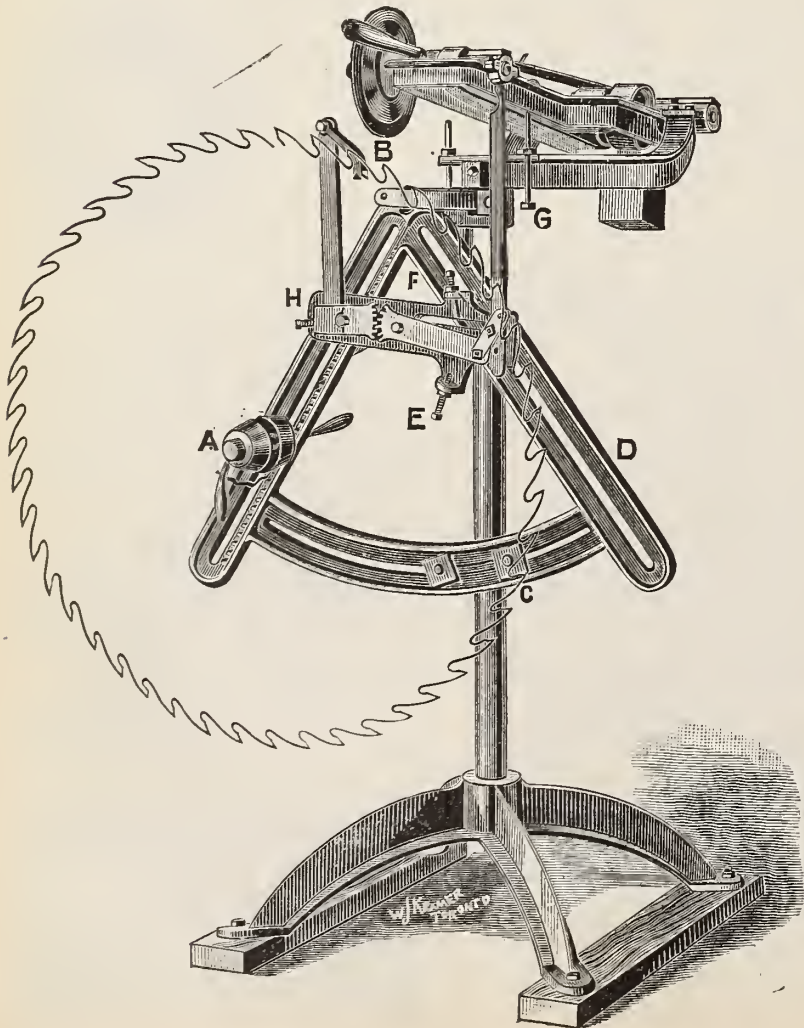
The XXX Saw Gummer and Sharpener

HAS NO RIVAL

FOR VARIETY, CAPACITY OR QUALITY OF WORK

OR FOR

SIMPLICITY, DURABILITY, CHEAPNESS



Will take saws from 6 inches to 6 feet diameter; sets the saw forward one tooth at a time automatically; sharpens any saw (rip or crosscut) perfectly, giving the teeth any desired pitch or bevel, and making all the teeth exactly alike. Will sharpen 20 teeth in an ordinary mill saw in one minute, or 100 teeth in a shingle saw in four or five minutes. The cut shows outline of mill saw 54-inch diameter.

GILMOUR & CO.
Lumber Manufacturers and Dealers

Trenton, Ont., 26th August, 1891.

F. J. DRAKE, Belleville, Ont. :

Dear Sir,—Your patent Saw Sharpener is giving us good satisfaction. We average about 100,000 shingles per day and sharpen the saws for both automatic and hand-feed machines with your Sharpener. As it keeps the teeth all perfectly uniform it must be easier on the machine and sawyer too. It causes also a great saving in files. We now only use about one ten-inch file per week. Before putting in your machine we used about six per week. As regards your Improved "XXX" Shingle Packer—it works first rate and is the only machine we could get that would press tight enough. We consider it the best we ever had.

Yours truly,
GILMOUR & CO.

MANUFACTURED ONLY BY

F. J. DRAKE,

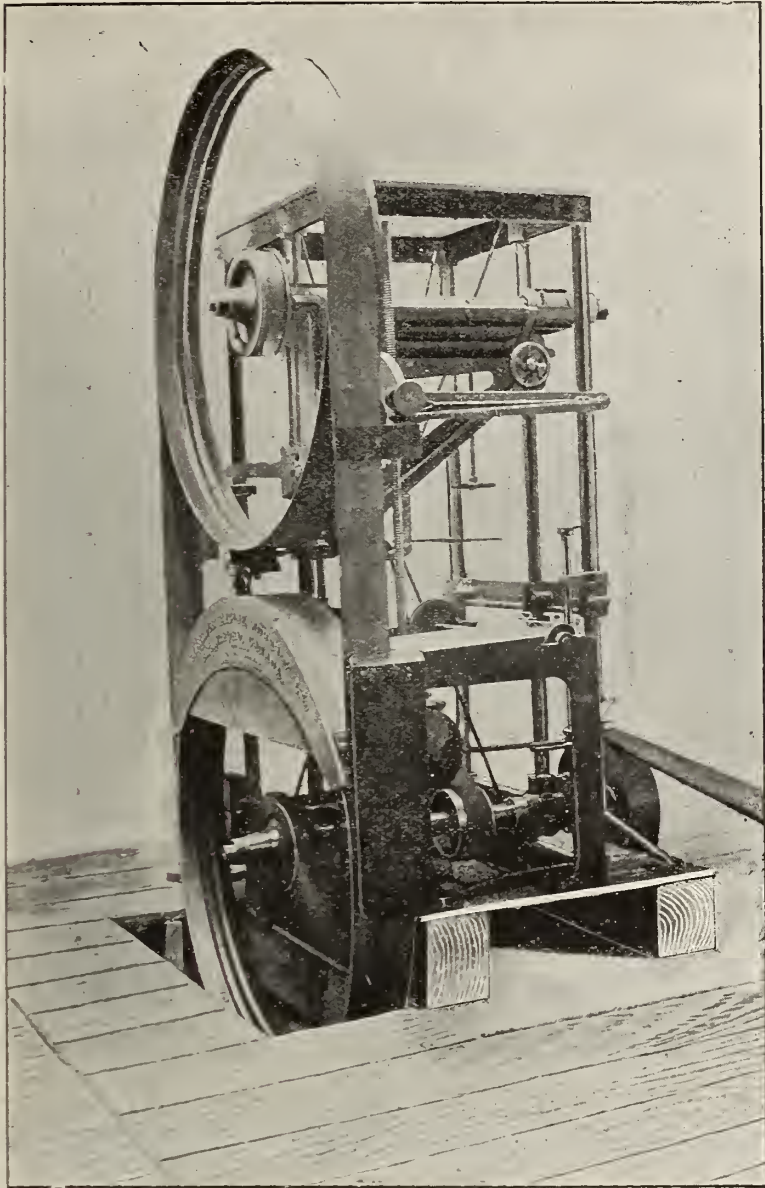
Belleville, Ont.

MAKE NO MISTAKE

ORDER

THE

Waterous No. 2 Band Saw Mill



From a photograph of a No. 2 Band Mill being tested in our works, saw running 10,000 feet per minute. Exposure 2½ minutes. Although only set up on blocks, not bolted down, such was the perfect balance of wheels, and stiffness and breadth of bearing of frame, no vibration was perceptible to the eye, nor to the hand placed on the frame.

It has more special features to commend it than any other mill

GREAT STIFFNESS

From its breadth of frame running full size to upper wheel.

PERFECT STEADINESS

Under motion ; secured by special machinery for turning wheels, and wheels being a ground taper fit to shafts not keyed on. No loose supports to permit of adjustment as in mills with outer bearings.

TENSION

The most sensitive ; upper shaft being placed in connected boxes hinged to triangular frames, tension weights have only to support wheel shaft and boxes. No friction of bearings or extra weight to overcome.

STRAIN ON SAWS

25 % to 75 % less than usually put on by the weights.

SHORTEST SAWS

By three to fifteen feet.

FOOTSPEED OF SAWS

The highest attainable with consequent increase of capacity from reasons given above.

OFF-SETT

The most simple, applicable to almost any carriage, saving expense.

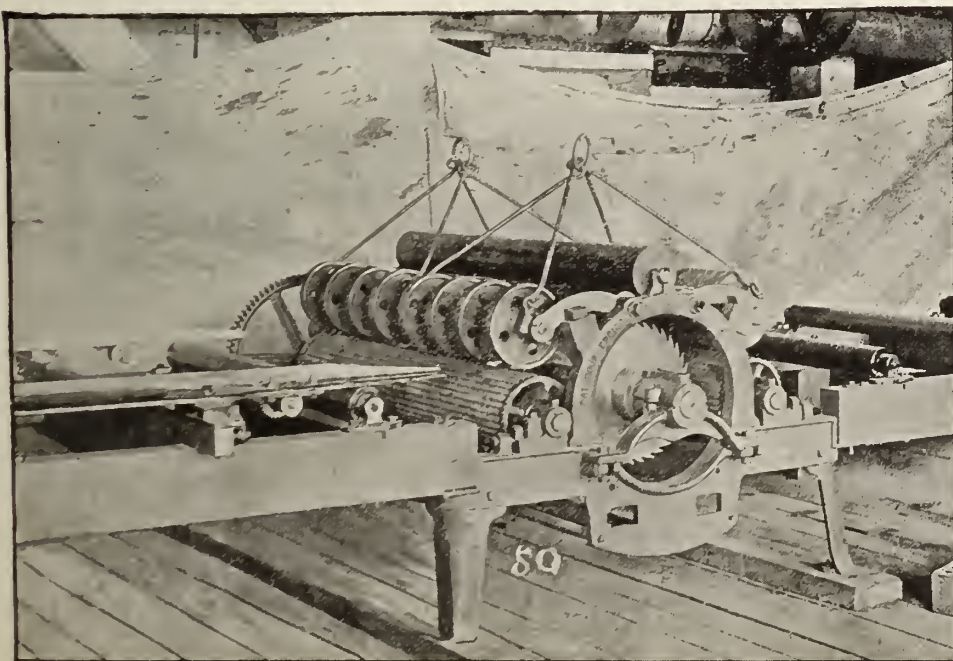
Nine—9—No. 2 Band

Mills sold this season to some of the largest Lumbermen in Canada. We can still fill a few more orders for early May delivery, as we are running our works 15 hours a day.

HAVE THE BENEFIT OF THE BAND ON THIS SEASON'S CUT

ORDER NOW. YOU WILL NOT REGRET IT!

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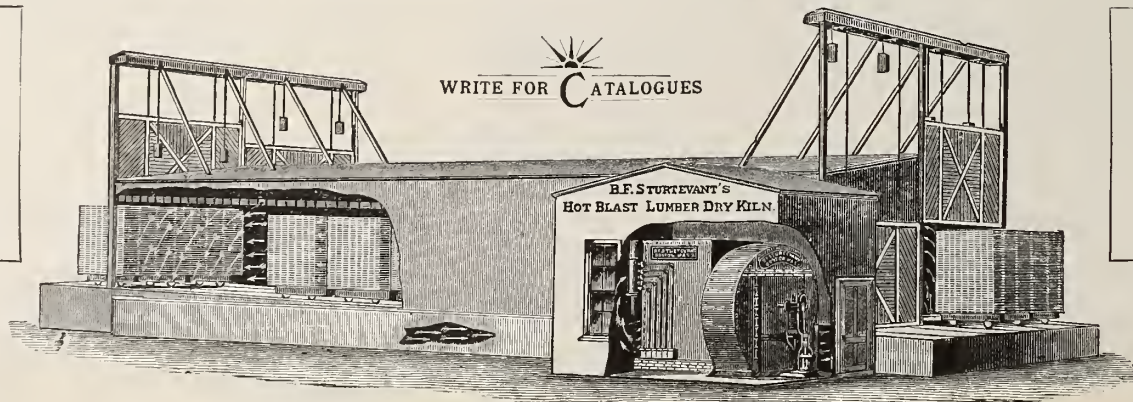
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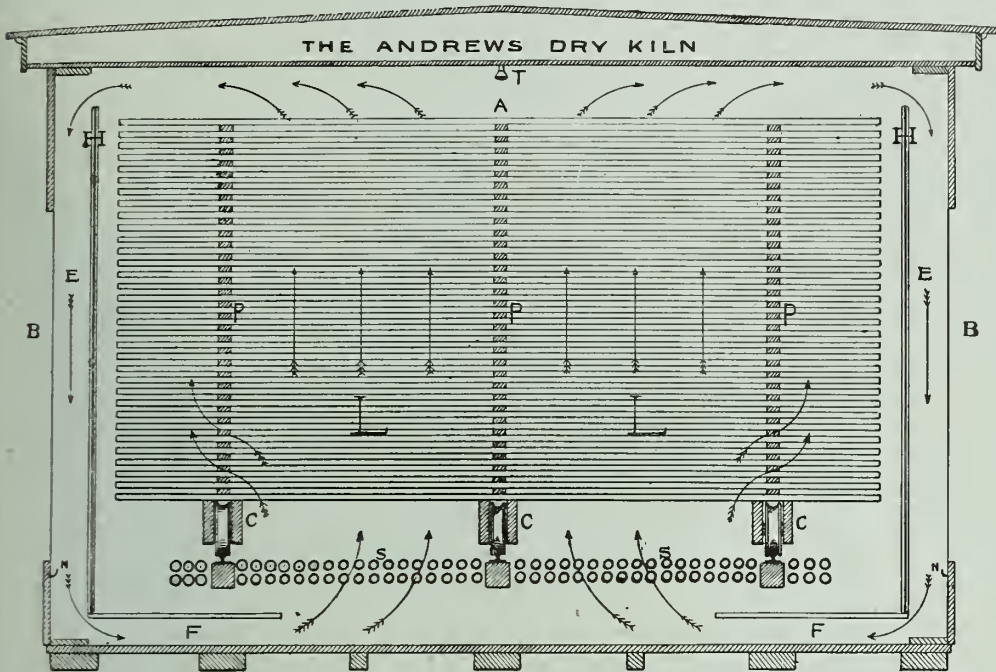
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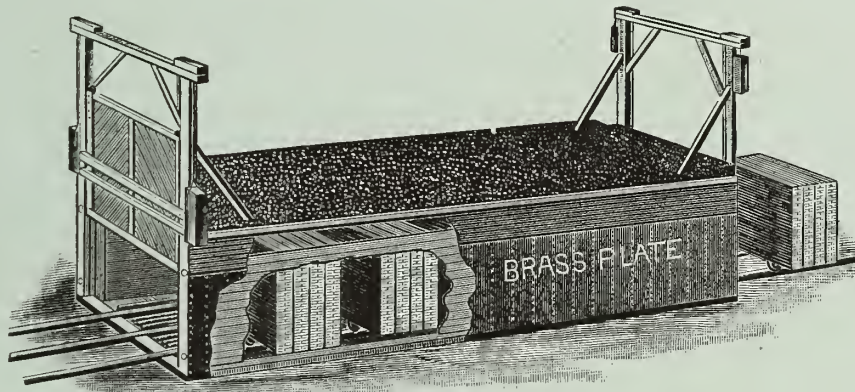
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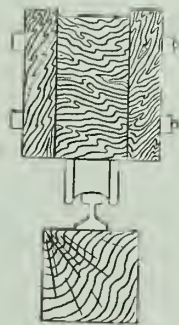
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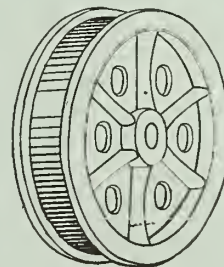
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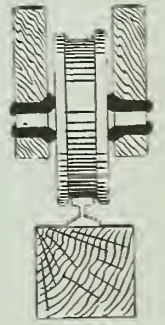
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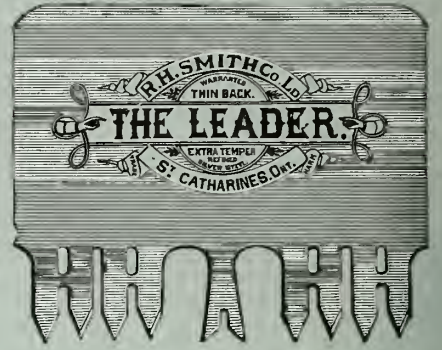
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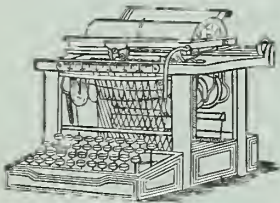
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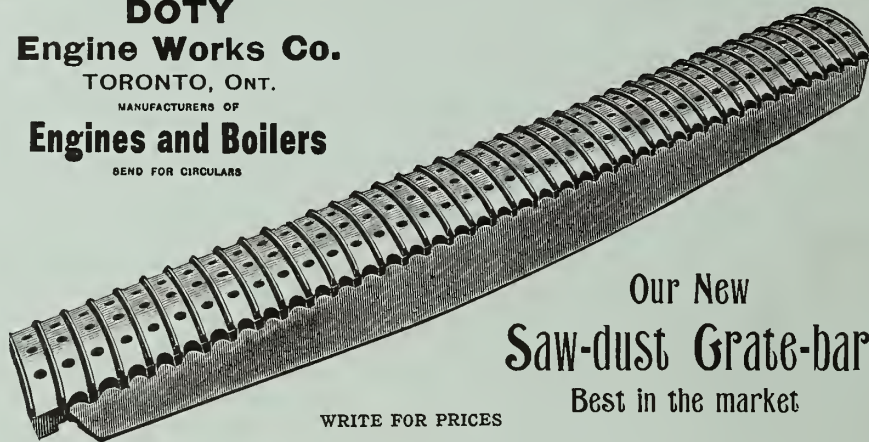
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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIV. }
NUMBER 5.

TORONTO, ONT., MAY, 1893

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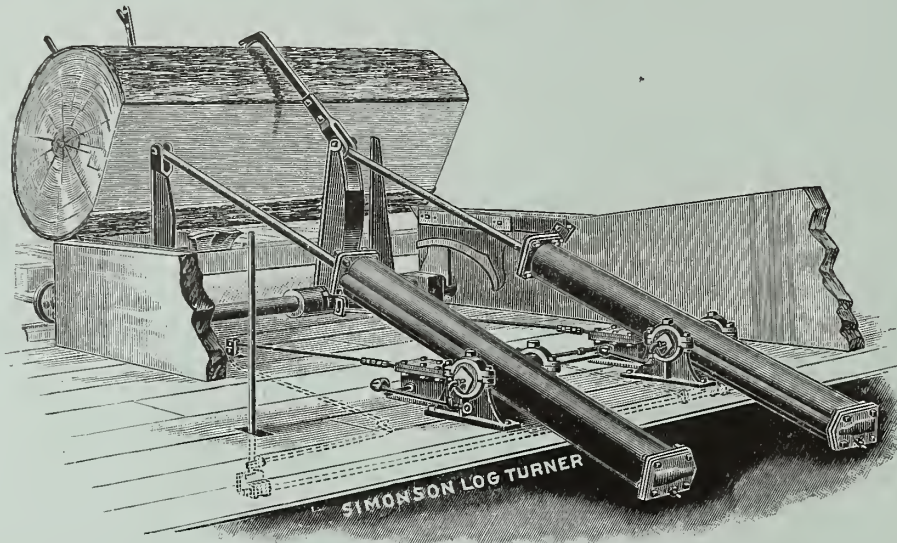
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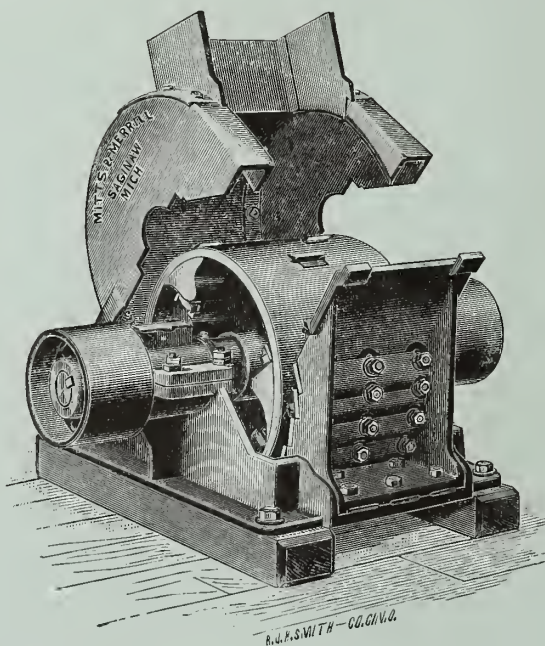
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THE CANADA LUMBERMAN

VOLUME XIV. }
NUMBER 5. }

TORONTO, ONT., MAY, 1893

TERMS, \$1.00 PER YEAR
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MODERN USES OF THE WINDMILL.

IN this hurly-burly age we do not give much concern to the history of the past. The mill, we are given to say, cannot grind with the water that is past, and we deal with most affairs of life on this principle. The ever-living present is with us on all occasions and it is the things of the present that chiefly engage our attention. Illustrations are not few, however, that show the importance that may be profitably attached to a study of the past. To-day is only a step that we had not taken yesterday, and to-morrow, when it arrives, will leave to-day in the past. Everything has at some time existed in embryo. Of the progress of plant life, animal life, mechanism, even that creature man, this is true.

In an age when the wondrous powers of electricity are becoming more wonderful every day few have any other thought of the windmill than of a very primitive method of creating power that has long since become obsolete. But the windmill has done much for the past and as we shall have occasion to point out further in these remarks, it has a future.

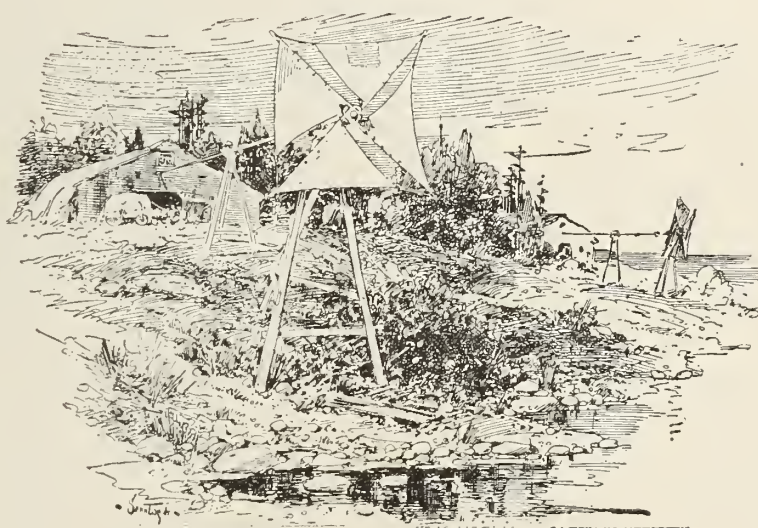
"The windmill," remarks Mr. Robert H. Thurston in an article in the *Engineering News*, "has helped to make a nation, has aided in the construction of the foundations of prosperity of more than one great country, and has lent picturesqueness to many a landscape which has a more serious interest for the historian and the statesman than for the artist. The "Rise of the Dutch Republic" was due to it, and the wonderful wealth and prosperity of that remarkable people came hardly less through the operation of windmills than through the exertion of their talent for commerce and manufactures. The Holland of the Middle Ages, comprised within an area of millions of acres captured from the fields of ocean and preserved against the assaults of the sea—by windmills. Without the windmill, there would have been neither country nor people to set such example to the rising nations. During the last fifty years or more this wonderful race has continued its "impoldering," and has ravished from the ocean nearly a thousand square miles of territory per year, and it has held it, largely by the aid of windmills."

In many parts of the world, as we approach the dawn of another century the windmill is an important factor in material progress. Mr. Thurston says: "Throughout Europe the windmill is still in extensive use, especially in the low countries adjacent to the mouth of the Rhine, where the writer once counted, from the car window, as the train swept rapidly across the fens, seventeen in sight at one time. In the United States, also, these inexpensive "prime motors" are used in immense numbers, especially for raising water and the minor tasks of the country districts. Mr. Alfred R. Wolff, in his excellent treatise on this subject published several years ago, gave the number which had been manufactured in a single city as above 5,000, and stated that there were hundreds of thousands in operation in this country, doing many kinds of work that may, without serious loss, be performed intermittently, such as pumping and storing water, and grinding grain on a small scale in rural districts.

"It is not known when the windmill was first invented. It is claimed by some early writers that it was known to the ancients, but it certainly was not mentioned in the famous work of Hero, in which the first steam engine is described as made two thousand years ago—the prototype of the modern steam turbine—and in which is

illustrated the steam fountain, the progenitor of all the steam engines, so-called, up to the time of Newcomen. Beckmann points to the fact that windmills were not mentioned by such observing and minute chroniclers as Vitruvius, Seneca and Chrysostom. They were used in Northern Europe at the very commencement of the Middle Ages, and probably some time before. The first of the Dutch mills seem to have been mounted on floats, so that they might be turned to the wind and adjusted as required. Later, and especially in Germany, mills were mounted on posts, upon which they could swivel; and still later Dutch mills were built like those employed by our own fathers and grandfathers in America, with a movable top, which could be turned toward and away from the wind as desired, carrying the sails and shaft with it, turning about its central spindle, through which the motion of the machinery of transmission was carried down into the mill below.

"There are, according to Mr. Wolff, two principal modern types in successful use, with a number of less well-known variations upon the standard constructions. These two classes are the "side-vane" and the centrifugal



WINDMILL USED FOR THRESHING GRAIN.

[This mill is on the St. Lawrence River between Pt. Levi and Riviere du Loup. Wheels and sails can be turned in any direction to suit the wind. Power is transmitted along the shaft (the direction of which is stationary) by means of a universal joint.]

governor mills. The first had its vanes set permanently at their best angles for the best states of the weather; while their positions relatively to the thread of the current is determined by a "side-vane" which revives the pressure of the wind in such a manner as to throw the whole wheel around and away from the wind, if that should become too strong. In the other form, the blades are pivoted on axes running lengthwise, and are turned, as their speed varies, by a governor, in such manner as to have, at every instant, just that inclination to the wind which will give the desired speed of rotation. In moderate winds they are held at an angle of 60 to 80 degrees with the wind; in very high winds they fall almost into the line of its motion. Of these one is a simple and peculiarly durable machine; the other excels somewhat in excellence of regulation, though costing more for wear and tear. As compared with the steam engine and other heat motors, the power of the wind mill is small and its volume large, but it is the most economical of all known motors for many locations, and, in the aggregate, it is doing an enormous amount of work for the world, and is destined to do vastly more, we may be sure, in the future."

A modern use of wind power, the development of which we are likely to hear more of in the future is that

proposed by Sir William Thompson years ago—its employment to store electric energy in "storage batteries," intermittently working with the variable winds, laying in a stock of energy to be afterward regularly and steadily given out in supplying light and power, and possibly heat as well—in short, for all the thousand-and-one purposes to which electricity is constantly finding application. For such work the fitfulness of the winds is a matter of little importance, and their variable efforts employed night and day, yield, later, a large and inexpensive store of power for transportation, as may be found desirable, and which may find use in every operation of the home and farm, or of the small industries of the cities.

TIMBER LIMIT SALES.

THE sale of timber limits of the Muskoka Mill and Lumber Company, which took place in the rotunda of the Board of Trade, Toronto, on April 25th, brought together a large number of representative lumbermen from various parts of Ontario, Michigan and other lumber centres. Prominent among those present were T. Bliss, A. P. Bliss, Maurice Quinn, T. W. Howry, Fred H. Howry, D. J. White, jr., C. W. Wells, of Saginaw, Mich.; S. O. Fisher, West Bay City; Jas. T. Hurst, Wyandotte; A. Maltby, Bay City; C. A. McCool, Cartier; J. D. Shier and A. McLeod, Bracebridge; Mickle and Dymont, Barrie; John Waldie, Jas. Scott, Robert Laidlaw, and many others of Toronto.

Mr. Peter Ryan, who conducted the recent Ontario Government sale with so great success, was auctioneer, but his persuasive wielding of the hammer failed to magnetize intending buyers into buying. In the *LUMBERMAN* editorial pages is discussed what would seem to be some of the reasons for the apparent unsuccess of the sale.

The sales effected were as follows:—

Robert Laidlaw, Toronto; berth 5, Wood, 2½ square miles, at \$6,600 per square mile, \$16,500.

Robert Laidlaw, Toronto; berth 4, Medora, 5 square miles, at \$2,200 per square mile, \$11,000.

J. D. Shier, Bracebridge; berth 3, Medora, 17 square miles, at \$1,500 per square mile, \$25,500.

Mickle, Dymont & Son; berth 1, Medora, 4 square miles, at \$350 per square mile, \$1,400.

The berths offered in Algoma were all withdrawn, the reserve bids not being reached. Berth 137, 36 square miles, was withdrawn at \$5,100 dollars per square mile, \$183,600. Berth 82, 36 square miles, was withdrawn at \$7,300 per square mile, \$262,800. The total properties sold represented the sum of \$54,400.

The sale of limits of Mr. Alex. Fraser, of Westmeath, conducted by Messrs. Dickson & Townsend, at their rooms, Manning Arcade, on Thursday, April 27th, like the sale of the previous Tuesday, fell flat. The highest bid reached was for berth No. 5, Paterson, 25½ square miles; \$3,530 per square mile was the amount, and the Charles Beck Manufacturing Co., of Penetang, the bidders. The properties were all withdrawn.

TO BE SYNDICATED.

Mr. E. W. Rathbun, of Deseronto and John Bell, Q.C., Belleville, are now on their way to London, England, to conclude the transfer of the big Rathbun interest at Deseronto to an English syndicate—mills, railroads, timber limits, and all the other flourishing industries built up by the Rathbuns on the Bay of Quinte.

ONTARIO CROWN LANDS.

THE report of the commissioner of Crown Lands, laid before the Legislature now in session, presents some interesting facts concerning the woods and forests of the province. We are told that the total collections for the year on account of woods and forests amounted to \$2,174,591.38, which includes \$1,317,798.59 on account of bonuses. The revenue derived from timber dues, ground rent, etc., was \$856,792.79. The sawn lumber trade has not been in as prosperous a condition for many years as during that just closed. The demand for all kinds of lumber has been active, especially for the American market, and in sympathy therewith there has been an advance in prices. This satisfactory condition, so far as the American market is concerned, is owing no doubt in part to the reduction in the import duty on sawn lumber, shingles, etc., entering the United States. The duty, which was a specific one of two dollars a thousand, having been reduced to one dollar a thousand, enabled the coarser grades of lumber to be sent to that market at a profit, and thus much of the tree that was formerly not marketable at a profit, and was wasted either by being left in the bush to burn or piled up in the mill-yard to rot, is now taken out and manufactured. The output of pine from the same area of territory will probably be considerably greater than it was before the removal of the duty, as everything that has any merchantable timber in it is now sawn.

There has been a demand for Canadian logs for export, to be sawn at saw mills in the United States, but the export has not been as large as has been publicly stated. Should the remaining dollar per thousand duty on Canadian lumber imported into the United States be removed at next session of congress, the advantage would all be in favor of manufacturing in Ontario, and it has been represented by those interested that in such case the export of sawlogs would be greatly lessened.

A sale of timber berths by public auction was held on October 13th last. The areas sold aggregated 633 miles, and were situated in the Nipissing, Algoma, Thunder Bay and Rainy River districts. Of the total area, 410 miles were in the district of Nipissing on the head waters of the Muskoka, Madawaska and Petawawa rivers, a small part of it being within the region proposed to be set apart as a provincial park. It is surrounded by licensed lands upon which lumbering is being actively carried on. The region contains a great many lakes and streams, well stocked with fish, while game of every kind is plentiful, and it is a great resort for hunting and fishing parties during the summer months. Settlement had approached from the Parry Sound district on the west up to the very confines of the pine timber, and overflowed into some of the townships. Considerable squatting had taken place and a number of settlers were resident with clearings, although every effort had been made to discourage people from settling there. No less than four railways are projected, all of which must pass through the territory, and the plans of the right of way of one of them filed in the department showed it to traverse the densest pinery of the whole tract. On this line—the Ottawa, Arnprior and Parry Sound railway—twenty miles on the west end have already been built, and active construction is proceeding on the eastern end, the intention of the company being to push the construction through as rapidly as possible. The Canadian Pacific railway, under the charter of the Atlantic and Northwest railway company, are also building a road parallel to and alongside of the Ottawa, Arnprior and Owen Sound railway, on the eastern end of which construction is in progress. Under the circumstances stated it was evident that the timber was becoming liable to destruction by fire in the immediate future, and that its early disposal would be prudent and advisable.

The sale of a considerable portion of this territory was called for by other considerations. Large sawmills had been erected at various towns, and lumbering industries, giving employment to and supporting considerable populations, had grown up at these points. From time to time it had been represented to the government that the limits from which some of these mills drew their supplies of timber were nearly exhausted, and that unless other sources of supply were found, some of them would be obliged to shut down for lack of material to saw, and it was urged that these mill owners should be

given an opportunity of acquiring further supplies of timber by offering this territory, which was tributary to them all, for sale by public auction. From these considerations, that is, the exposed condition of timber, the necessities of the mill owners, and the buoyant state of the lumber trade—it appeared that the time had arrived when the territory should be offered for sale as timber berths.

Advantage was taken of the holding of the sale to dispose of this territory, to offer two townships and a small part of a township in the district of Algoma, which lay within the mining belt and on which prospecting was actively proceeding—mining locations having been sold in some of them and a number of applications for others have been filed in the department. Those berths in the Thunder Bay and Rainy River districts remaining undisposed of at the sale of 1890 were also included in the sale, thus bringing the whole area offered up to 633 miles.

For the purpose of this sale, two important changes were made. First, the pine timber only was offered for sale; and, second, with respect to the berths in the Nipissing and Algoma districts, the Crown dues, payable when the timber is cut, were increased one-fourth, viz.: On sawlogs, from \$1 to \$1.25 per thousand feet board measure, and on square timber from \$20 to \$25 per thousand feet, cubic.

The attendance of the sale was large and representative of the lumbering interests of Canada and the United States. The prices realized were greatly in excess of those obtained at any former sale, the highest average per mile at any previous sale being \$2,859 (obtained at the sale in 1887), while at this sale it reached \$3,657.18. The total amount realized was \$2,315,000, of which the sum of \$1,227,665.63 on account of bonus was paid in during the year. Of the 633 miles offered, 564 were purchased by Canadians and 69 by Americans.

The Ontario cullers' act seems to be giving satisfaction and to meet the object for which it was passed. During the year just closed ten examinations were held at the different lumber centres of the province, at which 187 candidates presented themselves for examination. Of these, 136 were found qualified and granted licenses. This number, added to the 371 who were licensed last year, makes the staff now available for duty 507, practically all of whom have been able to secure employment during the present winter. The expenditure incident to the holding of the examinations was \$934.30: the fees received amounted to \$716.25, leaving an apparent expenditure beyond receipts of \$218.05. Deducting from this the amount received last year from fees in excess of the cost of examinations and refunds, the net cost to the department of examining these 507 men has been practically nil.

The fire ranging system continues to give satisfaction to those availing themselves of its advantages. Owing to the past summer being wet, no great damage was done by forest fires. The total cost of the service was \$31,976.38. The service of the year proper, however, cost only \$18,362.73, \$13,613.65 being carried from 1891, as, owing to the dryness of the autumn of that year and the numerous fires which took place, the accounts were not all received in time to be checked and paid before the end of the year. The amount refunded by the licenses was \$9,993.02, of which \$5,919.19 was on account of previous years, and \$4,073.33 on account of last year.

Since the last report, under the provisions of the last act for the protection of the provincial fisheries, all crown timber agents, forest rangers and fire rangers have been appointed ex-officio officers for the enforcement of the observance of this act, and a few additional overseers have been appointed. The revenue from permits, etc., was \$484.

PERFORATED BELTS.

AN engineer has been enquiring of us as to the value of belts perforated with holes. The argument of the dealer is, that the air is let out through these holes from under the belt, and being thus excluded, atmospheric pressure must be excluded, and the pressure of the atmosphere upon the pulley will help to secure a firmer grip without further tightening. This is on the supposition that the air is carried under the belt in the rush of

the belt on the pulley. This engineer does not want to pay for perforated belts if they do not do what is claimed for them, and yet he wants all the adhesion he can get with the least tightening. We do not believe that atmospheric pressure has anything to do with the driving of belts, and has no part in causing them to adhere to a pulley, whether perforated or not. It has been found that at high speed belts do not adhere so well to pulleys as at a slower speed, and this has been claimed due to the air getting between the belt and pulley at the high speed and preventing less adhesion from atmospheric pressure. It can be quite clearly demonstrated that the centrifugal force of the more rapidly moving belt counteracts to some degree the adhesion of the belt and causes it to adhere so firmly. This is the cause of this peculiarity, not the taking of air under the belt.

PERPETUAL MOTION.

I have read with much amusement, writes a correspondent of Power, the several designs lately described to create motion without expense. I regard them all as mere playthings, which never can have any real commercial value, from the simple fundamental truth that wherever there is an action there is also a reaction of the same magnitude. In other words, there can be no perpetual motion. But still I am inclined to hang a tail to this doctrine, in the form of a (to my mind, at least,) sufficient argument; namely, because we small things are not brainy enough to know how it could be done. There are manifestations in the physical world which would tend to show that not all motion is dependent on the consumption of heat, to which, under our present limited knowledge of natural laws, we have invariably to resort wherever we want force and motion for any purpose. A lamp-wick will draw up against gravity a considerable amount of a fluid to a height of five or six inches, without consuming any heat in so doing, as careful experiments have shown. And it is by no means certain that heat is consumed in the movements of the nutritive fluids of the highest tree, in its capillaries; nor is there any reason why it should, while a dead wick can do it within certain limits.

In spite of all theories, it is not certain that the heavenly bodies move under compulsion of heat-producing motion. True, we get light and heat from the sun, and it is but natural to suppose that these might, in some way, be helping in our progress through space. But then, the slightest variations in the amounts received would have to show perceptible variations in speed (one cycle compared with another), which is by no means the case. To explain the movements of the heavenly bodies by attraction, repulsion and gravitation needs no presence or influence of heat, no more than does the swinging of the compass-needle under the influence of iron near by.

In looking the whole ground over as impartial observers, we are compelled to say that we use heat to produce force and motion only because we do not know of any other way to obtain them in commercially valuable form, and not because there is no other way. As soon as we get far enough to have the natural powers of capillarity controlled so as to raise great amounts of liquids in very short times to a lasting height of only one foot above level, we have a costless power for any well-constructed turbine wheel. But that will be a long way off, as the discovery of so many things will be, in spite of all our little bit of knowledge. I shall always remember what Baron Liebig told us in a lecture at Munich University about thirty-five years ago: "If our earth were to be maintained and moved only by what forces and powers we know of and are able to understand, I certainly should be glad for some other place of safety." Spontaneous (or perpetual) motion is therefore possible, and occurs as a reality. But to try to obtain it by mechanical, pneumatic or hydrostatic means, as they are at command of our limited knowledge at this time, is simply folly. For us, pressure of any kind is accompanied by counter-pressure at all times, at all places, and under all circumstances.

A new pen often refuses to work. Stick the point in a raw potato, and it will then write easily and smoothly.

VIEWS AND INTERVIEWS.

An Historic Forest.

Epping Forest is one of the spots of the United Kingdom that has more than a local interest to English-

men. All readers of history have learned of it, while to-day it is intimately associated with the life of Londoners as the favorite place of recreation for the people of the world's metropolis. Some interesting facts and history in connection with Epping Forest are given by Dr. Edward Everett Hale in a recent article in the *Cosmopolitan*. At the time of the Long Parliament its area was 60,000 acres. In 1882 it was restored to the public. Epping Forest had its origin as a public domain in the fact of its being common land. The right of commonage in England still carries with it a great many privileges for the communities possessing it. In the case of Epping Forest its exercise interferes with the use of the place for public recreation. One right of the commoners is that of lopping, which enables them to lop for fuel in fagots any branch not bigger than a man's finger. This was a great damage to the trees; therefore, under the new regime the people surrender this right for certain other privileges, with a certain sum of money.

Logs vs. Lumber for Export.

One of the peculiar features of British export trade in lumber is the shipment of timber as logs, round and square, rather than as sawed lumber. Recent visitors from this side of the Atlantic to the London and Liverpool lumber docks give an explanation. Their observation is that lumber that was of the best quality when it left the mill, reached the English dock in an almost unrecognizable condition. Wide, clear boards and planks were split from one-fourth to one-half their length, others were split entirely in half, while others had lost a larger or smaller piece diagonally from one corner, sometimes two corners being missing. In other cases the edges or face had been gouged and battered by letting one piece drop endwise or cornerwise on to another from the hatchway above, while other pieces of first quality stock were marred and ruined except for a thinner thickness, by nail marks in the heels of the stevedores who stowed the lumber in the steamer's hold. One visitor declares that of a large number of lots of fine walnut, poplar, oak, gum, and other hardwoods, comprising a large portion of the several vessels' cargoes, hardly one came out even in fair condition. The only good stock which did not leave the vessel in a greatly depreciated condition was that carried in those vessels which were exclusively lumber carriers, consigned to a shipper's agent who was in a position to enforce the terms of a bill of lading, or else shipped f.o.b. port of shipment, the consignee assuming the risk of collecting damages from the carrier.

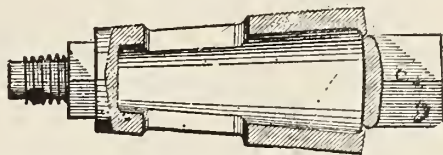
Walking In a Circle.

Everyone, and especially those whose work takes them over long distances through woods and forest or across the barren plain, have doubtless noticed that it is impossible to walk in a straight line unless some observable objective point is ahead of them for which they are making. The invariable tendency is to walk in a circle, and thus it is that many people are lost on a desert or in a forest. A writer in *Pearson's Weekly* says that this circumstance is due to a slight inequality in the length of the legs. Careful measurements of a series of skeletons have shown that only 10 per cent. had the lower limbs equal in length; 35 per cent. had the right limb longer than the left, while in the other 55 per cent. the left leg was the longer. The result of one leg being longer than the other will naturally be that a person will, unconsciously, take a longer step with the longer limb, and consequently will tend to the right or to the left, according as the left or right leg is the longer, unless the tendency to deviation is corrected by the eye. The left leg being more frequently the longer, as evidenced by measurement of the skeleton, the inclination should take place more frequently to the right than to the left, and this conclusion is quite borne out by observations made by a number of persons when walking blindfolded. Further, on measurement of the arms, it is found that in 72 per cent the right arm

is longer, showing that a considerable majority of persons are right handed and left handed. The inequality in the length of the limbs is not confined to any particular sex or race, but seems to be universal in all respects.

DEFECTIVE WATER COCK.

A foreign paper recently published the illustration given herewith showing a defect common to steam and water cocks. In case such a cock was attached to a



boiler blow-off, the most serious consequences might follow if an attempt was made to open it. Better measure all cocks before putting them on dangerous places.

PRACTICAL MECHANICS.

By C. R. TOMPKINS, M. E.

SINCE the introduction of the split pulley, both of wood and iron, the removing of couplings in order to apply new ones or change old ones from one part of the shaft to another is not so frequently called for, thus removing one objection to this as well as all other styles of couplings.

The necessary hangers to support the line and the distance from centre to centre of the bearings is another important matter to be taken into consideration. It was remarked not long since, by a writer in a certain paper, that in calculating the strength of shafting, only the torsional strength should be taken into consideration. This we consider an error, from the fact that lateral strength is of as much importance and should enter into the calculations as well as torsional, from the fact that it is not always convenient to locate pulleys in close proximity with the bearings, and where such is not the case, if the shaft is deficient in lateral strength, and springs with the stress of belt, it not only loosens it and deprives it of part of its driving power, but also cramps the journals, causing extra friction upon the boxes with loss of power, and frequent heat and abrasion. It is fair, however to suppose that a shaft having sufficient torsional strength to perform certain work will also have sufficient lateral strength, provided the distance between the bearings be such that the lateral and torsional strength will be equalized.

As we have before stated, it is a safe rule to apply to all shafting, by taking three times the diameter of the shaft in inches, for the same number of feet from centre to centre of bearings. Thus, three times the diameter of a two-inch shaft is six inches, and this, taken in feet, would call for six feet from centre to centre. One of two and one-half inches would call for seven feet, and so on.

Now, as much of the power in many mills is consumed or absorbed by the lines of shafting, arising from imperfect bearings and bad lubrication, it becomes necessary that this part of the outfit should not only be selected with the same care and receive the same care and attention as any other part of the machinery. It is no uncommon thing to find at this late day, in some of the older mills, a shaft of three inches in diameter or more loaded down with pulleys of large diameter and supported upon bearings about four inches long, and groaning under this weight at a speed of perhaps not over one hundred and fifty revolutions per minute, when a shaft of two or two and one-quarter inches in diameter, if run at a proper speed, with pulleys of not more than one-half the power, so far as the shafting is concerned, and would be more appropriate; and instead of bearings four inches long, they should never be less than eight inches for shafting up to two and one-half inches. Above that size a fair rule is three times the diameter of the shaft.

Post hangers are frequently used in the place of the drop hanger, but the objection to post hangers is not so much in the style of hanger as the objection to the posts, especially where the shaft is hung overhead. In order to place the bearings the proper distance apart the posts are so numerous that they become a serious obstacle to handling the lumber or placing the machines to the best advantage. In some mills, in order to avoid this, both

post and drop hangers are used; the post hangers being located at each and the drop hanger suspended from the ceiling to support the centre. This is not good practice, from the fact that those attached to the post are not materially affected by the settling of the building, while those that are suspended from the ceiling are not only affected by the settling of the building, but the shrinkage of the timbers also, and it will be found a difficult matter to keep a shaft so arranged in align. Therefore, whenever post hangers cannot be conveniently used upon all the bearings, it is better to dispense with them altogether and use the drop hanger for all bearings.

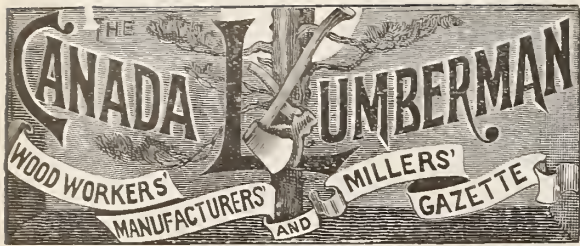
In selecting the hangers it is not only the weight of the hanger that should be taken into consideration, but the strength and convenience of adjusting the boxes is an important item, and it is not always the hanger that contains the greatest number of pounds of cast iron that is really the strongest. Probably what is known as the double-braced hanger possesses the greatest strength for the least number of pounds than any style; besides, this style of hanger has the most convenient method of adjusting the boxes in each direction, so that should the shaft get out of align by the settling of the building or shrinkage of its timbers, it is easily corrected by adjusting the boxes without disturbing the hanger.

A line of shafting is not always as easy of access as a machine standing upon the floor, consequently it is more liable to be neglected, and not as much attention is given to its proper and perfect lubrication. Among the many different devices that have been introduced from time to time for this purpose, the self-oiling box that was introduced a few years ago and at one time adopted by nearly all the leading manufacturers, was probably one of the best systems of lubrication that has been introduced. This box was provided with a reservoir below the bearing to contain the oil, which was drawn up to the journal by capillary attraction to tubes filled with cotton wick or other fibrous substance. Openings were provided at each end of the box that formed the bearings so that the oil that was drawn up through the tubes to the journal could flow back again into the reservoir to be used over again until it was worn out and become so thick that it would not flow, then the box and reservoir required cleansing and replenishing with oil, which usually occurred once in from three to four months. But the trouble with this box and no doubt one of the principal reasons why it was abandoned by most of the manufacturers, as well as many other good devices, is neglect and want of proper attention. If the box were perfectly safe for three months, the chances are it would never be looked after and cleaned in six months, unless it became dry and began to heat, when the box was not only frequently spoiled but the shaft badly cut, and the box was condemned by mill owners, and for no other reason than from their own neglect.

The glass oiler is another device that has merit in the economical use of oil, and for good lubrication, but like the self-oiling box, it needs care and attention. The principal objection to this is that the fine dust which pervades the atmosphere of all wood-working establishments, settles into everything, the glass oiler not excepted, and no matter how perfectly the flow of oil may be adjusted, the tubes are liable to become obstructed with dust and stop the flow, and before one is aware of it the journal is dry and cutting, unless the heat admonish the engineer or other person in charge of it of this fact.

Perhaps, under these conditions, the box that is now in general use is about as good as any for wood working establishments. This box is furnished with one or more moderate sized reservoirs attached to the cap and protected from the dust by hinged covers. Into these reservoirs may be packed a quantity of waste or fibrous substance to retain the oil, which gradually filters through it, and if these are replenished with oil once a day there is but little danger from heat and abrasion.—The Artizan.

Messrs. Steinhoff & Gordon, of Wallaceburg, Ont., manufacturers of cooperage, last year did a business represented by 60,000,000 staves, 12,000,000 hoops, 1,000,000 heads, besides selling 4,000 logs and 8,000 cords of wood and bolts, totaling in value nearly \$500,000.



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J. S. ROBERTSON, EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

WHERE THE LOG DUTY HITS.

THE sale of timber berths which took place at the Board of Trade rooms in this city on the 25th ult., a report of which is given in another page, presents some features bearing on the question of the export duty on logs which has been so much discussed lately.

The berths on the North Shore of the Georgian Bay, eight in number, were offered by the Muskoka Mill and Lumber Co. and the Collins Inlet Lumber Co. They are admitted to be valuable, many of them with large areas of virgin timber, just what is eagerly sought for by American buyers. They are all of easy access to the Georgian Bay, so near that logs could be delivered from them on the waters of the bay in the month of May or early in June. There were a good many Canadian lumbermen at the sale, and a large contingent from Michigan; yet not one of the berths was sold. Offers were made on two of the berths, but did not reach the reserve bid. On the other six no bids were made at all. Lumber is higher now than it has been for many years; many Michigan lumbermen are looking for standing timber, and yet notwithstanding all this, the sale was in a way allowed to go by default.

An explanation was offered at the close of the sale by Mr. Fisher, of Bay City, Mich. Speaking on behalf of the American lumbermen present, he said that they had come over to buy timber, but wanted a guarantee that no export duty would be placed on logs, as they could not afford to place American money in this country with the risk of it being taken from them again by any legislation. Mr. Foster's allusion in his budget speech to the demand made by some sections of the country for a re-imposition of the export duty on logs and his promise to reconsider the whole question, has had an unsettling effect on the values of this class of property, and what is wanted now is a permanent settlement of the policy of both the United States and this country, so that business can be conducted on a straight

basis, and without any disturbing elements cropping up now and again. The amount of money employed in the lumber business is so large and investments are so heavy, that it would only be fair to those interested to have the matter definitely settled.

When Mr. Fisher finished speaking some one in the audience shouted "give us free lumber and we will give you free logs." This of course Mr. Fisher could not do any more than the sellers could guarantee a continuation of the present policy of free logs.

At present Canadian lumbermen are at some disadvantage alongside of the American manufacturer. The Americans can take logs from Canada without any export duty being charged, saw them into lumber in the United States, and so place their lumber on the market at a relatively lower rate than if manufactured in Canada. This is aside from the advantage they possess in disposing of their refuse, to a considerable extent, in connection with their salt wells, and the better market, which attracts buyers, produces competition, and as a result increases prices. Whereas the Canadian lumberman, sawing his logs in this country, and shipping his lumber to the United States, is met by a duty of \$1 per M in white pine, and \$2 per M on red pine and spruce.

The view is held by many Americans that the next Congress will abolish the present duty on lumber altogether. If this is correct it will be a fair and reasonable solution of the whole difficulty. All that Canadian lumbermen want is a fair field and no favor, and surely the much vaunted push and go of their American congeners would be equal to a fair competition.

ETHICS OF DISCUSSION.

To employ the language of a wise man of old, whose words are quoted in many different forms of literature, it is true, under perhaps all conditions, that "A soft answer turneth away wrath, but grievous words stir up anger." A mealy-mouthed discussion of any subject, even though the sacred cause of religion were in question, will not be favored by any healthy mind. As we read the purest writers, either sacred or profane, chaste though they be, perspicuity and vigor of expression are not wanting. A "soft answer," however, need lack none of these points.

These remarks, which it is not necessary to amplify to any further extent, are suggested by a letter from Buffalo, signed "Willard," published in our ELI page, wherein our correspondent, "Canadensis," of last month, is brought to book for maligning the good name of Uncle Sam, by saying "The name American is synonymous with bad faith, the grossest deception and the lowest forms of commercial morality." This is a strong statement to make, and "Willard," we think, has made a good case, individual to Canadensis' own article, as well as general in its application, when he intimates that this writer weakens what was otherwise a well-constructed and clever article by the unnecessary insinuation of unfaithfulness against a neighbor. Likely "Willard" himself will admit that his reply is not cast in the most parliamentary terms—perhaps it was intended more as a piece of bluff—and it has not been given room in these columns for the purpose of encouraging this class of discussion. We appreciate the good taste of LUMBERMAN readers too highly to allow any such a practice to grow.

It need only be remarked that the more closely one adheres to the ethics of good taste in argument and phraseology the more surely will the object aimed at in the particular topic under discussion at any time be secured. We might apply this comment with some directness to the various trade discussions—the log duty not excepted—that necessarily take place between Canada and the United States. There is too great a disposition to let national prejudices and animosities warp the judgment of disputants on either side. Not only is the dignity of argument sacrificed by the practice, but the force and strength of what is stated is materially minimized.

EDITORIAL NOTES.

A COMMUNICATION from Mr. Wm. Little, of Montreal, Que., on the Canadian pine lumber trade, has reached us too late for publication this month. It will be given place in the June LUMBERMAN.

THE Paper Trade and Wood Pulp News, of New York, quotes a contemporary as saying that at the present rate of cutting, the spruce timber in the Adirondack forests will not last over ten years. The same paper further remarks: "To an outsider it would appear that the pulp men do not seem to have realized the situation, and have taken feeble measures to supply themselves with ample areas of raw material. They have had an idea that spruce was inexhaustible in the great Adirondack forests, and that they would always get the supply they needed." Our paper trade contemporary replies to these comments by saying: "The first assertion is doubtless quite true. But the pulp men will hardly allow themselves to be caught unawares. They are, even now, prospecting for spruce timber all over the northern end of this continent, more energetically than did ever a miner prospect for gold in the far west. The obvious resource now is the Canadian forest. The question is, how shall we get it? By annexation, by purchase of timber lands, or simply by buying the cut timber? It is worth studying." The matter is also worth studying by Canadian timbermen and those interested in the manufacture of pulp.

THE great fire in Hull, Eng., a few weeks ago, destroying a million pounds worth of the Wade Timber Company's property, is in some respects a parallel case to that of the Carnegie Homestead troubles on this side of the Atlantic. It is an outcome of the recent strike among the dockers of that port just as the destruction of the Carnegie property followed the strike of the Homestead mills. However far justification may be urged for precipitating the strike, and even though it may be denied in some quarters that the strikers are to be held responsible for the fire, all evidence shows that somehow it is one of the disastrous results that has followed the strike. When we consider the terrible effects in so many different ways of the great strike at the docks on the Thames a few years ago, followed by the Cardiff strike, and now the Hull strike, without making any reference to the Lancashire weavers strike just ended after five months stagnation of mills and men, and turn to this side of the Atlantic, and sun up the cost of the Homestead difficulties, the big railroad and the miners strikes a few years before that, not to extend the list any further, it is not to be wondered at that earnest men are asking the question, whether some rational means cannot be adopted to avoid these great losses in life, property, means, and worst still in the moral character and purpose of all concerned.

SOME few months ago two communications appeared in our ELI page concerning Kauri pine. British Columbia was given as the place of growth by one authority, a statement that was corrected later by a local authority showing that Kauri pine owed its origin to New Zealand, little or none of it growing in the Coast province. From the New Zealand Official Handbook for 1892 we learn that the gum which is exuded from the Kauri tree is an important item of commerce to that country. In 1891, 8,388 tons of this gum, valued at £437,056, were exported to London, Eng. Thirty years ago the Maoris were the only people who employed themselves in the searching for this gum, which at that time was to be found on or cropping out of the surface of the ground, where, perhaps ages before, forests of kauri had stood. After a few years' exports the Maoris began to dig for the gum a few inches below the surface. As the uses for it increased, its market value rose, and presently Europeans betook themselves to digging for it, until, at the present time, there are probably 1000 whites and 1000 Maoris engaged in the work in Auckland provincial district, where alone the gum is to be found. Hence the output has steadily increased during the last thirty years, notwithstanding that the gum is not being reproduced, except to a very inappreciable extent, in the existing forests, and these are being cut down because of the commercial value of the timber. Within a measurable period of time the gum must cease, although it is expected that, at the present rate, it will take fifty years to exhaust the deposits in the Auckland district.

The Gauls, to make handles for their axes, cleft the branches of a tree, placed the axe in it, and left it till the wound in the wood had been completely healed.



"IT is a mistake to suppose," said Mr. C. H. Clark, representative of the Burton Bros., Barrie, Ont., "that southern pine is not coming into competition with northern white pine." Mr. Clark's work takes him across the border frequently, where he is constantly mixing with United States lumbermen and has an opportunity to study lumber conditions. At the time of the present conversation he had only returned from the eastern States a few hours. "While it is true," continued this well-known Canadian lumberman, "that for some uses white pine has no substitute, and certainly not in southern pine, yet the difference in price between the two woods is so large, that southern pine is being made to do service where northern pine would otherwise be used. Lumbering is carried on at much less expense in the south than in the northern districts, and though the distance from the eastern markets is very great the freight rates have been made low enough to make this condition no drawback. And when we commence to talk about a timber famine such a thing seems hardly possible if for a moment one considers the immense tracts of forest yet untouched to be found all through the southern States. These are conditions that in Canada we may profitably consider when disposed to be over dogmatic in the opinion that the United States must have our Canadian pine."

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John Armstrong, of the lumbering firm of S. & J. Armstrong, Commanda Creek, says: "I employ about a hundred men, and we are getting out 5,000,000 feet for the Ontario Lumber Co. We pay the foreman \$45 a month, the cook \$35, the choppers, sawyers, rollers and loaders \$23, the trail cutters and roadmakers \$16 to \$20, and the river drivers \$35 to \$40 a month." "What do you feed them on?" "Well, for breakfast they get hot pork, beef, potatoes, beans and pancakes, good bread, no butter, but lots of apple sauce, currants, syrup, biscuit cakes and strong tea that would float an ironclad, or good coffee if they prefer it. The noon meal necessarily is eaten in the bush, and is composed of boiled pork and bread chiefly. When they come in at night they get the very best meal that can be got up in the woods. It is similar to the breakfast, with the exception that they commence with big tureens of soup and wind up with cake, pie and pudding. Sunday is as strictly observed in the middle of the wilderness as it is in Toronto; yes, better observed. It would do you good to see them on a Sunday morning after a wash-up, a clean shave and a biled shirt, sit down to the long dining table after it is cleared off and read their Bibles or prayer books. During the day they write their letters, that is those who have any correspondence. Some of them indulge in grave and learned religious discussions. Jonah in the whale's belly, Daniel in the lions' den, David and Goliath, and the young man Joseph, who was sold by his brethren, are their favorite characters."

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Mr. Hurst, of Wyandotte, Mich, when asked the question, a few days ago, during his stay in the city, "What has become of the proposed American syndicate that was going to buy up our timber limits," replied, "the possibility of an export duty on logs stopped that." "Is the fear of an export duty then keeping out American capital?" was the next question. "I should think it was," said Mr. Hurst. "I know of several sales that have been cancelled just on that account. In one instance the purchaser had up a deposit and sooner than take the timber he forfeited the deposit. If the government gave an assurance that no export duty would be put on logs Canada could have all the capital we have. But under present conditions we don't care to risk it." I chatted with Mr. Quinn and other Michigan lumbermen during the progress of the recent timber sales in this city and they all talked the same way. Canadian lumbermen with whom I talked think it is simply a game of bluff on the part of the Americans. It is not the best time of

the year to buy limits. Buyers can afford to wait, and in the interval present high prices may recede some, and later perhaps the Minister of Finance will have made up his mind what is best for the lumber trade of Canada. There seems to be little doubt that in the meantime he has created an opportunity for Americans to give a black eye to present Canadian lumber sales. At least this is the thought I found influencing lumbermen, as I moved around among them. In a word lumber conditions are a bit unsettled and unsettledness never helps business.

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A well-known Buffalo lumberman, who signs himself "Willard," makes this comment on the log symposium that extended through the March and April LUMBERMAN: "I read the symposium in your March issue with interest. I disagreed with some statements therein contained, but as a whole the articles were fair ones and the facts fairly stated. Your April issue is received, and I have read the criticism of 'Canadensis' on the March article referred to above. I beg to say that the latter article is bereft of weight on account of the evident bitterness and narrowness of its author. Such remarks as this: 'The name of American is synonymous with bad faith, the grossest deception and the lowest forms of commercial immorality,' and several others indicate that, either he is a fit subject for a lunatic asylum or else that he has not been about the world enough to know decency, worth, upright dealing and integrity from an ash log. My guess is that 'Canadensis' has never been one hundred miles from home, or else he is one of those 'cranks' who forever imagines that the United States is greatly in earnest and very anxious to annex Canada. Dear Canadensis do not be alarmed, the United States does not want Canada. I am certain that if the matter was voted upon to-day, 99 out of every 100 citizens would say 'No,' to the question of annexation. As to your timber, (I doubt if Canadensis ever owned a standing tree) when your last standing timber in the Dominion of Canada shall have rotted, the people, your great, great, great grandsons of Canada can still come to the United States, and purchase their supply."

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That there wont be much done in the export shingle trade this year in British Columbia is the opinion of Mr. H. H. Spicer, of Vancouver. "I have just returned," said he, "from a lengthy trip to eastern Canada, the New England States and Manitoba, and that is the opinion I have formed. I find that we cannot compete with the Puget Sound mills in the New England States on account of the duty. If the C.P.R. were to give us a reduction on rates equal to the duty, we could do a good trade, but I suppose that would not pay them. In eastern Canada I found that people have not yet discovered that it is cheaper to pay a little more for British Columbia shingles and have a good roof for years, than to buy cheap pine shingles, and have to repair continually. The pine shingles they are cutting now are not so good as they used to be, as all the best logs they are cutting up into lumber. On the whole the year will be a good one for the lumber trade in the east, especially in the Ottawa Valley. In Manitoba too, the outlook is far from encouraging. The dealers have a considerable stock on hand, and I found that just before I got there, a representative of a British Columbia company had been in Winnipeg quoting shingles \$2 per M. delivered. Shingles are being sold throughout Manitoba at the ridiculously low price of \$2.10 to \$2.25 per M. This state of affairs is not only unsatisfactory to the millmen here but also to the dealers, one of whom told me that he would much rather we formed an association and so regulate the price. Why, he told me they would rather pay as high as \$2.85 and \$3 if they knew a competitor could not buy for less. As it is now they run considerable risk in buying a carload, as another man may get a cut on prices, and cause them to sell at a loss. I don't know what the other millmen are going to do, but I shall only cut as few as possible, if these prices continue. I prefer to look on, and watch what the outcome will be."

* * * *

Mr. P. Colton, forest ranger and valuator, has been making an examination of the Indian reserve on Lake Nipissing, known as Dukis reserve. It is forty-seven miles in extent, and is said to be one of the

finest timbered districts in the Dominion though Mr. Colton was wary in going into particulars. The head of the tribe, Chief Dukis, who resides on the north shore of Lake Nipissing, had always refused to consider the matter of parting with any of his patrimony. But it is reported that more recently he has changed his mind and it is likely the reserve will be sold. According to the law governing Indian reserves the property cannot be sold by private sale, but must be put up to sale. Much speculation is indulged in regarding the value of the limit. Men who are supposed to be good judges value the limit all the way from \$400,000 to \$600,000. The quality of the pine is first class and neither fire nor axe has ever touched it, with the exception of one place where a fire got a foothold, a mere strip along the southern boundary. A portion of the limit is on an island in Lake Nipissing and the other portion on the mainland. A great deal of the timber is of the yellow pine variety, the best of the pine species. Mr. Colton says that if it is advertised for sale and thrown open to public competition, with sufficient time given for examination by those desiring to purchase, no Canadian will ever get it. He thinks that several American firms have had their eye on the limit for some time and are only waiting the opportunity to make a bid for it. The limit is so situated that the lumber can be taken to the Georgian Bay with the greatest ease, the French river being the connecting channel between Lake Nipissing and the bay. The cable tugs now getting into general use in the lumbering business can be operated right up to the limits, and the use of these tugs facilitates the getting out of the timber, one hundred fold over the old style of manual labor.

* * * *

Lumbermen have watched with interest the construction and development of the Manchester ship canal, as it has been supposed that the Canadian lumber trade, as much, perhaps, as any other department of commerce, would be benefitted by this new means of transportation. Mr. John Dyke, the Canadian government agent at Liverpool, Eng., was lately summoned to appear before the select committee of the House of Lords to give evidence, as an expert, touching the influence of the Manchester canal on Canadian export trade. In an interview afterwards he said a great drawback towards the development of Canadian trade in many articles of produce with the dense mass of consumers of which Manchester is the centre, are the freight rates from Liverpool to Manchester. They are just sufficient, said Mr. Dyke, "to shut out a good deal of Canadian trade and check expansion. With the canal completed, you may note how material the saving would be when the produce is carried direct from Canada to Manchester and there brought within carting distance of the consumer." Speaking directly of the timber trade Mr. Dyke said: "Of the Canadian deals landed at Liverpool by the cattle steamers fully 70 per cent. go to Manchester and district, or through Manchester to their destination. A standard of deals (165 feet) occupies about the same space as a ton of hay, and a ton of hay occupies about the same space as twenty barrels of apples, and the saving in freight would therefore be a material item in the imports for the Manchester markets. Wood pulp comes now almost wholly from Norway and Sweden. In 1891 the British imports were 156,464 tons, and in 1892, 190,938 tons, of the value of nearly a million sterling. A large proportion of this import from Europe is conveyed from Hull to Manchester and neighborhood by rail for the manufacture of paper, mill boards and other supplies used for packing Manchester goods to be sent to all parts of the world. Dimension timber is also used in large quantities for the manufacture of agricultural implements, while the cotton mills take immense quantities of spools and other wooden work which Canada may supply, as well, if not better, than other countries."

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Mr. Eddy, of Hull, Que., says: "Canada's supply of pulp wood is worth more in dollars than the pine supply in diamonds. The United States pulp mills get more than half their raw material from Canada. If a prohibitory export duty were imposed, the sterile land from St. John to the Lake of the Woods would be thickly dotted with immense pulp mills and accompanying villages, and United States capital and labor would be introduced very largely."

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE lumbermen of the Chaudiere are busily engaged completing improvements and repairs in order that their mills may be ready for running as nearly as possible by the first of May. The Perley mill, which is undergoing important improvements will hardly be ready for operation before the end of June.

Lumbermen generally look for a satisfactory years business. The winter has been favorable to the getting out of a large crop of logs, and in addition to these there are large quantities of logs to be brought down that were stuck last summer on account of the unusual low water in the Ottawa and its tributaries. The cut of the mills will likely exceed that of last year. The following estimates are given of the work of several leading firms: Buell, Hurdman & Co. have cut over four hundred thousand logs on their limits this winter. They expect to cut about fifty million feet of lumber this season which is a similar figure to that of last year, although the quantity of logs cut in the bush is somewhat larger than that of 1892. The Bronson firm expect to have a similar cut, both in the bush and at their mill. Mr. J. R. Booth will certainly have a greater output of lumber than he has ever had. The new mill which is expected to begin running about July will cut some sixty million feet of lumber, which together with the cut of the large mill will make a total cut of about one hundred and seventy million feet. The cut in the bush this season will be between eight and nine hundred thousand logs.

INDIFFERENT LENGTHS.

The Messrs. Conroy's are counting on starting their mill at Deschenes on 1st May.

Another large water wheel has been purchased by Buell, Hurdman & Co., and been placed in position beneath the dimension shed of their mill.

Local lumbermen have been notified that cribs of timber passing down the Ottawa river and through the Grenville canal during the coming summer months must not exceed twenty-eight feet in width. Alleged injury to the banks of the canal by the passage of rafts of unusual size is given as the cause for this order.

Messrs. Shepard, Morse & Co. have sold two large rafts of square timber got out in the Kippewa this season. The timber will be floated to Quebec, and then delivered to the purchaser. It is understood that good prices were realized. The two rafts will contain nearly 400,000 feet. This is the first sale of this winter's cut of square timber.

Edwards & Co., whose new mill at New Edinburgh, will be ready for sawing next month, are already under contract to saw 25,000,000. The mill will likely run day and night. A new invention, an air compressor for lifting logs and lumber, is in operation in this mill. This works under the saw table and carts the logs, doing away with a great deal of manual labor.

An alligator tug has been despatched by Shepard & Morse to their Kippewa drive. This tug is worked by a steel cable and can not only tow logs on the lake, but can propel herself over the portages that lie between the lakes. Since the introduction of these tugs, several of them being in operation last season, a perfect revolution has been worked in the driving of logs, as six men on a tug can do as much as fifty men without one. The tug is worked on the "cadge" principle, that is the cable is fastened to some object in front and then the machinery is set in motion and she propels herself forward, of course carrying with her the load hitched behind. The tug is also provided with paddle wheels and can run around the lake at a speed of six miles an hour.

Mr. John McLatchie, of New Edinburgh, returned to the city a few days ago from an extended surveying trip beyond Klock's depot at Ross lake. The party travelled 140 miles from the Mattawa and Mr. McLatchie's business was looking over timber limits, fifty miles above Ross lake. He found some fine pine, and birch on a good level country. A peculiarity noticed by the party was the almost entire absence of game, only one moose being seen. There are also very few Indians in this section. All the timber from this section comes down the Ottawa. The party on their return trip to Mattawa snowshoed 90 miles in six days, and the only great inconvenience suffered was frozen toes, not one man out of the party of fourteen escaping. The McLachlin Bros., who are to work the Ross limits, are now engaged building a large steamer on Ross lake, which they will be able to portage to the Ottawa river.

OTTAWA, Can., April 26, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

IT is with pleasure I have to write of the mills in this vicinity having begun sawing, etc., full blast and with lots of orders on hand and ahead. Every week shipments of lumber, lath

and shingles are made to the Northwest. The orders for salmon boxes are very large as a big run of fish are most confidently expected. Four new canneries are under construction on the Fraser river, and with the wharves in connection will require considerable lumber.

Although reports from Australia are more favorable shippers are still holding back until the financial question is more settled.

The British Columbia exhibit to Chicago is sure to attract considerable attention and it is to be hoped will be the means of introducing our woods more largely into eastern Canada and the eastern States. The mills have received several enquiries for clear cedar from the eastern states. When the new American trans-continental railways are completed and connected with New Westminster, it will be possible to fill these orders with more ease than at present.

SHIPPING INTELLIGENCE.

The following vessels are at Vancouver loading lumber for foreign points: Chillian ship Hindostan, 1,543 tons, Capt. Welsh, loading lumber for Valparaiso. American ship Ivy, 1,181 tons, Capt. Lovell, loading lumber for Wilmington, Del. British bark Natuna, 1,106 tons, Capt. Grahn, loading lumber for Port Pirie. American bark Harry Morse, 1,313 tons, Capt. Herriman, loading lumber for Shanghai. British bark Blairhoyle, 1,291 tons, Capt. Gray, loading lumber for Sydney. Chillian ship Atacama, 1,235 tons, Capt. Caballero, loading lumber for Valparaiso. Norwegian bark Sigurd, 1,530 tons, Capt. Aase, loading lumber for Port Pirie. British bark Wythop, 1,248 tons, Capt. Edwards, to load lumber for Sydney. Hawaii bark John Ena, 2,588 tons, at Cowichan, loading lumber for Port Pirie.

COAST CHIPS.

The Brunette Saw Mill Co. held their annual meeting this month and decided to increase their capital stock from \$200,000 to \$300,000.

Messrs. Hamill & White's mill at Sydney, Vancouver Island, is ready to begin sawing as soon as logs reach the mill. It is reported they have the contract to supply the Victoria & Sydney Railroad with the timber and ties they require, delivery to begin when wanted by the railroad, which will be shortly.

NEW WESTMINSTER, B.C. April 22, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

IN another week, probably, Michigan lumbermen will have got well into the season's trade and a brisk business is anticipated. Prices keep up; in some respects they are phenomenally high. The mills are calculating on a large cut, no little of which will be of Canadian logs. Preparations are now being made for an active season's towing from Canada, and operations will likely commence about May 1.

PURCHASE OF THE COOK BROS. LIMITS.

Rumor is revived here concerning the probable purchase of the Cook Bros. limits on the Georgian Bay by Gen. R. A. Alger, one of our largest white pine operators. One statement is that the deal is practically closed at a figure a little short of one million dollars. This is expected to cover over 500,000,000 feet, with mills, and about 20,000,000 feet of logs.

BITS OF LUMBER.

The Dollarville Lumber Company at Alpena is reported to have 17,000,000 feet of lumber on hand.

The Perry Lumber Company has banked 10,000,000 feet in Canada which is to be towed to Cheboygan to be manufactured.

Peter McArthur, the resident member here of the firm of McArthur Bros., of Saginaw and Toronto, reports a good demand for square timber and prices improving.

C. K. Eddy & Son have started their mill; the entire product of the mill, about 20,000,000 feet will be handled in the yard trade. Heretofore from 10,000,000 to 12,000,000 have been sold in cargo lots. The firm has not a foot of unsold lumber on the mill dock.

Two new lumbering organizations have identified themselves with the town of Mainstee, Mich., viz., the Mainstee Flooring Company, with a paid-up capital of \$10,000, and the Babcock Lumber Company, which will devote its attention principally to cedar shingles.

Pine is an exceptionally scarce article at Muskegon. Chiefly hemlock is being cut. An operator in hemlock at this point is reported to have said that steps will be taken to bring hemlock logs to Muskegon by water. "You see," said he, "there is any amount of it to the north and east of us, even as far over as the Canada shores. Under modern rafting arrangements logs can be handled for that distance with perfect safety. It will be found a profitable investment."

According to the boom company's estimate 515,000,000 feet of logs were cut on the Menominee river during the past winter. The cut up to the present time, however, will reach about 550,000,000 feet, which with the 40,000,000 feet left over from last season will make 590,000,000 feet to be manufactured during the season.

The following sales, reported to have been made by the Saginaw Lumber and Salt Company, within the past fortnight, indicate how prices are going. Three million feet were sold to be cut at an advance of 25 per cent. on prices for the same stock in December. Another lot of 1,250,000 feet was sold at \$17.50 a thousand. The same grade sold last season at \$14.50 to \$15. Two million feet has been sold at \$22 a thousand and the same grade sold at \$18 to \$19 three months ago. Probably 30,000,000 feet has been sold within two weeks at these prices. In the yard, trade prices have advanced \$3 and \$4 a thousand on nearly all grades. The same concern are said to have sold 1,000,000 feet of Norway lumber at \$2 increase over last year's figures and commence cutting at once.

The various lines of railroad running into the valley are considering a project which will doubtless be carried into effect, and will solve the problem of log rafts and avoid obstructing the channel of the Saginaw river. Last season the large rafts brought down the lake and from Georgian Bay territory obstructed navigation in many instances on the river and at the mouth of the stream. It is proposed now to extend to the track from Oatka beach a mile or so along the bay and boom all the rafts there, instead of bringing them into the river. Then it is proposed with an endless chain system to hoist the logs on freight cars from the water and deliver them by rail to all mills on the Saginaw river at a uniform freight rate. The project is entirely feasible and meets with much favor among mill owners.

SAGINAW, Mich., April 26, 1893.

FRICTION AND LUBRICATION.

WE often hear of the "co-efficient of friction," and no doubt many wonder what that means. It is easy to understand with a little explanation. Let us take a piece of iron and pull it along a plate of iron also. Let the block weigh 10 pounds, and we will hook an ordinary spring balance and pull it along, noting the amount of pull of the scales necessary to move it. Suppose this is 1 pound, or in other words, it takes 1 pound to pull 10 pounds on this iron plate, and we say the "co-efficient of friction" is 1-10 or 1. Now let us oil this plate and block and try it again, and we find it moves with a pull of 1/2 a pound, showing that we have reduced the "co-efficient of friction" to 1-20 or .05, just half of the former friction.

The friction of bearings vary with the conditions under which they run, the metals that run together, the lubrication of the bearings and the load or weight imposed upon them. For good sound shafting (turned practically true), in good, long bearings, properly lubricated and not too heavily loaded, the "co-efficient of friction" will average about .07, varying from .04 to 1. In other words it takes about 7 pounds pressure to move 100 pounds of shafting in good bearings, this will hold good for most shafts in good condition.

It will be seen that it pays to have a bearing lubricated and not allowed to run dry as the power required is often doubled or tripled by not having a shaft lubricated properly.

This does not mean that it should be spasmodically dosed with oil and then left to run until dry, for this means an uneven friction, is not economical of oil, nor is it at all mechanical. When possible have a steady regular feed, even though it be but a drop an hour, and you will be surprised to know how little oil will run a shaft and keep it cool. If you have no feeding device, then become as nearly automatic as you can yourself, by oiling "little and often." It may take a little time but it will lessen the oil required, will obviate hot journals and will be more satisfactory in every way.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

THE NEWS.

ONTARIO.

—Gilmour & Co.'s mills at Trenton are in operation for the season.

—The Parry Sound Lumber Company started their water mill on 17th April, and it is now running to its fullest capacity.

—The mills of the Whaley Lumber Co., at Huntsville, commenced running on the 17th ult.

—The new planing mill and sash and door factory of Tessier & Co., of Penetang, is in operation.

—The sawmills at Hawkesbury are reported to be in full operation, and an output that will aggregate between fifty and sixty million feet is expected.

—The drive of saw logs down the Moira river this spring will be very large—about 475,000 pieces, or 60,000,000 feet. Gilmour & Co. will have 265,000 and Rathbun & Co. 145,000.

—J. Kendrick, of Ice Lake, Gore Bay, has sold his mill to Mr. Andrew Robertson. Mr. Kendrick has taken a position with the Pickwick Island Shingle Company at Little Current.

—Gillies Bros., of Braeside, anticipate a heavy summer's lumbering. They will do away with the boarding house system and erect some twenty or more cottages for the operators.

—The new steam mill of McLachlan Bros., Arnprior, which will rank among the large mills of the province, is now complete. This firm will run their four mills to their fullest capacity.

—The following well-known lumbermen are incorporated, along with others, as the Hamilton, Waterdown and Guelph Electric Railway Company, with a capital of \$500,000: W. Laking, Jacob Flatt, W. Debors Flatt, and John Ira Flatt, all of Hamilton.

—An average of twenty car loads of lumber is now being shipped each day from the yards of the Canada Lumber Company, at Carleton Place. Most of it goes to the Standard Oil Co., of New York.

—Rumor has it that Mr. T. H. De Cew, the big lumberman of Essex, will erect at Green Basin, Oregon, in the near future, one of the largest saw mills in Oregon. He will also erect a stove factory at Albany.

—Cooper & Stewart are reported to have sold their timber limit and winter's cut of logs on the north shore of the Georgian Bay, to a Saginaw, Mich., firm. The consideration is stated to be \$60,000 with the square timber reserved.

—What is known as the Old Whistle Mill, on the Ottawa, now the property of the Pembroke Lumber Co., is now undergoing important improvements which will make it one of the best equipped dimension timber mills on the Ottawa.

—Messrs. John White, ex-M.P., of Roslin; Robt. Thomson, Hamilton; John Davidson, of Barrie; T. J. Hamill, J. S. Hatton, of Toronto; W. Bell, of Guelph, and others have been incorporated as the Toronto and British Columbia Lumber Company, with a capital stock of \$1,000,000.

—The Georgian Bay Sawlog Salvage Company, recently incorporated under charter from the Ontario government, have elected the following directors and officers: Charles Beck, Jas. Scott, John Waldie, Douglas L. White and James L. Burton. Mr. Chas. Beck, of Penetanguishene, was elected president and Mr. Alexander A. Wright, of Toronto, secretary. This company expects to be of great service to the owners of sawlogs on Lake Huron and the Georgian bay, to assist in economically recovering lost logs. Half of the stock is yet unallotted so as to give opportunity to sawlog owners to join, as it is the desire of the members of this company that it shall be a mutual working concern, and not one organized for the purpose of profit.

QUEBEC.

—The quantity of white pine timber which wintered at Quebec is placed at about 4,000,000 feet or 1,000,000 less than the preceding season. The quantity which wintered on the Ottawa is only about 500,000 feet, as compared with 2,000,000 in 1891.

NEW BRUNSWICK AND NOVA SCOTIA.

—F. F. Warren, of Grand Prairie, N.B., intends starting a saw and shingle mill in Salmon River district.

—Frazer & Maley, of Sheet Harbor, N.S. are erecting a mill at Ecum Secum, Eastern Shore. It will operate principally on hardwood.

—It is feared that many of the lumbermen throughout the lower New Brunswick will experience much difficulty this spring in drawing their logs owing to the amount of snow of the past winter. A heavy rain is necessary to save many logs from being hung up.

—A cargo of 1,400,000 shingles was shipped a few weeks ago from St. John, N.B., to Portland, Me. About 25c. a thousand is saved in freight by water.

—It is estimated that upward of 100,000 logs will soon be on the move to the booms on the Liverpool river. Large numbers of men are being dispatched to the streams at different points.

—The Washington Treasury Department has modified the existing regulations as to the entry of lumber sawed in St. John, N.B., from logs cut in Maine, so as to make them less stringent. The Treasury Department has directed that an overrun to 7 per cent. of the measured quantities of the logs sawed into lumber be admitted free of duty into the United States.

MANITOBA AND THE NORTHWEST.

—The liabilities of Bell Brothers, builders, Brandon, Man., who recently failed, are placed at \$50,000.

—It is said that 7,000,000 feet of lumber will be cut on Lake Winnipeg this summer. This is more than has been cut on the lake in one summer before.

—The timber cut of J. A. Christie, of Brandon, Man., on the Assiniboine and Saskatchewan limits, is said to be the finest that has come out of that section. The mills will have all they can do until next November.

—The Keewatin and Western Lumber Company, Winnipeg, Man., are asking authority to increase the capital stock from half a million to one million, and to extend the powers of the company for the following purposes: To purchase, acquire, hold, alienate and convey mills, properties, mill sites, water-powers and mills already constructed, and erect, to acquire, hold, charter, build and alienate ships, tugs or barges, requisite for the purposes of the company.

FIRES AND CASUALTIES.

FIRES.

—Carler's shingle mill at Fesserton, Ont., was destroyed by fire on the 18th ult. Loss, \$1,200; insurance, \$400.

—John Milne & Sons' planing mill, Huntsville, Ont., was burned on the 13th ult. Loss about \$12,000; insurance, \$8,000.

—The sawmill of McKechnie Bros. at Glenroadin, Ont., was completely destroyed by fire a fortnight ago. About 100,000 feet of lumber was burned. Loss, \$5,000; insurance, \$1,500.

—J. Joanist's steam planing mill, sash and door factory, and lumber sheds at Buckingham, Que., were burned to the ground two weeks ago. Loss about \$5,000; no insurance.

—The large mill of Burton Bros., Bying Inlet, Ont., was completely destroyed by fire on the 20th of April. This, it will be remembered, was the date of the great wind and rain storm that did so much damage all over the province. This served as an immense feeder to the fire, which hardly stopped until almost the whole village was consumed. Burton Bros. loss is estimated at about \$200,000. The mill was one of the best equipped in the province, capable of cutting a large quantity of timber. The cost was given to the LUMBERMAN by a representative of the firm as \$106,000. Besides this about \$60,000 worth of lumber was burned, a considerable portion of which was sold and was to have been shipped by vessel to the States within a few days following the fire. Some twenty cottages owned by Burton Bros. and occupied by workmen, and a large general store managed by Peter Potvin, were also destroyed. The insurance is placed at about \$120,000. It is not known whether the firm will rebuild. To relieve a large number of families who are without food or shelter, provisions have been forwarded from Collingwood to assist the sufferers.

CASUALTIES.

—Samuel Johnson, living near Oxford Mills, Ont., has been killed by a falling tree.

—Alfred Sherwood was killed in the bush near Woodstock, Ont., while felling a tree.

—Ricard Ellis, of Ivy, Ont., while working in a lumber camp near North Bay, Ont., was killed by a falling tree.

—Arthur Askey, aged 13, got caught in a belt at Harrison's sawmill in Norwood, Ont., and was whirled around the shaft and badly mangled.

—St. Victor d'Alfred, a workman in Grondin's mill, near Buckingham, Que., was instantly killed by being struck with a smokestack which he was helping to erect.

—H. Morgan, an employee of the Canoe Company, Peterborough, Ont., had his right hand lacerated by a circular saw necessitating the amputation of one of his fingers.

—Robert Essop, of Cremore, Ont., was drowned on the Shawanga river, Parry Sound district, while climbing a log. Though in sight of a number of comrades they were unable to render assistance in time.

—Patrick O'Connor was killed in the bush near Braemar, Oxford Co., Ont., on the 20th ult., a large tree being torn up by the roots and crashed down on the shanty killing the occupant. The deceased was employed as a wood chopper.

PERSONAL.

Mr. John Sharples, the well-known lumber merchant of Quebec city, has been created Legislative Councillor in place of the late Hon. John Roche, deceased.

Mr. W. Aschenbach, M.E., representative of Ernest Kirchner & Co., manufacturers of sawmill machinery, Leipsic, Germany, will be present throughout the World's Fair, at Chicago, in charge of the large exhibit being made by this firm.

The death is chronicled of Mr. John Law, of Ottawa, which took place suddenly a fortnight ago. Deceased was a native of Glasgow, Scotland. He came to Ottawa about thirty-five years ago and was engaged in the lumber business for some years, afterwards becoming proprietor of the Caledonia foundry in New Edinburgh.

Mr. Finlay McGibbon, lumberman, of Sarnia, Ont., whose death occurred a fortnight since, was a well-known lumberman of the Georgian bay. He was born in the township of Nassagawaga, county of Halton, fifty-nine years ago, and when a young man engaged in lumbering in that section of country. Later when the Georgian bay district began to develop he sold his business in Halton and purchased a tract of several thousand acres of timbered land in the townships of Tiny and Tay, Simcoe Co., and developed a large lumber manufacturing business in Penetang. About twenty years ago he perceived the advantages of Sarnia as a distributing point for the products of his Georgian Bay mills, and became a resident of the town, where he has ever since resided. About four years ago Mr. McGibbon associated with him in business his sons Charles, John, Finlay and David, and the firm has since been known as F. McGibbon & Sons.

TRADE NOTES.

Attention is directed to the "Want" advertisement of Wm. McNally & Co., Montreal, which appears in this issue.

The Sandwich, Windsor & Amherstburg electric railway have placed an order with the Waterous Engine Works Co., of Brantford, Ont., for grip pulleys, shafting etc., as follows: 43 ft., of 5½ in. shafting with 9 self oiling ball and socket boxes and floor stands. One plain pulley, 45 x 24, two 300 H.P grip couplings, one 350 H.P. grip coupling, and the following pulleys: One 86 x 12; one 84 x 12; one 72 x 10½; one 56 x 17; one 54 x 16; one 54 x 22.

Messrs. Wm. Gray & Son, the well-known carriage builders, of Chatham, Ont., have just had made for them by the Cant Bros. Co., of Galt, a new machine which will prove specially useful for sanding and polishing the joined bodies of buggies, carriages and light wagons, and for any other work of irregular curved form. In the centre of a strong iron table, a horizontal disc, 36 inches in diameter, lightly bevelled off towards the rim and covered by a cushioned face of sandpaper, revolves at a speed of 600 revolutions per minute. The disc can be raised and lowered at will, and a fence in the middle enables two operators to work on the machine at the same time from opposite sides. The sandpaper is held in the centre of the disc and on the outside by an iron band, and is easily renewed when worn out. The machine results in a saving of both sandpaper and labor.

PUBLICATIONS.

The Review of Reviews, American edition, leading articles of which we have had occasion to notice at times in these columns, enters on another volume with plans laid for still greater achievements in the future. Dr. Albert Shaw, the editor, has shown himself a fitting counterpart to his English chief, and founder of the journal, Mr. W. T. Stead; and in not a few striking respects, we are of the opinion that Dr. Shaw has more exactly met the needs of readers, at least those on this continent.

Rand, McNally & Co., the well-known gazetteer and directory publishers, have just issued a new edition of their "Lumberman's Directory, Shipping Guide and Reference Book." The work is a large volume of over 600 pages, containing what purports to be a complete directory of all lumber dealers, millmen, sash and door manufacturers and wood workers in every department of the trade, doing business in the United States and the several provinces in the Dominion. Besides this list, which is exceptionally valuable to the trade generally, the book contains rules for inspection, classification and measurement of lumber in the various states of the Union, and the rules in use in Toronto. And along with these is a digest of the statutes affecting lumbermen and lumbering in different parts of the States. The book bears the marks of careful editing and compilation, whilst typographically and in binding it reflects every credit on the publishers.

TRADE REVIEW.

Office of CANADA LUMBERMAN, } April 29, 1893. }

THE GENERAL SURVEY.

ALL is activity in lumber circles, at least in Ontario, and lumbermen generally agree that trade for the season will prove active and profitable.

Shipments of lumber to the States will be heavy; a considerable export to the United Kingdom will take place, and at least a fair trade with South America is assured.

Trade in the province will be rather better likely than last year, though it will be carried on with caution.

Correspondence from British Columbia holds out the hope of a fairly good trade this summer, except perhaps in shingles.

Lumbermen in Quebec and the Maritime Provinces anticipate an improved trade over the past few years, though no little depends on the situation abroad, which improves only slowly.

UNITED STATES.

Financial circles are disturbed with the silver difficulty and the season opens with money stringent. Those who are pessimistic in their opinions contend that things will be worse before they are better.

FOREIGN.

An improved tone is to be remarked of the British timber market. Denny, Mott & Dickson, of London, Eng., say: "The enquiry for consumption during March showed generally some slight improvement on that of January and February, and this fact, in conjunction with the exceptional spell of bright weather, has caused a perceptibly better tone in the trade, although we still seem far off any great revival in the manufacturing industries, on which the prosperity of the timber trade depends."

HARDWOODS.

So far as hardwoods are required for finishing purposes in building the end of the season rather than the

commencement is more favorable to consumption. And yet hardwoods are used in so many different ways that the demand keeps steady; in fact, the trade in hardwoods is good. Elm is becoming a scarce article, not alone because of the consumption of this wood by the coopers, but from the fact that it is now being used for many other purposes not before thought of.

TORONTO, ONT.

TORONTO, April 29, 1893.

Table with columns for CAR OR CARGO LOTS, listing various lumber types and prices. Includes items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table with columns for YARD QUOTATIONS, listing items like Mill cull boards and scantling, Shipping cull boards, Scantling and joist, etc.

HARDWOODS—PER M. FEET CAR LOTS.

Table with columns for HARDWOODS, listing items like Ash, white, black, Birch, red, yellow, Basswood, Butternut, Chestnut, Cherry, Elm, soft, rock, Hickory, Maple, Oak, red, p'n, white, Walnut, Whitewood, etc.

OTTAWA, ONT.

OTTAWA, April 29, 1893.

Table with columns for Ottawa lumber prices, listing items like Pine, good sidings, Pine, good strips, Pine, good shorts, etc.

QUEBEC, QUE.

QUEBEC, April 29, 1893.

WHITE PINE—IN THE RAFT.

Table with columns for White Pine prices, listing items like For inferior and ordinary according to average, quality etc., For fair average quality, etc., For good and good fair average, etc.

RED PINE—IN THE RAFT.

Table with columns for Red Pine prices, listing items like Measured off, according to average and quality, In shipping order, 35 to 45 feet, etc.

OAK—MICHIGAN AND OHIO.

Table with columns for Oak prices, listing items like By the dram, according to average and quality, 45 to 50 feet, etc.

ELM.

Table with columns for Elm prices, listing items like By the dram, according to average and quality, 45 to 50 feet, etc.

ASH.

Table with columns for Ash prices, listing items like 14 inches and up, according to average and quality, etc.

BIRCH.

Table with columns for Birch prices, listing items like 16 inch average, according to average and quality, etc.

TAMARAC.

Table with columns for Tamarac prices, listing items like Square, according to size and quality, Flatted, etc.

STAVES.

Table with columns for Staves prices, listing items like Merchantable Pipe, according to qual. and sp'c'ct'n—nominal, W. O. Puncture, Merchantable, according to quality, etc.

DEALS.

Bright, according to mill specification, \$115 to \$123 for 1st, \$78 to \$82 for 2nd, and \$37 to \$42 for 3rd quality. Bright spruce, according to mill specification, \$40 to \$43 for 1st, \$27 to \$28 for 2nd, \$23 to \$25 for 3rd, and \$19 to \$21 for 4th quality.

BOSTON, MASS.

BOSTON, Mass., April 29.—The heart of the lumberman is cheered by the favorable opening of spring trade. Spruce is somewhat scarce. A good quantity of southern pine is coming on the market. Prices are firm.

EASTERN PINE—CARGO OR CAR LOAD.

Table with columns for Eastern Pine prices, listing items like Ordinary planed boards, Coarse No. 5, Refuse, Outs., Boxboards, etc.

WESTERN PINE—BY CAR LOAD.

Table with columns for Western Pine prices, listing items like Uppers, 1 in., 1 1/4, 1 1/2 and 2 in., Selects, etc.

SPRUCE—BY CARGO.

Table with columns for Spruce prices, listing items like Scantling and plank, random cargoes, Yard orders, etc.

LATH.

Table with columns for Lath prices, listing items like Spruce by cargo, etc.

SHINGLES.

Table with columns for Shingles prices, listing items like Eastern sawed cedar, extra, clear, 2nd s., extra No. 1, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., April 29.—Navigation is open and the outlook is hopeful for a good season's trade in lumber.

WHITE PINE.

Table with columns for White Pine prices, listing items like Three uppers, 1 1/4, 1 1/2 and 2 inch, Pickings, No. 1, cutting up, etc.

SIDING.

Table with columns for Siding prices, listing items like 1 in siding, cutting up, picks and uppers, 1 in dressing, etc.

IX12 INCH.

Table with columns for IX12 Inch prices, listing items like 12 and 16 feet, mill run, 12 and 16 feet, No. 1 and 2, barn boards, etc.

IX10 INCH.

Table with columns for IX10 Inch prices, listing items like 12 and 13 feet, mill run, mill culls out, 12 and 13 feet, dressing and better, etc.

IX5 INCHES.

Table with columns for IX5 Inches prices, listing items like 6, 7 or 8, mill run, mill culls out, 6, 7 or 8, drsg and better, etc.

SHINGLES.

Table with columns for Shingles prices, listing items like XXX, 18 in. pine, Clear butts, pine, 18 in., XXX, 16 in. pine, Stock cedars, etc.

LATH.

Table with columns for Lath prices, listing items like No. 1, 1 1/4, No. 1, 1 in., No. 2, 1 1/4, etc.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., April 29.—There is every indication of serious trouble in Buffalo and Tonawanda between the lumber dealers and the lumber shovers. This is unfortunate, coming on the threshold of spring trade. Aside from this circumstance the situation is encouraging. Lumber is in brisk demand, and none too plentiful.

WHITE PINE.

Table with columns for White Pine prices, listing items like Up'rs, 1, 1 1/4, 1 1/2 and 2 in., Shelving, No. 1, 13 in. and up, 1 in., Dressing, 1 1/2 in., etc.

1x10 and 12 in. (No 3 out)	14 00	BOX. Narrow	13 00@14 00
1x6 and 8 in. (No. 3 out)	13 50	1 1/2 in.	15 00 18 00
1x13 and wider.....	16 00	1 1/2 in.	15 00 18 00
		2 in.	15 00 18 00
18 in. XXX, clear... 3 75	4 00	SHINGLES. 16 in., *A extra.....	2 50 2 60
18 in. XX, 6 in. clear.	2 75	16 in. clear butts.....	2 10
		LATH. No. 1, 3 ft.	1 10
No. 1, 4 ft.	2 60	No. 2, 4 ft.	1 95
No. 2, 4 ft.	1 95		

ALBANY, N.Y.

ALBANY, N.Y., April 29.—Though the season's trade is no more than opened, distribution has progressed with sufficient rapidity to materially reduce stocks on hand. Low grades of pine have been the first to become practically extinct. Contracts for the new cut are being made at from \$2 to \$3 a thousand feet ahead of last year.

2 1/2 in. and up, good.....	\$58	560	10-in. common.....	\$15	\$16		
Fourths	58		12-in. dressing and better..	28	34		
Selects	50		Common	15	17		
Pickings	45		1 1/2 in. siding, selected, 13 ft.	40	45		
1 1/2 to 2-in. good.....	52	55	Common	15	17		
Fourths	47	50	1-in. siding, selected.....	38	42		
Selects	42	45	Common	15	17		
Pickings	37	40	Norway, clear.....	22	25		
1-in. good.....	52	55	Dressing	16	18		
Fourths	47	50	Common	11	15		
Selects	42	45	10-in. plank, 13 ft., dressing				
Pickings	37	40	and better, each.....	42	55		
Cutting-up.....	22	27	10-in. plank, 13-ft. culls, each	23	25		
Bracket plank	30	35	10-in. boards, 13 ft., dressing				
Shelving boards, 12-in. up ..	30	32	and better, each.....	28	32		
Dressing boards, narrow....	20	22	10-in. boards, 13-ft. culls....	17	21		
			LATH. Spruce	\$2	\$2 50		
Pine	\$2	40	SHINGLES. Bound butts, 6 x 18	\$5	90		
			Clear butts	3	10		
Sawn Pine, ex. XXXX. \$4	35	\$4	50	Hemlock.....	2	15	
Clear butts	3	10	3	25	2	30	
Smooth, 6 x 18.....	5	40	5	60	Spruce.....	2	20

SAGINAW, MICH.

SAGINAW, Mich., April 29.—The impression is gaining some headway in the Michigan market that prices have touched high water mark and we hear of purchasers of last fall who would be willing to unload at present figures rather than hold on for a prospective increase. At the same time no one sees any evidence of a reaction in present quotations which continue firm.

Uppers, 1, 1 1/2 and 1 3/4.....	45	00	Fine common, 1 in.....	35	00
2 in.....	46	00	1 1/2 and 1 3/4 in.....	36	00
Selects, 1 in.....	40	00	2 in.....	36	00
1 1/2 and 1 3/4.....	41	00	C, 7, 8 and 9 in.....	30	00
2 in.....	41	00			
			SHINGLES. 18 in. X (cull).....	1	00
Clear, 1/2 in.....	24	00	XXX Saginaw.....	3	40
3/4 in.....	24	00	XX Climax.....	2	25
Select, 1/2 in.....	21	00	18 in. 4 in. c. b.....	1	25
3/8 in.....	20	00	LATH. Lath, No 1, white pine.....	2	25
			Lath, No. 2, W. pine, Norway	1	65
2x4 to 10x10, 12, 14 and 16 ft.	11	00			
18 ft.....	13	00			
For each additional 2 ft. add \$1;					
12 in. plank and timber \$1 extra;					
extra for sizes above 12 in.					

NEW YORK CITY.

NEW YORK, April 29.—The trade are commencing to feel the benefit of building operations and a fair volume of trade is being done.

Uppers, 1 in.....	\$44	00@45 00	Coffin boards.....	20	00	22 00
1 1/2, 1 3/4 and 2 in.....	46	00	47 00	Box, in.....	\$17	00@17 50
3 and 4 in.....	55	00	58 00	Thicker	17	50 18 50
Selects, 1 in.....	40	00	41 00	Ceil'g, base, fig. No. 1	40	00 42 00
1 in., all wide.....	41	00	43 00	No. 2.....	35	00 37 00
1 1/2, 1 3/4 and 2 in.....	43	00	44 00	No. 3.....	24	00 26 00
3 and 4 in.....	52	00	53 00	Shelving, No. 1.....	30	00 32 00
Fine common, 1 in.....	36	00	37 00	No. 2.....	25	00 27 00
1 1/2, 1 3/4 and 2 in.....	38	00	40 00	Molding, No. 1.....	36	00 37 00
3 and 4 in.....	45	00	48 00	No. 2.....	34	00 36 00
Cutting up, 1 in. No. 1	28	00	30 00	Bevel sid'g, clear.....	22	50 23 00
No. 2.....	21	00	23 00	No. 1.....	22	00 22 50
Thick, No. 1.....	29	00	32 00	No. 2.....	20	00 20 50
No. 2.....	24	00	26 00	No. 3.....	16	00 17 00
Common, No. 1, 10	22	00	23 00	Norway, c'l, and No. 1	23	00 25 00
and 12 in.....	22	00	23 00	No. 2.....	20	00 22 00
No. 2.....	20	00	21 00	Common.....	18	00 19 00
No. 3.....	17	00	18 00			

COMING SALES.

An important sale of timber and mineral lands in North Carolina is advertised to take place on June 14. Particulars are given in our advertising pages.

Announcement is made in advertising columns of a valuable saw and shingle mill at Proton Station, on the C.P.R. that is offered for sale. The mill has a capacity of from 10,000 to 15,000 feet per day.

NEWS AND NOTES.

The safe of the Canada Lumber Company, at McLaren's depot in Lanark Co. was blown open and \$800 in cash stolen.

Charles Wilson, a millwright in Gilmour & Co's. employ, Trenton, Ont., had four fingers taken off while fixing some shafting.

NOTES AND QUERIES

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column. Correspondents need not give their own name for publication, but it must be made known to the editor. Anonymous communications will find space in the waste basket.

No. 34. BOILER EXPLOSIONS.—Let me say, suggested by a correspondent in the April LUMBERMAN that the amount of water in a boiler at the time it "let go" has a good deal to do with the possibility of an explosion. When a considerable quantity of water is heated under pressure, as in a boiler, and suddenly released from pressure, as in case of an explosion, or rupture of the containing vessel, then the body of water is instantly flashed into steam and the sudden increase in volume which takes place when that happens makes matters much worse than when there is but little water contained in the boiler, and the destruction is only that which is caused by the escape of the pent-up body of steam therein contained. In the latter case, the mischief is all done at once and is over with; in the former case, the destructive energy is reinforced by a power two or three or perhaps many more times greater than that which caused the initial trouble. L. A. R.

No. 35. THE TERM HORSE POWER.—A writer in Power thinks that an imperfect understanding of the term horse power exists in more minds than that of the engineer who tried to get at his "horse power per hour" by multiplying the actual horse power by sixty. The horse power is foot pounds per minute, just the same as revolutions per minute, and it is just as meaningless to say "horse power per hour" as it would be to say "revolutions per minute per hour." The horse power is the unit of the rate of power consumption, and whether the number of foot pounds be divided by 550 per second, 33,000 per minute or 1,980,000 per hour, the rate of their production, or consumption and consequently the horse power, will be the same. When it is said, for instance, that an engine requires thirty pounds of steam per horse power per hour, it is meant that thirty pounds of steam are required per hour, or one-half pound per minute for each horse power developed.

LUMBERING IN HOLLAND.

MORE in some respects than the close student of books does the much-travelled man become an educated man. All men are not equally observant but usually what the eye sees is remembered better than the information that is acquired by reading. At any rate there is nothing like seeing a thing if one wants to be impressive in a description of it. "The sawmills in Holland," says Mr. Tolman, in the Northwestern Lumberman "are run by windmills. Talk of ease! Why, even a Georgia darkey in watermelon time would pine for work, if he had nothing more to do that attend to a wind sawmill; and a Mexican broncho is angelic in comparison with one of them for cussedness. It is worse than a six days-free-for-all-go-as-you-please walking match. Think of putting a log on a carriage to be sawed and waiting a week for it to be done! And yet that is the common experience in Holland. The foreman helps his employer put on a log Monday morning, and along about Wednesday or Thursday they look in to see if the mill has started. Then they go out and shut the door, and call again next Monday. Fortunately the machinery is made so that, if the mill does start up in the night and do a little work, or even saw the log up, no damage will be done if the workmen are absent. But the method is a trifle too leisurely for any place except Holland."

TOO BUSY TO READ.

"TOO busy to read!" Well I'm sorry for you; You're busier far than occasion demands. I'm afraid you just bring that objection to view, To rescue yourself from the canvasser's hands.

If you are too busy to look at the page That tells of the methods that others pursue, That shows you are lagging in this busy age— You don't drive your business—it seems to drive you. The plans and ideas, the systems and schemes That other men find it pays them to employ, Are just what will help you to live out your dreams Of plenty, prosperity, honor and joy.

If you would but take time to read and reflect, Your business would yield you the time that you need. For those who have tried it have found this effect— By reading they've learned to have more time to read. —Business.

STEAM PUMPS



Duplex AND SINGLE Steam AND POWER Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US



NORTHHEY

M'FG CO.

LIMITED

TORONTO - ONT.

A NEW STEAM TUG.

CONSIDERABLE interest is manifested by lumbermen in the construction of a new and somewhat novel steam tug that has been patented by a Simcoe firm and six of which have already been manufactured by them at their foundry in that town. The tug is aptly called the alligator, as it is intended to be used on land as well as in water. McLachlin Bros., of Arnprior, who have three of these tugs in operation speak in highest terms of their usefulness. This peculiar vessel is scow-shape with steel-shod runners for moving overland, is 37 feet long, 10 feet beam, decked all over, has sleeping room for men in the bow; the bottom and up the bow covered with steel boiler-plate, engine 23 horse power, furnishes steam for 10 hours' work with three-quarters of a cord of dry wood. In the water it moves six miles an hour, forward or backward as required, propelled by side-wheels. On land it is propelled by having a cable drum on which is coiled five-eighths of a mile of steel wire cable, which is fastened with pulleys to a tree or some object in front, the boat moving as the wire is coiled up. The boiler is hung on an axle in the centre, and a screw arranged on the front enables the fireman to tip it forward or back and keep it level going down hill. It will move over an elevation of one foot in three on land and draws about 28 inches in water.

LUMBERING IN SCOTLAND.

SCOTLAND as a whole, says J. E. Emerson in the Northwestern Lumberman, is the best timber land of Great Britain and has, I think, more mills for sawing and working timber and lumber. This probably is largely due to her numerous shipbuilding interests, and remarkable enterprise and rigid economy.

Scotland has the best monetary and banking system of any part of the world. Ship building was at one time carried on the Thames in London, and its immediate vicinity, but as many ship builders were comparatively poor and there was a panic in England, and interest jumped as it often has from 2 to 10 per cent. in one day, and the Bank of England suspended specie payment, as it did during the wars of Napoleon Bonaparte, and the Crimean war, it was dangerous to be in debt and have notes falling due. Sir Walter Scott wrote under the assumed name of "Mullecar Mullagrunder" (if I have spelled it correctly) and opposed Scotland's establishing the monetary system of England. For more than one hundred years interest in Scotland has not been more than 2 per cent.

It cost over \$15,000,000 to dredge the Clyde so ships could be launched. I was exceedingly interested in learning the method of doing business in shipbuilding, so I had a bank president explain it. Said he: "We want to know that a shipbuilder is a practical workman and manager. Such a man gets from the Cunard Line or East India, or a reliable nation, ship building to the amount of say \$5,000,000 and comes to us for a loan of \$100,000 until his first payment, which is when the outside or frame is ready for the machinery, and so on at each stage, as the work progresses, until launched, when all is then due. We get the contract at say 1½ per cent. interest; if awarded to us he brings us his contract as our security and sends all of his hills, even his labor bill, for us to pay, and we pay them up to the sum loaned. He comes and says that he is ready for an inspector and we order one that is furnished by our government. Soon he brings in his receipt that it is done satisfactorily and we then send the receipt to the parties he is building for and draw on them for the first payment. It comes and we place it to his credit, and then go on again, settling every six months, charging him interest for the exact time he has had the money and allowing him half interest for what lies in our bank not used

by him. It costs us ¾ per cent. to handle money, including all expenses, so that whatever we receive over that is profit."

In all of their doings I found the Scotch a farseeing people and in no way what we may call sharpers. They lay their plans often generations ahead, and what we call "clannish" Scotchmen look after the interests of Scotchmen wherever found.

WOOD PULP SILK.

THE uses to which wood may be put, as anyone who has studied the subject closely knows, are quite wonderful. The "forest primeval" is turned to many different purposes. Alcohol, gas, resin, tar, sassafras oil, quinine, rubber and cork, are only a few of the many products that come from wood as the result of distillation and the application of other scientific methods. But it has been left to a Frenchman to make a silk dress out of a piece of wood. The process seems to be a practicable one, for the inventor has organized a company and is now making the "wood silk." The process of manufacture is given as follows: The raw material is made from wood pulp, such as is used for the fabrication of certain kinds of paper. This pulp is carefully dried in an oven and plunged into a mixture of sulphuric and nitric acids, then washed in several water baths and dried by alcohol. The product thus prepared is dissolved in ether and pure alcohol, and the result is collodion, similar to that used in photography. This collodion, which is sticky and viscous, is enclosed in a solid receptacle furnished with a filter in the lower end. An air pump sends compressed air into the receptacle, and by its pressure the collodion is passed through the filter, which removes all impurities, and flows into a tube placed horizontally. This tube is armed with 300 cocks, of which the spouts are made of glass, and pierced by a small hole of the diameter of the thread of a cocoon as it is spun by the silk worm. The spinner opens the cock and the collodion issues in a thread of extreme delicacy (it takes six to make a thread of the necessary consistency for weaving). This thread is not, however, fit to be rolled on the spools by reason of viscosity and softness; the matter is as yet collodion and not silk. To produce the necessary hardness, the inventor resorted to a very ingenious but simple method. The little glass tube already mentioned is surrounded by a small reservoir of the same material constantly filled with water; when the thread issues from the aperture in the manner described, it traverses this water, which takes up the ether and alcohol, and then the collodion becomes solidified, that is to say, it is transformed into an elastic thread, as resisting and brilliant as ordinary silk.

OIL CANS.

NO engineer should use oil cans with bent and broken nozzles, and without covers and stoppers, for it gives a forlorn appearance to the whole room. As a rule, steam users will furnish these to some reasonable extent, but the writer has made a practice for more than a dozen years of furnishing his own, wherever he is employed, and the cost has not been excessive, for we have succeeded in keeping an ordinary brass squirt can for two years without accident, although using it every day in oiling valve gears in motion. Sometimes steam users are accused of being niggardly in dealing out supplies, but it may be that there is a reason for this, so that it is well not to be hasty in forming an opinion until you are familiar with all of the facts in the case. If an engineer has been in the habit of using belt lacing, for various purposes of his own, he should not be surprised if the supply is reduced. If he has not been careful of his waste, he should not object if he is put "on allowance." If he has wasted oil he must expect to be corrected for it.—Scientific Machinist.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

WANTED—A SITUATION AS FILER IN A sawmill. Have had nine years' experience with gang and round saws. Address "H," 3 Maitland St., Halifax, N.S.

WANTED—BY YOUNG MAN—SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care CANADA LUMBERMAN, Toronto.

WANTED.

IN CAR LOTS, IN MONTREAL, ELM LOGS not under 25 inches in diameter, also Spruce. Apply to WM. McNALLY & CO., McGill St., Montreal.

WANTED.

LUMBER, LATH, SHINGLES, CEDAR posts, slabs, edgings, and hard and soft cord-wood in exchange for wood-working machinery. Address: "Machinery," Care CANADA LUMBERMAN.

FOR SALE.

ABOUT A MILLION FEET OF LOGS (AT mill) suitable for bill stuff, etc. Mill can be leased to cut them. Address "Lumberman," care CANADA LUMBERMAN, Toronto.

LUMBERMEN

EXPERIENCED SHIPPER OPEN FOR ENGAGEMENT middle of May. Good bookkeeper and correspondent. Competent to take charge of mill. References furnished. Address "Inspector," care CANADA LUMBERMAN, Toronto.

RAILS FOR TRAMWAYS

NEW AND SECOND-HAND STEEL AND iron rails for tramways and logging lines, from 12 lbs. per yard and upwards; estimates given for complete outfit.

JOHN J. GARTSHORE, 49 Front St. West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with I.C.L., care CANADA LUMBERMAN, Toronto.

FOR SALE

A WELL-ESTABLISHED, THRIVING LUMBER business, being one of but two yards in a rapidly growing manufacturing city of 20,000 inhabitants, surrounded by a well-to-do farming class. Sales the past year over \$70,000, which can be doubled. Capital required about \$15,000. Terms easy. Reason for selling, illness of Manager. Address "Good Opportunity," Care CANADA LUMBERMAN, Toronto.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to P.O. Box 2144, NEW YORK.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, 1 and 1½, all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long. Address all particulars as to dryness, quality, quantity on hand and price, to P.O. Box 2144, New York, N.Y.

SAW MILL AND TIMBER LIMITS For Sale.

THE UNDERSIGNED OFFERS FOR SALE this Mill Property, situated in the town of Peterboro, known as the Point St. Charles saw mill, together with piling grounds, pond, booms, chains, anchors, ropes, horses, harness, wagons, sleighs, shanty and driving outfits. Also, the Galway limits and about 15,000 pieces of logs on Nogey's Creek and Swamp Lake, composed of pine, cedar and hemlock. For all information apply to

A. McDONALD, Point St. Charles, Peterboro, Ont.

SAW AND SHINGLE MILL FOR SALE

At Proton Station on the G.P.R. Containing 3½ Acres of Land

Mill Capacity from 10,000 to 15,000 feet per day

THE PROPERTY IS SITUATED IN ONE of the best hardwood districts in the country. Two small houses, stable, etc., on the property. Mill is running, and can be seen at any time. Terms easy. For full particulars apply 235 QUEEN STREET EAST, Toronto.

IMPORTANT SALE

— OF A — LARGE AND VALUABLE

TRACT OF TIMBER AND MINERAL LAND

THE TIMBER AND MINERAL PROPERTY of the Scottish Carolina Timber & Land Company, Limited, in liquidation, situate in Haywood and Madison counties, western North Carolina, will be offered for sale at public auction at the Court-House door, at Knoxville, Tennessee, on

Wednesday, June 14th, 1893

This splendid tract of land is estimated to contain about forty thousand acres, a large part of which is heavily timbered with poplar, white-pine, cherry, walnut, hickory, maple, birch, bass-wood, hemlock and other woods. After the timber is removed from the lands, the property will still be valuable for agricultural and grazing purposes, and for the rich deposits of iron-ore and other minerals upon it.

This property having come into the hands of mortgagees, must be sold, and offers a rare chance to investors or practical lumbermen. For further description or particulars, apply to

LEON JOURLON, Attorney, Knoxville, Tennessee.

VALUABLE

Timber Lands Saw Mills FOR SALE

AT PARRY SOUND

THE MILL IS SITUATED ON THE WATERS of Parry Sound, and has good shipping facilities. The largest vessels or steamers on the lakes can load at the lumber docks. The mill will cut about twenty thousand feet of lumber and twenty-five thousand shingles in ten hours.

There are about seven thousand five hundred acres of timber pine, hemlock, birch, ash, oak, spruce, bass-wood, etc.

The timber is free of dues.

Parry Sound is the terminus of the Ottawa, Arnprior and Parry Sound Railway, now in process of construction.

Price: Twenty-five thousand dollars.

Terms as may be agreed upon.

WM. BEATTY,

Parry Sound.



MINERAL WOOL

STEAM PIPE AND BOILER COVERING

Saves enough fuel to pay for itself in one season.

Is Fire-proof, Frost-proof, Vermin-proof and Indestructible

CANADIAN MINERAL WOOL CO., LTD., # 122 BAY ST., TORONTO

THE RATHBUN COMPANY

DESERONTO, ONT.

MANUFACTURERS OF

TERRA COTTA FIRE-PROOFING

For use in Old and New Buildings

Endorsed by leading Architects
Absolutely Fire-proof Deadens Noise
Does not Crack on application of Heat or Water
About as Cheap as Wood or Brick
Weight one-third that of Brick

Gives Warmth in Winter; Coolness in Summer

Cable Address
Hamburg: "Gardner."

Cable Address
London: "Preestuff."

GARL GARTNER

AGENT FOR

CANADIAN WOOD GOODS

HAMBURG, GERMANY:
Office
Kl. Reichsstr., 17-19



LONDON, ENGLAND:
8 Union Court, Old Broad St., E.C.
and 80 Bishopgate St., E.C.

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail.	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	Steam, Circular, 16m
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Stm., Band, Cir., S. 75m, Sh. 60m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar	Water, Band and Circular, 100m
Blind River, Ont.	Blind River	Blind River Lumber Co.	Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 25m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Cir., Gang and Band, 140m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Wholesale and Retail.	Water, Gang and Band, 450m
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Shingles, Wholesale	Water, Gang and Band, 450m
Waubushene, Ont.	Waubushene	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Lumber, Wholesale and Retail.	Waubushene mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail.	Water, Gang and Band, 450m
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Water, Band and Circular, 100m
Comber, Ont.	Comber	Ainslie, J. S. & A.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	Water, Band and Circular, 100m
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Water, Band and Circular, 100m
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail.	Water, Band and Circular, 100m
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
London, Ont.	London	Howry, J. W. & Sons	Lumber, Wholesale and Retail.	Water, Band and Circular, 100m
Longford Mills, Ont.	Longford	Gordon, James	Exp. and dir. in Am. Hwds. made to specification	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Water, Band and Circular, 100m
Norman, Ont.	Norman	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	Water, Band and Circular, 100m
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Water, Band and Circular, 100m
Louise, Ont.	Elmwood, G.T.R.	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail.	Water, Band and Circular, 100m
Toronto, Ont.	Toronto	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Water, Band and Circular, 100m
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	Water, Band and Circular, 100m
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	Water, Band and Circular, 100m
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Water, Band and Circular, 100m
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Water, Band and Circular, 100m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Water, Band and Circular, 100m
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Water, Band and Circular, 100m
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Water, Band and Circular, 100m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Water, Band and Circular, 100m
Toronto	Toronto	DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail.	Water, Band and Circular, 100m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill.	Water, Band and Circular, 100m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Water, Band and Circular, 100m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Water, Band and Circular, 100m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	Water, Band and Circular, 100m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Water, Band and Circular, 100m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Water, Band and Circular, 100m
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Water, Band and Circular, 100m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Band and Circular, 100m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

CORRESPONDENCE SOLICITED

OAK TANNED BELTING

TORONTO 20 FRONT ST EAST TELEPHONE 475

THE J.C.McLAREN BELTING CO

MONTREAL

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-HAND BOILERS, ENGINES AND GENERAL MACHINERY FOR SALE BY THE CANADA MACHINERY AND SUPPLY CO., BRANTFORD, ONT., DEALERS IN NEW AND SECOND-HAND MACHINERY AND SUPPLIES:-

- ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.
ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.
THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.
ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.
TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.
ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S MAKE.
TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.
ONE 6 1/2 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.
TWO 3 1/2 x 9 SLIDE-VALVE ENGINES, BECKETT'S MAKE.
ONE 6 H.P. ENGINE, UPRIGHT, WITH 8 H.P. boiler combined on one cast iron base.
ONE 15 H.P. ENGINE, English make.
ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.
ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:-

- ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.
TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.
ONE GOLDIE & McCULLOCH THREE-SIDE moulder.
ONE ONE-SIDE MOULDER.
TWO 34-INCH WHEELS BAND SAWING machines.
ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.
ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.
ONE GOOD SHAPER.
SIX GOOD SAW TABLES.
ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.
ONE WOOD FRAME TENONER IN GOOD shape.
TWO UPRIGHT SWING SHINGLE OR heading machines, with jointers.
ONE ALMOST NEW GENUINE "BAILEY" gauge or handle lathe, with countershaft.
ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.
FOUR DOWELL MACHINES.
ONE 20-INCH WATEROUS CHOPPER complete with double elevators, equal to new.
FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

SECOND-HAND MACHINERY FOR SALE

One right hand 12 x 14 straight line engine, our make run a very short time.
One pair of engines, right and left, 16 x 20, can be used separately or together, with two large pulleys and fly wheel and connecting shaft.
Three boilers 48 x 14 with large domes, full fronts all fittings, fixtures and stack.
One 60 x 13 ft. 6 in. steel boiler, with 64 3/4 in. x 13 ft. 6 in. tubes, boiler made of 6 sheets double riveted on side seams, furnished complete with all fittings, fixtures and stack, boiler and fixtures are in perfect order having been run but three months.
One 56 x 14 boiler, comparatively new, has been in use less than a year.
One right hand iron saw frame, with mandrel, pulley, boxes, three 54 in. saws, 56 to 100 teeth in each, and one 64 in. saw, suitable for steam or independent friction feed.
One 3-block heavy saw carriage, Sewry's make, with boss dogs, V and flat track, frame and carriage are in good order, have averaged 35,000 to 40,000 ft. per day, only discarded to put in a band mill and carriage suitable for same.
One left hand 3-block light medium sized saw carriage with V and flat track.
Several portable engines from 12 to 20 horse power.

WATEROUS, BRANTFORD, CANADA

FOR SALE

A HANDLE LATHE FOR MAKING FORK and rake handles.
Inch squares are cut out of slabs, piled one on top of the other in the machine, and it automatically takes the lowest, runs it between the knives and produces the handle without any more attention. Contracts can be secured for all the handles that can be produced with the machine.
WATEROUS, BRANTFORD, CAN.

GANG SAW FILERS

TWO CAPABLE MEN WANTED AT ONCE for the season. Apply to
THE MUSKOKA MILL & LUMBER CO., Muskoka Mills, Ont.

J. J. TURNER

.. Sail, Tent and Awning Maker ..
251 George St. and 154 King St.
PETERBOROUGH

Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.
Every description of Lumbermen's Supplies and Waterproof Clothing.

WILLIAM FOSTER

Lumber and Commission Merchant

RECEIVER AND FORWARDER OF LUMBER, LATH AND SHINGLES

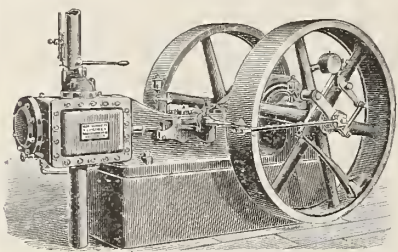
... CORRESPONDENCE SOLICITED ...
OWEN SOUND, ONT.

PATENTS CAVEATS and TRADE MARKS

Obtained in Canada.
UNITED STATES AND FOREIGN PATENTS A SPECIALTY.

Engineering Drawings Furnished.

W. J. GRAHAM, 71 Yonge St.
Toronto



ROBB-ARMSTRONG ENGINES

All parts interchangeable, Governor either Automatic or Throttling.

Monarch Economic Boilers
Economical
Portable
Durable

MILL MACHINERY AND SUPPLIES, WOODWORKING MACHINERY, ETC.

ROBB ENGINEERING CO. LTD.

AMHERST - - NOVA SCOTIA

THE

NORTH SHORE NAVIGATION CO.

Royal Mail Line of Steamers

CITY OF MIDLAND CITY OF LONDON
... FAVORITE MANITOU ...

Running in connection with the G.T.R. and C.P.R., will sail during the season of 1893 as follows:

THE CITY OF MIDLAND AND THE CITY OF LONDON will leave Collingwood at 1.30 p.m. every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same day at 10.30 p.m., after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and stopping at all intermediate ports to Sault Ste. Marie. Returning leave the Soo at daylight, making railway connections at Wiarton, Owen Sound and Collingwood.

The FAVORITE will leave Collingwood Monday and Thursday, at 1.30 p.m. for Parry Sound, Byng Inlet, French River and Killarney, connecting there with line steamers for Sault Ste. Marie. Returning stop at French River, Byng Inlet and Midland, making connection there with steamer MANITOU for Parry Sound and G.T.R. for south and east, and at Collingwood with G.T.R. for Toronto and Hamilton.

Commencing Thursday, May 4th

The MANITOU will make regular trips from Penetanguishene, connecting with trains from the south only at Midland, every Monday, Wednesday, Thursday and Saturday on arrival of G.T.R. from all points south and east for Parry Sound, making connection there with the steamer FAVORITE for Byng Inlet, French River and Killarney, where the latter connects with the line steamers for the Soo.

For tickets and further information see folders, or apply to all agents of the G.T.R. and C.P.R., or to
C. E. STEPHENS, M. BURTON,
Sec.-Treas., Collingwood, Mgr., Collingwood.

CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA: 1893

Please supplywith.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank:

Power, style and capacity of mill:
Class of manufacture:
Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank:

Wholesale or Retail: Class of stock handled:
Post Office: Shipping Point:

Owners of planing mills, sash, door and blind factories, will please fill in following blank:

Power and style:
Class of manufacture:
Post Office: Shipping Point:

(Signed) P.O.

Province.....

Address all communications to

DIRECTORY DEPARTMENT, CANADA LUMBERMAN, TORONTO, ONT.

Do You Lack Steam? We Can Help You THE CANADIAN HOLLOW BLAST GRATE

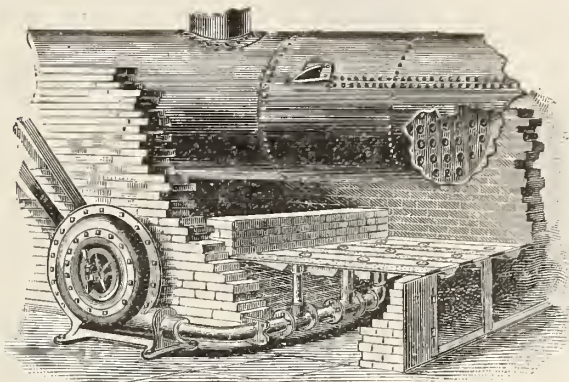
The Hollow Blast Grate supplies the furnace fire with a blast of hot air sufficient at all times to insure the rapid and perfect combustion of fuel of every sort.

It is the only appliance that steams successfully with green or wet sawdust, tanbark or other refuse and waste.

It alone has solved the problem of steaming with the fine, compact dust of the band mill.

THEY WILL NOT BURN OUT LIKE OTHER GRATES. NO SAW MILL CAN AFFORD TO BE WITHOUT. THEY WILL SAVE THEIR PRICE IN THREE MONTHS.

REGARDLESS OF THE CHARACTER OF YOUR FUEL, WE CAN GREATLY INCREASE THE VOLUME OF STEAM GENERATED IN YOUR BOILERS.



Furnace Fitted with Hollow Blast Grates and Apparatus.

HUNDREDS OF TESTIMONIALS LIKE THE FOLLOWING:

"After having used your blast grate for one year we have much pleasure in saying that in our opinion they are THE INVENTION OF THE AGE. We would not be without them under any consideration."—STEINHOFF & GORDON, WALLACEBURG, ONT.

"They are a complete success, doing more than you claimed for them. We now keep a full supply of steam using nothing but green elm sawdust, doing better than we could with dry wood using the ordinary grate bars."—C. W. THOMAS, GORDON, ONT.

"They give us full satisfaction in every respect. We now turn out one third more stuff per day than formerly. They exceeded our expectations."—MCMACKON & COATES, TULLY CENTRE, ONT.

"The blast grates started all right and give good satisfaction. We can burn most of the sawdust and keep up steam now. I would not be without them for double the price."—JOHN G. ROCK, BRODHAGEN, ONT.

"I do not consider a saw mill complete without Blast Grates."—AARON GORDON, DRESDEN, ONT.

"I put in a set of your Grates a year ago, and they pleased me beyond expectation. I spent hundreds of dollars in various contrivances to burn elm sawdust, but without success. I now burn all my dust. I can keep up better steam pressure than I could before with dry wood."—C. E. NAYLOR, ESSEX, ONT.

IT COSTS YOU NOTHING TO TRY THEM

FOR INFORMATION, PRICES OR ESTIMATES, ADDRESS

THE CANADIAN HOLLOW BLAST GRATE CO., ESSEX, ONT.

WE GUARANTEE SATISFACTION OR NO SALE

A. ALLAN, President

J. O. GRAVEL, Secretary-Treasurer

J. J. MCGILL, Manager

F. SCHOLDS, Managing Director



Canadian Rubber Company

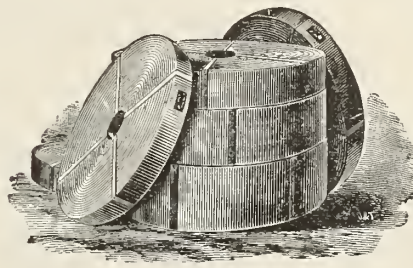
Capital, \$2,000,000.00

of MONTREAL, TORONTO and WINNIPEG

MANUFACTURE



SUPERIOR QUALITY
RUBBER GOODS
for Mechanical Purposes
RUBBER BELTING, PACKING, HOSE



FORSYTH
Seamless Rubber Belting
Seamless Tube Hose

These Patents we control for Canada

HEAD OFFICES AND FACTORY: MONTREAL

Western Branch: CORNER YONGE AND FRONT STREETS

TORONTO

J. H. WALKER, - - Manager



... THE ...
FLINT & PERE MARQUETTE
RAILROAD

FROM
Port Huron and Detroit

Is the Short Line to
SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)
MT. PLEASANT, CLARE, REED CITY
BALDWIN, LUDINGTON, MANISTEE

AND
MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from
NEW YORK BUFFALO MONTREAL TORONTO

to **ST. PAUL, DULUTH** and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and much information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., General Manager. **W. F. POTTER,** Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

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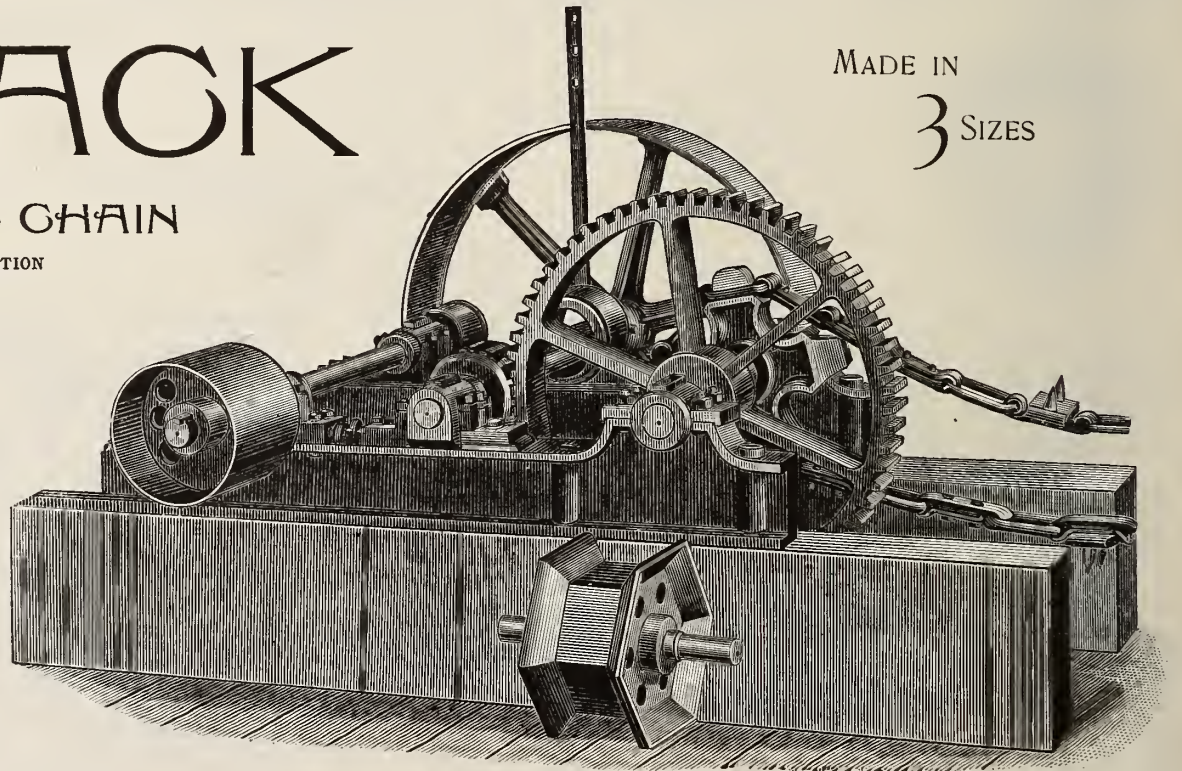
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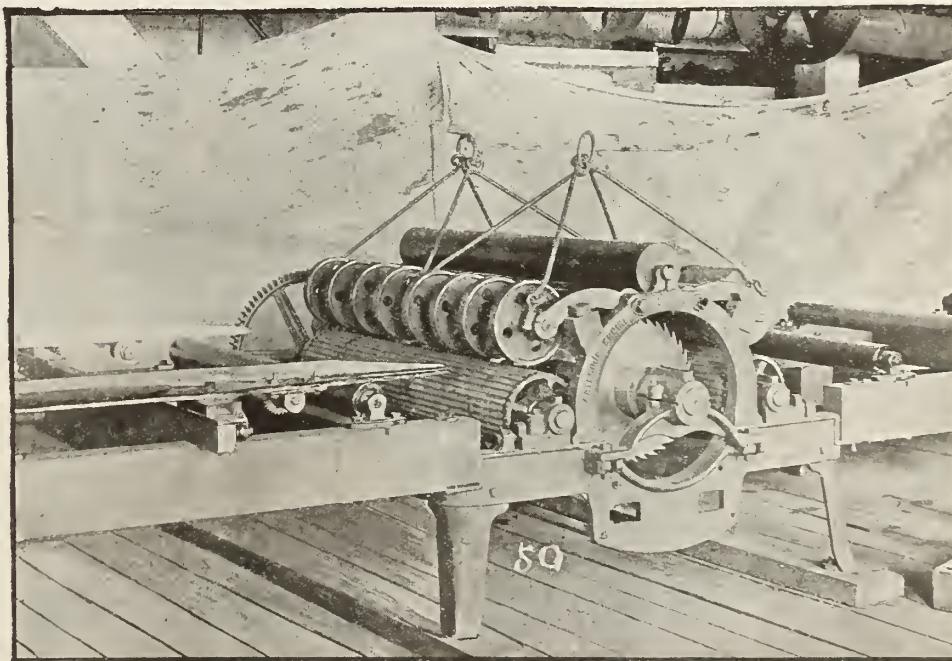
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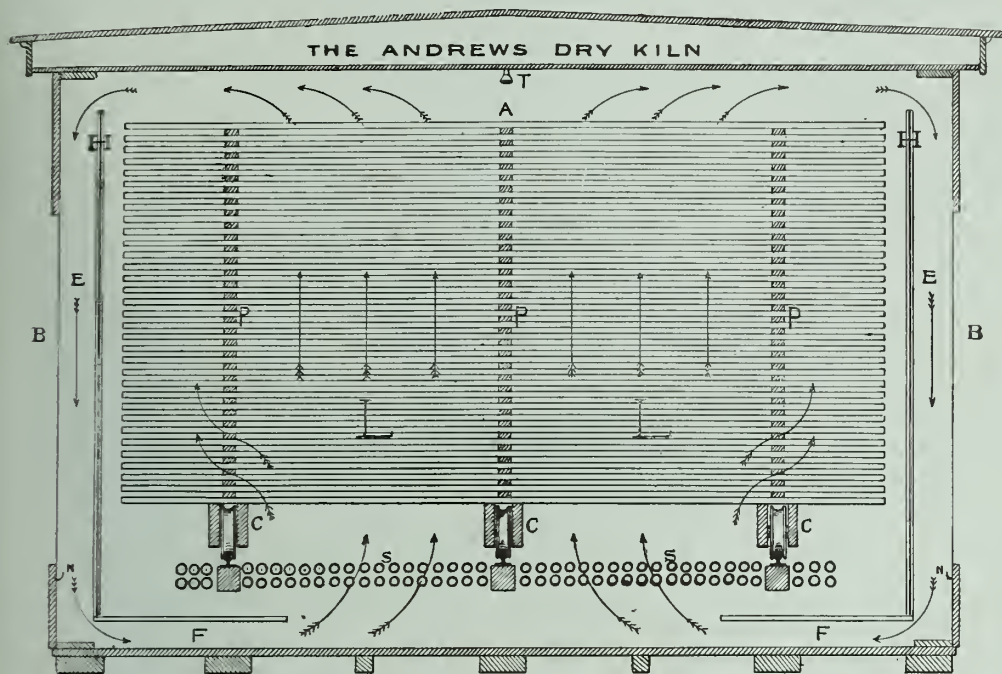
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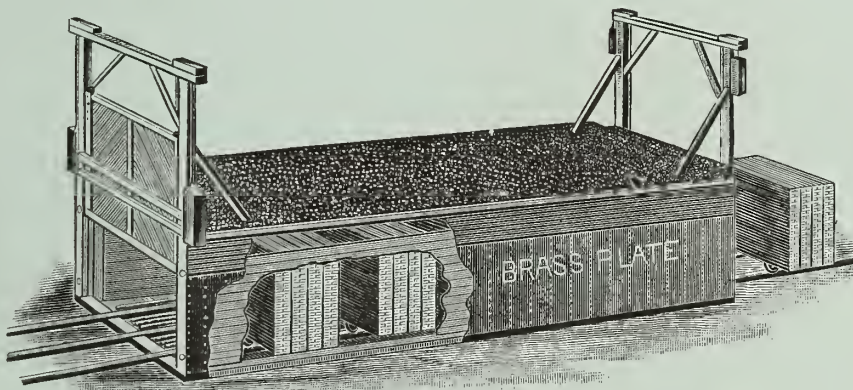
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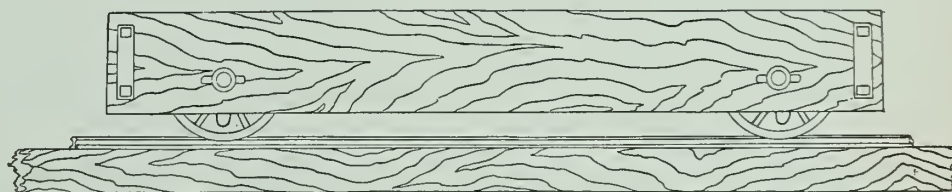
This is the verdict of a Quebec lumber firm, and we can give equal results every time.

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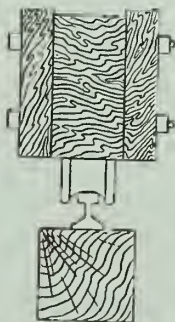
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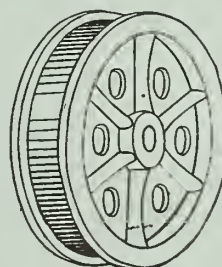
SEND FOR CIRCULARS



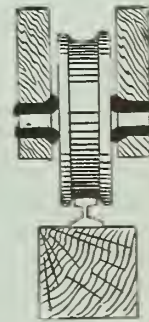
SIDE VIEW OF CAR AND TRACK.



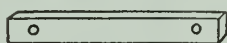
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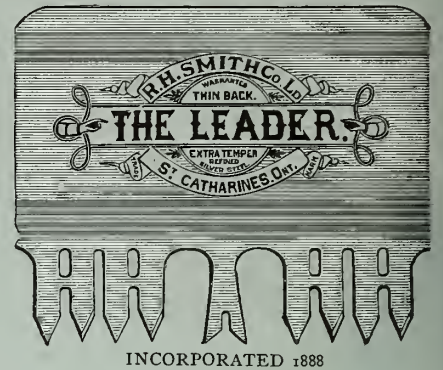
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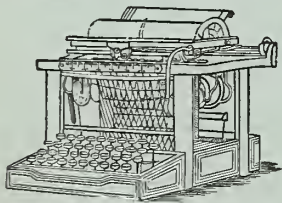
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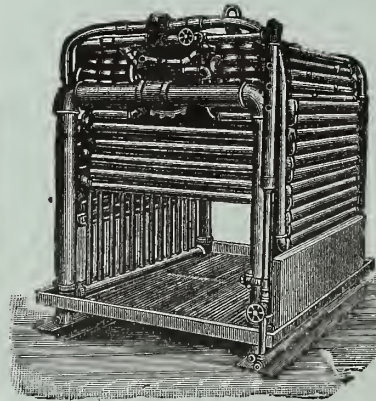
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WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE.

VOLUME XIV. }
NUMBER 6.

TORONTO, ONT., JUNE, 1893

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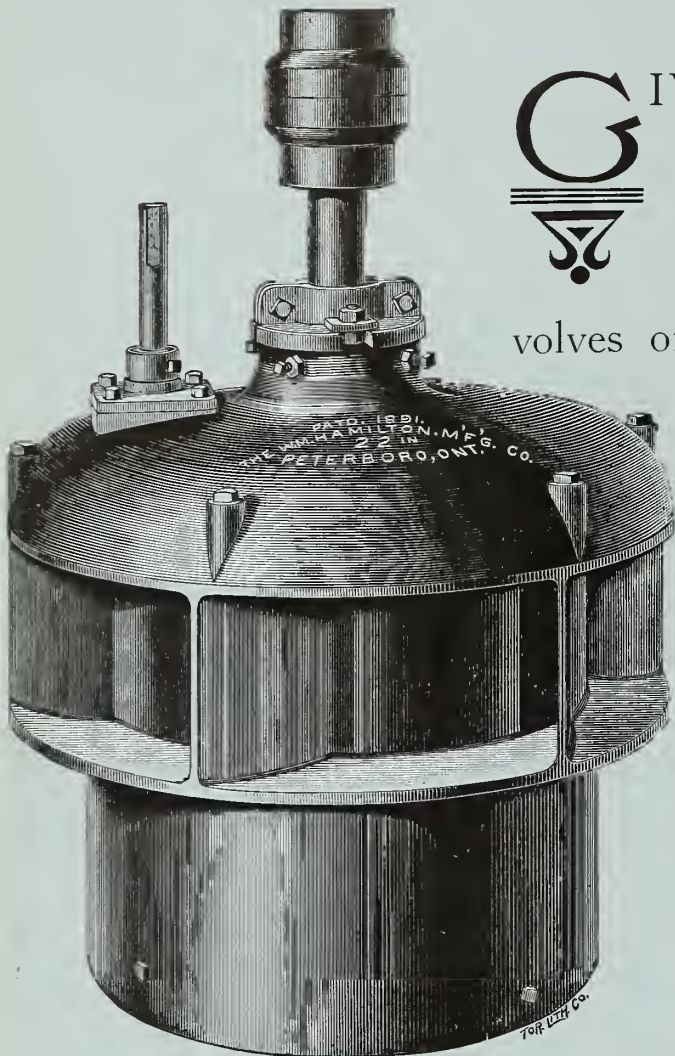
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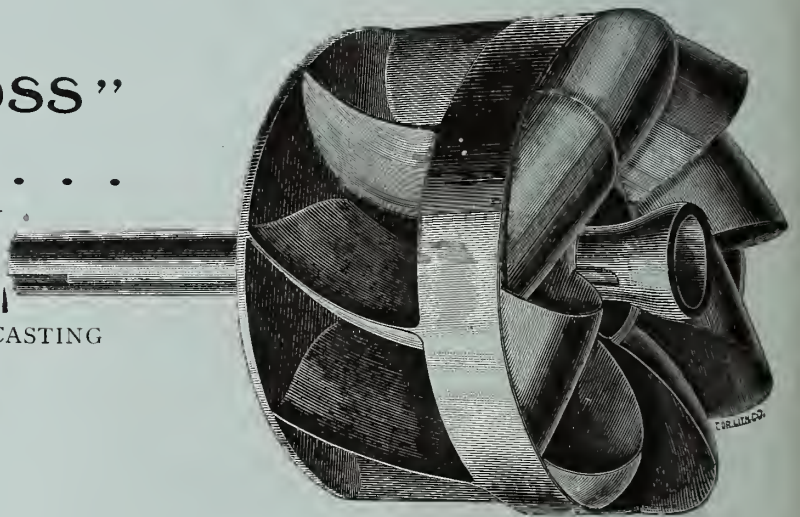
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The easiest working gate of any wheel made; revolves on steel balls, therefore, moves without friction. Easily controlled by governor.



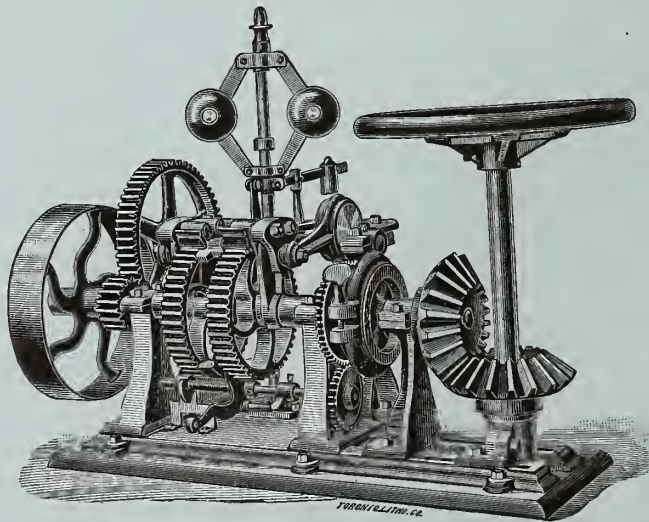
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— ONT. —

THE CANADA LUMBERMAN

VOLUME XIV. }
NUMBER 6. }

TORONTO, ONT., JUNE, 1893

TERMS, \$1.00 PER YEAR
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BY THE WAY.

IT is rather more than a year ago since we recorded in these columns the sale of a considerable portion of the Dodge estate in the Georgian bay district to Merrill, Ring & Fordney, of Saginaw, Mich. It will be remembered that the purchase embraced a sawmill, 12,000,000 feet of logs, and 500,000,000 feet of pine. The sum paid was stated to have been \$750,000. Subsequently the American purchasers sold part of the timber, but held 350,000,000 feet, and a late report from Saginaw says that they have now sold this to the Holland-Emery Lumber Company, of East Tawas, the consideration being announced at \$700,000. The expectation is that the timber will be taken to the Holland-Emery mill at East Tawas, though it is probable that the local mill will be utilized for part of cut.

x x x x

Two views of the log duty were brought out in the interview with Hon. Finance Minister Foster and his associates when in the city a few weeks ago. Those concerned in the carrying trade by water were represented by Capt. W. Hall, F. B. Cumberland, J. T. Matthews, Capt. Sylvester, A. M. Smith and W. Keighley, who entered a protest against the free exportation of logs as tending to seriously affect the shipping interests of the country. They pointed out that the effect upon their interests of there being no export duty on logs is shown by the fact that whereas last year only 175,000,000 feet of lumber was exported in logs, there is in sight already 455,000,000 feet for export this year, which may be called the third year of the absence of the export duty. When this lumber was cut in Canada the vessels of the United States had an equal right with Canadians to carry it, and did carry a large share. But now when the logs are towed across and cut in Michigan, Canadian vessels lose the possibility of carrying any part of it. The absence of an export duty, they declared, points to a continual increase of the exports of logs, and eventually the closing of all the large mills in Canada except for home requirements. Mr. A. H. Campbell, of the Muskoka Mill and Lumber Company, asked that the government do nothing in regard to the re-imposition of the duty until the lumber manufacturers have had time to discuss the question.

x x x x

Interest in lumbering at this time of the year centres to no small extent in the work of the drives. Just what trade conditions may be at a later period depends to some extent on the ease with which the lumber comes forward the early part of the season. It looks just now as though there would be few, if any, logs tied up this summer, and any that did not come down last year will be brought forward this season with the new cut. All over these conditions seem to prevail, for heavy rains and large freshets have been universal. In the Ottawa district the danger is from a too great abundance of water rather than too little. In the northern districts plenty of water is not wanting, and encouraging reports are reaching us regarding the drives in New Brunswick. It is believed that all of the logs in that district will come out. On the St. John river it is estimated that over 30,000,000 feet of logs are already in the Douglas boom above Fredericton. R. A. Estey, of Fredericton, who has a large drive on the Tobique, has expressed the opinion that every log on that tributary of the St. John would be got out. Logs are running freely at Grand Falls and coming out of all the tributaries farther up. All the small streams tributary to the Nashwaak are pouring Gibson's logs into the main stream. The St. John river is several feet higher than at any time last season. All the streams tributary to the lakes in Queen's

county, the outlet of which is the St. John river, will be cleared of their drives without difficulty. On the St. Croix, on the Maine border, one drive is running into the booms and those on other small tributaries of that river are well along. In Albert county the drive of C. and I. Prescott is all out into the main stream. On some of the streams men are being discharged, as the high water enables the logs to be got out with much smaller crews.

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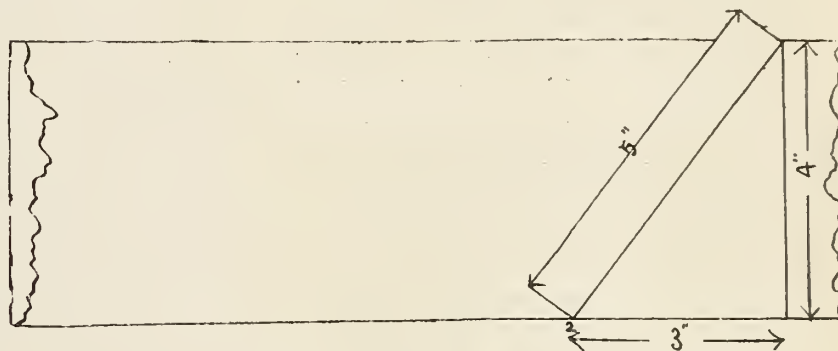
In last month's LUMBERMAN the remark was made by Mr. C. H. Clark, of Barrie, that owing to the steady advance in the price of northern pine, yellow pine was being used in the eastern States for various purposes in building operations where white pine had hitherto held the field against all competitors. In a report from Boston, before us at this writing, we are told that a growing demand exists in that market for southern pine. The Northwestern Lumberman, under the caption of "High Priced Lumber," discusses this question, remarking that in these days of comparatively high prices for northern pine in the west, we hear much about the abandonment of contemplated building enterprises on that account. Our contemporary does not think there is very much in this objection, for the reason that in the house of the present day where brick, stone and labor are the heaviest items of expenditure, an additional price for the lumber that is required, does not to an appreciable extent affect the price of the contract. But if the difficulty has to be surmounted it is pointed out that there is still plenty of cheap lumber. For joists and scantling there is hemlock, and when hemlock will not give satisfaction for girders and heavy joists, yellow pine can be procured at prices not too high to be employed in first class structures. Whilst, however, other woods may for certain uses, be made to take the place of white pine on the ground of cheapness, it is to be remembered that the better article in any line of commerce will always more than hold its own. When competition reaches its keenest and depression is at its worst it is the lower values that suffer most. The silver dollar may depreciate, but the gold dollar never. The case is put this way by the Northwestern Lumberman: "We should not overlook the fact that the recent advance in prices for northern pine has been scored in the midst of increasing competition from southern lumber, which is sold as cheaply as before the advance in northern pine values. This is an important fact, and conclusively shows that the soft pine of the north holds a unique place among the lumber woods that nothing is apparently able to dislodge. White pine manufacturers and dealers can safely invite any competition with full assurance that their lumber will sell freely as long as any remains."

OUR SENTIMENTS, TOO.

HERE is some advice tendered by Hunt's Merchants' Magazine: "According to the character or extent of your business, set aside a liberal percentage for advertising, and do not hesitate. Keep yourself unceasingly before the public; and it matters not what business of utility you may be engaged in, for, if intelligently and industriously pursued, a fortune will be the result."

A HANDY RULE.

THE rule often called "the 6, 8 and 10 rule," says a writer in The Tradesman, is not nearly so well known as it should be, as this would often get men out of scrapes that now bother them. For example: we are out at the lumber pile and want to cut a piece six feet long and have the ends square. We have only the ordinary two foot rule with us, no try square or carpenter's square, and how shall we get the ends square. If we had one square—we could measure down each side an equal distance, but as neither end is square we shall have to use our "6, 8 and 10 rule." We begin by measuring along the straight edge of the board and (supposing it to be a board not exceeding twelve inches) lay off six inches, marking each point, making one point where we wish to cut. Now, measuring across the board, we lay off eight inches and make an "arc," by swinging the rule from the first point. For the final mark we take ten inches on the rule, and placing one end on the second point we marked, swing it until "ten inches" crosses the arc swing. A line drawn through the first and third points will be at right angles to the edge of the board. In other words, we form a triangle with a base six inches; a height of eight inches and a hypotenuse of ten inches, which makes a right angled triangle. The cut will show this plainly. It will be seen that it is marked 3, 4 and 5 inches in the



A HANDY RULE.

cut instead of 6, 8 and 10, but it is the same proportion and may be 12, 16, 20 inches or feet, according to requirements. Start with the point marked one and lay off two just three inches from it. Again, using point 1, lay off point 3, which is just 4 inches from it, and from point 2 measure where the line will cut point 3, when just 5 inches long. Then draw through 1 and 3 and you have the line at right angles to the edge of the board. It may be interesting to note that this valuable rule, (which is really that a "right angled triangle can be formed by having the sides in the proportion of 3, 4 and 5") was discovered and published by the Greek philosopher Pythagorus several thousand years ago.

THE ENGINE ROOM.

IT has been said that the moisture from steam will cause whitewash to flake off, and where it falls on the working parts of machinery it will act as will so much emery. As to painting of floors, it had been my practice for a number of years to have the floor of my engine room given a coat of paint twice yearly. The place would look sleek and bright for a few weeks, and then begin to show uneven wear. Parts of machinery moved on the floor would leave their tracks, and the use of soda for washing the boards would cause shading not at all artistic. Planed tongue and grooved lumber without paint may be washed once a week with potash or lye water, and will soon bleach out, and will always present a good appearance.

THE CANADIAN PINE LUMBER TRADE.

By Wm. Little.

YOU have no doubt observed in the discussion that recently took place at Ottawa on the subject of the re-imposition of export duties on sawlogs that Mr. John Charlton, M.P., referred to the present prosperous condition of the Canadian pine lumber trade as a reason for not re-imposing the export duties, and many Canadian lumbermen, misled by his remarks, fancy that in some unaccountable manner, it has contributed towards bringing about this condition, whereas a knowledge of the circumstances will show that the free export of sawlogs would have completely prostrated the Canadian pine lumber trade but for the scarcity of pine timber in Michigan.

That it has caused a veritable boom of prosperity to the log exporting trade is no doubt correct, and to this extent it has of course been injurious to the Canadian pine lumber trade, as every board manufactured from these sawlogs comes directly into competition in the United States markets with our home manufactured lumber.

Even the reduction in the rate of duty on white pine lumber made by the Americans wholly in their own interest from \$2 to \$1 per thousand feet has hardly anything whatever to do with it.

The present prosperous condition of the Canadian pine lumber trade is simply due to the fact that the supply of white pine lumber both in the United States and Canada in the season of 1891 fell greatly short of the prospective demand—that in the United States alone in the three great white pine producing states—Michigan, Wisconsin and Minnesota, according to the published returns, being about 721,000,000 feet short that season, as compared with the supply of the previous year; this shortage, as you will observe, being about fifty per cent. more than our whole export of white pine lumber to the United States.

It is this fact that has brought the Canadian pine lumber trade into a prosperous condition, not the reduction in the rate of the American lumber duty on white pine, and as I have said above, in spite of the injurious effects of the export of sawlogs.

Last winter the American lumbermen with their usual heedlessness made every effort to again overstock the market, but they were unable to do so from the scarcity of white pine timber in Michigan, the result being that they succeeded in securing only an ordinary season's supply, even with the more than 200,000,000 feet of sawlogs gratuitously thrown in from Canada, which left the shortage of the previous year still existing; and but for these Canadian sawlogs sawn last year in Michigan the United States stock last fall, instead of being about the same amount short as in the previous year, would have then been near 1,000,000,000 feet short of an ordinary supply, which would have at once placed the Canadian lumber trade, where it ought now to be, in the highest degree of prosperity, no matter what the American duty might be on our pine lumber, for since they want the lumber they would simply have to pay the duty.

And here I may say that if the sawlogs which have already been, as it were, bonused away to Michigan, and the 400,000,000 to 500,000,000 feet that are to be rafted over there this year, remained as they should for the profits and industry of our own people, the Canadian pine lumber trade, which is simply fairly prosperous, would now be in the most prosperous condition ever known in its history.

But, unfortunately for the prosperity of Canada, so imprudently has our Government acted in this matter in granting these exceptional advantages to foreigners that, now when large profits should be made by Canada and Canadians out of our pine timber resources, it will be found nearly the whole timber, tributary to waters entering the Georgian Bay and Lake Huron, our last really valuable pine timber reserve, is held by Americans, who have acquired it at prices less than one-third what they would have to pay for similar timber in their own country, and not one-tenth what it would be worth five years from to-day. And great as is this loss to Canada it is not even the whole loss we must sustain, for most of it has been purchased with the intention of transferring its manufacture, shipping and other advantages from Canada to the United States, so that our people are not

to derive from it a tithe of the benefits that a proper governmental policy on this subject would give us. And even now, when these conditions must be well known to every member of the government, possessed of any intelligence, as if it was determined to prevent our people from realizing the advantages to be derived from a scarcity of timber in Michigan, our chief competitor in the white pine lumber trade, it is hesitating about re-imposing even the \$2 rate of export duty on pine sawlogs, a rate in no way even protective, as it only offsets the United States duties on the spruce, red pine and other lumbers of Quebec, New Brunswick and Nova Scotia, and the spruce, fir and cedar lumber of British Columbia and the west. And we are again this year expected to throw away about a million dollars in revenue on the 400,000,000 to 500,000,000 feet of sawlogs to be exported to Michigan free of export duty this summer, an amount about equivalent to our whole exports of sawn pine lumber to the United States, there to be manufactured into lumber to compete with our home manufactured lumber on which the Americans still exact duties; thereby not only filling the American market with lumber that would otherwise be supplied by our home product, but doing so with advantages under existing conditions equal to near \$3 per thousand feet in their favor, while at the same time depriving our own people of employment in the manufacture, shipping and other industries connected therewith—an imprudent act on the part of the government for which no satisfactory excuse has ever been or can be offered.

MONTREAL, Que., 1893.

HIGH STEAM PRESSURE.

IT is well settled that engines can be worked with less consumption of steam if run at high boiler pressure, on either the compound or other multiple-expansion system, than at low pressure, and the present tendency in steam-engineering circles is toward an increase of pressure rather than a decrease. What the exact ratio of gain is as the pressure is increased has not been absolutely determined by any experiments of which we have knowledge, says the Engineering Record, but there are sufficient data which may be obtained here and there to make the fact of the increased saving certain. For example, there have been experiments showing that a compound engine of the Corliss type, working under 80 pounds pressure, will use from 16 to 17 pounds of steam per horse-power per hour. There are other cases where a similar engine at 110 pounds pressure uses from 13 to 15 pounds of steam per horse-power. Other data are available which show that at 150 pounds pressure the consumption of steam is reduced by triple-expansion engines to 13 pounds, or, perhaps as low as 12.5 pounds. Making allowances for differences in the type and condition of different engines from which data have been obtained, there is ground for the belief that with an increase of pressure from, say, 100 pounds to 150 pounds in the compound engine, with suitable change of proportion to realize the full advantage due to expansion of the steam, there is at least 10 per cent., and, perhaps, 15 per cent., saving in the engine carrying the highest pressure. Without going into refinements there is further reason to believe that between a compound engine running at 100 pounds, and a triple-expansion engine running at 150 pounds, both suitably proportioned and loaded, there is a similar gain of at least 10 per cent., and perhaps, 15 per cent., due to the engine working under the higher pressure and greater expansion. These figures are given to show the general feeling among those who are well informed, rather than to define exactly the relative economies; and it may further be added that they are intended to indicate the relation which exists in engines which are in good order and well maintained, and the relative economy only in the consumption of steam.

To secure the benefits of high pressure it is necessary to provide extra strength in the boilers, in the steam piping and in the engine itself, or at least in the high-pressure cylinder to withstand the increased strains. It is necessary to employ more stable joints, besides a better class of packing, and the whole equipment must be adapted, in its various details, to resist the stronger forces which are brought to bear upon it. When the plant has been well designed for these special duties, it

must, when set to work, be watched with increased care, and by a more skillful class of attendants, to keep it properly maintained, than one designed for low-pressure. The breaking out of packings, and the increased wear of steam valves and pistons in the engine, introduce waste where high pressures are carried, which may be entirely absent where the pressures are limited to those which have been common in the past. Extra wear and tear and depreciation, and the losses of steam and fuel which they cause, are the accompaniments of excessive pressure even when the construction is of the best class, and these, so far as they act, offset the intrinsic advantage which might otherwise be obtained. The interest and depreciation charges on the more complicated and expensive plant, the waste of steam referred to, the extra cost of attendance, and the increased cost of repairs and supplies, use up at best a large part of the saving of fuel, which can be made by the more economical engine, and these may become, with careless management, even larger in quantity than the entire amount of saving, so that the use of high pressure produces a net loss rather than a gain.

Unless those who are intending to profit by employing excessive steam pressures and a properly proportioned engine, either of the compound or triple-expansion class, are prepared to combat the difficulties in handling the increased forces here briefly alluded to, and make proper allowance for the waste of fuel and current expenditures incident thereto, it is almost folly to expect in the end satisfactory results.

LOSS FROM THE USE OF WORN-OUT MACHINERY.

IT is poor economy, says the Scientific Machinist, to continue a tool or machine in use after it has served its time and is ready for the scrap pile. Yet we see it done every day. Machines that will turn out less than half the work that new ones would be being run in many shops and many manufacturing establishments. The slow operation is not the only loss. Inferior work, stock spoiled and time spent in rigging and fixing up are to be added—and important additions they make. Often labor less skilled can do with a good machine what can be done only with much more costly help on an old tool.

Nor is the machine shop the only place where great loss is entailed by the use of worn-out machines. Some plants are even more in need of attention. The possibilities of waste at the source of power are very great. Badly designed furnaces, boilers venerable with age and in execrable condition, defective chimneys, bad steam conditions and appliances, worn-out, shaky engines and incompetent engineers and firemen, are costing manufacturers enough every year to cut down very materially the aggregate net earnings of all concerns using power. Manufacturers who will go out of their way to save a piece of material worth ten cents and scold their workmen for not looking carefully to economy in this direction will listen complacently to the complaints of their foremen condemning used-up tools, and the recommendations of their engineers that repairs, or new purchases of engines, boilers, pumps, injectors, packing, lubricators, etc., be made, and pass them by with the mental comment that "guess if they have served so long, they can a little longer," or something of that kind, seemingly blind to the fact that the worn out machinery is eating up earnings enough to buy new in a short time.

If they looked more to the performance of machinery there would be less complaint of small margins.

DRY STEAM.

IT is probably only a question of another 10 or 15 years before engineers generally will again be using slightly superheated or dry steam, not only in land engines, but at sea and with locomotives. Modern ideas favor the change, and the economy which will be obtained by preventing the large amount of condensation now going on in steam cylinders. The presence of water is acknowledged to be uneconomical and injurious. A steam jacket is only a simple means of raising the temperature of the cylinder metal touched by the steam. For the maximum economy it is important to increase the temperature of our cylinders, and this is precisely the effect of superheated steam, the result being that there is much less condensation.

VIEWS AND INTERVIEWS.

Success
on Top.

The reply of Daniel Webster to the young man who sought his advice as to taking up law has often been quoted. "Yes," said the learned jurist, "there's lots of room on top." How to get there is the bother with many men in various callings. "On every side," some one has said, "we see the plodding masses following in the old rut, each contending with his neighbor for the scanty herbage within reach of the well-beaten pathway, while just beyond, on either side, are pastures fresh and green. Originality is the ladder which affords an escape from this old rut, which is being worn deeper every day by a constantly increasing stream of plodding, grovelling, mediocre humanity. These plodders are found in all kinds of business. They are struggling simply for bread, and many there be who fail to win it. The man who would make a success of a business venture must leave the rank and file, and get off the tread-mill. He must climb out of the rut. He must be an originator of practical ideas, and an independent thinker. He must be able to clearly see a point, and then possess the executive ability to make it. He must possess sense enough to know that he cannot advance without breaking ranks."

A Broader
View.

It is not alone men who are lost in the desert or the forest, who walk in a circle. Some men, as the saying goes, trot around from day to day the one little cabbage leaf and imagine that its circumference is the circumference of the world. They see nothing beyond it but darkness. Other worlds may have an existence, but to them these are as mysterious as the planet Mars. There are business men built on this plan. It is needless to say that they have no use for a trade paper dealing with matters connected with their calling. Nothing is to be learned outside of the knowledge they already possess. They know it all. But somehow, just as with the tree whose roots receive no water, a process of general decay gradually sets in. Or, like the farmer who works the same soil from year to year, constantly cropping it, and never feeding it with needed nutrition, the powers of giving forth finally weaken and are eventually lost. One cannot constantly give out and never take in. The system of reciprocal recuperation and feeding exist all through nature. The man of business, who expects to rise to the heights in the world of commerce, must widen his horizon, broaden his vision, dig deep, look up and beyond, be ready and expectant of learning something new and valuable every day. There is no such thing in the world of business as living like the oyster, closed up in one's shell. There are worlds beyond.

Don't
Worry.

"A man's business life is too short," says a contemporary, "to waste any portion of his time in fretting over any trifling matters of business. If a man has a mind to be annoyed by every little mishap that occurs in his establishment he can keep himself in constant hot water by worrying. There is neither sense nor reason in flying into a fit of passion because some careless clerk breaks a stone fixture, leaves a faucet running, smashes a jug, or commits some other trifling blunder. Constant fretting on the part of employers makes clerks and book-keepers nervous, and in this condition of mind and body they are far more apt to make mistakes than they otherwise would be. Business worry wears a man out very rapidly, and when the habit of fussing is acquired, it is extremely difficult to rid oneself of it. There are men who work themselves into perfect fits of passion over little insignificant matters not worthy of serious thought and consideration. There are other men who fret because they fear that something unpleasant is going to happen to their business. They may have obligations to meet, a note due at the bank, while their customers cannot be depended upon to help them out of a tight corner, but there is no earthly use of borrowing trouble until trouble comes, and then every enterprising merchant should manfully meet it. There is a great difference in merchants. Some wear themselves out before middle life, become irritable, morose, snappish and disagreeable in the conduct of a very small business, while other men,

with vast interests and great responsibilities who are calm and well poised, patient and nervy, live to a good old age without borrowing trouble or shattering their nerves over trifles."

The Good
They Do.

It has often been remarked that the good a man has done is seldom known until after all that is useful of him here has been consigned to the earth. The cynical, yes the cynically critical spirit is strong in human nature, and more effort is given by many to fault-finding than to meeting out words of encouragement and praise to those who have earned these. We would not like to say that individuals or organizations are doing all the good they ought to do for others. The conviction is strong that we all fall short in these matters. Yet much effort is being exerted for the well-being of others that we are often slow to take cognizance of. Directly in the interests of the thousands of lumbermen whose work shuts them up in the bleak forest for about six out of twelve months in the year disinterested efforts are put forth both by our churches and temperance organizations to a degree that we frequently hear nothing about. Work among the lumbermen is a distinct department of W. C. T. U. effort and large quantities of literature are distributed among the camps every winter. A report from the Presbyterian Synod of Montreal and Ottawa before us at this writing shows that during the season just closed 124 camps, 8 depots and 14 stopping places had been visited and that the gospel had been preached and tracts distributed among 4,154 men in the woods. As many as 1,120 volumes had been distributed among men as well as 22,318 tracts. The lumber regions visited were Mattawa, Madawaska, Gatineau, Bonnechere, Petawawa, DuMoine, Muskoka, and the shanties in the vicinity of Scott's lake. It is proposed that next winter two missionaries be engaged during the season, one as heretofore in the Upper Ottawa and Mattawa, and another in the Gatineau district.

FIRE APPARATUS FOR A MILL.

IT may be handy to know, says a contemporary that about 65 pounds water pressure at a nozzle will be required to throw a one-inch stream 150 feet horizontally with a single length of hose, 70 pounds pump pressure at the nozzle. Seven to nine pounds must be for each 100 feet of hose, and the diameter of the hose used has considerable to do with the result. To maintain 50 pounds pressure at the nozzle and throw water 125 feet horizontally or 79 feet vertically through 100 feet of hose will require 67 pounds pressure at the pump. For 200 feet of hose 84 pounds pressure; 300 feet, 101 pounds; 400 feet, 118 pounds; 500 feet, 135 pounds; 600 feet, 152 pounds; 700 feet, 169 pounds; 800 feet, 186 pounds; 900 feet, 203 pounds; 1,000 feet of hose; 220 pounds pressure will be required. By using the above data when setting up a fire pump, the reader will not be in the predicament a mill owner recently found himself. The pump and connections were erected and upon testing the stream through 300 feet of hose, it was found that sufficient power could not be had at the pump to throw the water 20 feet beyond the nozzle.

MONOPOLIES.

IT would seem that modern monopolies are not without their historic ancestors. They have simply evolved in dimensions and faded in their original modesty. The first concepts were local and limited, every pea having its rink in a special thimble; the latter edition has no such waistband, but has all the planet on which to live and move and have its spoils. The difference between the sixteenth and nineteenth centuries in their monopolistic histories is simply a matter of degree. The cockatrice is still in the egg. In the days of the Tudors patents to deal exclusively in particular articles were so lavishly bestowed on courtiers and royal sycophants that scarcely a commodity remained free. They extended to salt, leather and coal, and only made a respectable halt by the bread basket of the people. Even Lord Bacon, the legal luminary of the times, handed over to a pair of fortunate barons the exclusive manufacture of gold and silver lace, giving the dainty patentees the right to search houses and also to arrest any person alleged to be an interloper in the trade. Is the modern coach traveling the same road?

STEAM CEMENT.

MANY times little occurrences come up in an engineer's practice where some kind of cement which will stand the heat and pressure of steam can be used to excellent advantage. Perhaps a blow hole in the casting opens up and a stream of steam or water escapes. In such a case it would be most desirable if there was some cement handy which could be put upon the defective spot and would set within a few moments and afterwards remain tight. Many other circumstances often come up where a good cement that would set solid and strong would be found most useful. To be sure, one of the best ways of fixing such things when they occur is to replace the defective by new material, but as this cannot always be done without the expenditure of more time and trouble than is convenient to give it, something that will serve a good purpose instead is desired. A contemporary gives the following recipe for a preparation which, we think, will be found quite useful, as we have often used a cement of similar composition to this: Five pounds Paris white, five pounds red lead, four pounds black oxide of maganese. The whole is to be well mixed and a little asbestos and boiled oil added. This cement will set hard in from two to five hours, and it is not subject to expansion and contraction to such an extent as to cause leakage afterwards. Leaks that occur in places which are difficult to get at and remedy, may often be stopped by the application of a little cement composed of the above materials in about the proportions specified.—Tradesman.

"DONT'S" FOR STEAM USERS.

DO not condemn any appliance introduced ostensibly for the purpose of securing economy or safety without giving it a fair trial, as some of the most valuable inventions now in use were ridiculed and rejected when first introduced. Many excellent "devices" have been condemned by those having the care of boilers and engines. Do not discountenance any device, invention, adjunct, or arrangement that will lessen your labor, induce economy, and at the same time give a guaranty of safety. Give everything placed in your charge by your employer a fair, impartial trial.

Do not allow the boiler front to become filthy or the gauge-cocks to leak and become covered with mud and the salts resulting from impurities in the water, as this would furnish strong evidence of slovenliness.

Do not let anything connected with the boiler in your charge run from bad to worse, with the idea that at some certain time you will have a general overhauling and repairing, because an accident may occur at any moment, involving serious loss of life and property.

Do not neglect to have a boiler insured when practicable, as insurance is generally accompanied by intelligent inspection, which furnishes a guaranty of safety to the engineer, owner, or steam user.

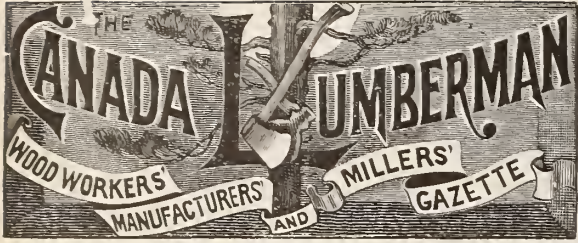
Do not reject the advice or suggestions of intelligent boiler inspectors, as their experience enables them to discriminate in cases which never come under the observation of persons of a different calling or pursuit.

LINKING BELT FOR SLOW MOTION.

AS is well-known by all practical men, belting in general use is not well adapted to slow motion uses, or for driving any machine or piece of machinery that has a very slow motion. Nor is it always convenient to drive such with gear wheels, even if it were desirable to do so, which, as a rule, it is not. As a substitute for both no better can be found than chain, or what is commonly called "link belting." It is well adapted to the purpose and as reliable as gear wheels, there being no possible chance to slip or run off the wheels.

EXHAUSTION AND ACCIDENTS.

IN investigations made as to the causes of industrial accidents, not a few of these are traceable to exhausted and overworked labor. Men as yet are not cast iron automatons, nor is there that metallic fidelity in bones and sinews that we find in locomotives and clocks. There is a limit to the vigilance and endurance of the strongest of men, and imposition in that direction is not only a claim on a humane society but an occasional subpœna of the coroner. In many cases of accident the cause is not so much due to carelessness as to helplessness.—Age of Steel.



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J. S. ROBERTSON, EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

LUMBER IN THE LEGISLATURE.

THE question of lumber in several different forms occupied the attention of the Local Legislature at the sessions which closed in this city a week ago. There were a number of enquiries concerning the disposition of and changes in sales of certain berths at the last sale of the local government, and also in regard to the rights of locatees and settlers on lands over which timber licenses extended.

A bill to establish the Algonquin National Park of Ontario was introduced by the Commissioner of Crown Lands and carried through its several stages to completion. We deal with this matter in a separate article.

A discussion of the government's timber policy, introduced in the following resolution by Mr. Miscampbell, gave rise to the leading debate of the session touching lumber:

This House disapproves of the policy of disposing of the timber reserves of the province without its approval being first obtained, and is of opinion that the right to cut timber upon the present reserves should be sold under such conditions as will ensure the manufacture of the lumber cut therefrom within the province and more effectually guard against the unnecessary cutting and destruction of the small growing timber on such reserves.

The member for Simcoe, in speaking to the question, referred to the valuable assets the province possessed in its timber resources. And yet these resources were rapidly diminishing under the policy pursued by the government. A heavy drain was being made on the supplies of timber in the large and growing exportation of logs, free of duty, to the United States. It was given on good authority that 180,000,000 feet of logs were towed from the north shore of Georgian bay to Saginaw last year and it was estimated that the exportations of the present season would reach fully 400,000,000 feet. Michigan lumbermen claimed to have 3,000,000,000 feet of standing pine in Canada. In connection with this phase of the situation Mr. Miscampbell referred to the growing scarcity of white pine in Michigan, Wisconsin

and Minnesota. It was admitted by Michigan lumbermen that they were touching the end of supplies in that state; it became absolutely necessary that supplies be sought for elsewhere, and no more convenient or desirable point was to be found than the forests of Ontario. With no restrictions as to where the lumber should be cut; with no duty exacted on logs exported to the States, and having their own mills in Michigan, with certain advantages over Canada, in respect to cost of manufacturing the lumber, United States lumbermen had good reason to cast covetous eyes on Canadian pine. In view of these facts Mr. Miscampbell's contention was that the government should do what was in its power to secure to the province and people the benefits that would come of the manufacture of the timber cut within our own borders.

Mr. Clancy said the plain duty of the government was to preserve the resources of the province. He argued that there was an alarming shrinkage in the size of timber cut. To-day they were cutting timber that 20 years ago would have been passed over.

The Commissioner of Crown Lands vigorously defended the policy of the government. Timber limits were sold as the necessities of the Province called for certain sums of money to cover the expenditure of public works. He believed it would be injudicious to adopt the resolution as that would be the means of provoking retaliation from the United States. The international relations between this country and the United States were already strained over the question of duties and it was not for this province to involve us in international troubles.

The leader of the opposition, Mr. Meredith, said that whilst there might be something to be said against imposing an export duty on logs going from the whole of Canada there could be no contention on the part of the United States that the province had not the right to insist that the timber sold should be cut within its borders.

The outcome of the debate was foreshadowed in the remarks of the Minister of Education who, replying to the statement made by one of the speakers that the question was being discussed with a strong party bias, argued that nothing else was to be expected as the resolution meant a vote of want of confidence. The vote was certainly on strict party lines standing 48 to 27 and the resolution was consequently defeated.

If Mr. Ross' statement is to be taken as expressing the views of the members generally, whilst not, perhaps, unexpected, it must be regretted. The question suggested by Mr. Miscampbell's resolution was commercial in its character, and aside from the policy enunciated, whether the best in the interests of the province or not, ought to have been discussed purely from a commercial basis. We shall not easily get at right views of business legislation except as we prepare ourselves to deal with business questions from the point of view of strict business and away from the prejudices of political partizanship.

ALGONQUIN PARK AND FOREST PROTECTION.

THE bill of the Commissioner of Crown Lands to establish a forest reservation and national park, passed at the sessions of the Local Legislature a few weeks since, gives a practical turn to Canadian forestry. The matter had been under consideration by the government for some years and about a year ago a Royal Commission was appointed to enquire into and report on the matter. This report was laid before the Legislature at its last session.

A description of the location of the park has already appeared in these columns. It will be situated in the Nipissing district, embracing about eighteen townships comprising 938,186 acres or 1,300 square miles. Of this 106,000 acres were under water. One important reason for the selection of this territory, said the Hon. Mr. Hardy, was that it had within its bounds the sources of all the considerable rivers flowing into the Nipissing or Muskoka lakes. Those having charge of the park would be able to inaugurate a system of forestry that would be beneficial to the whole province. The territory, in addition to being a splendid fishing ground, was the natural home of the moose, deer, otter and beaver. It was not intended to allow any destruction of these animals, those in charge, however, being empowered to

kill destructive animals, such as wolves. In certain portions permission would be given for the erection of summer cottages and hotels, and he had no doubt but it would be in time a most popular resort for health and recreation. No fishing, except with the rod and line, would be permitted. One superintendent at a salary of about \$800 to \$1,000 and four or five park rangers at a salary of about \$500 each would be necessary. A \$1,000 hut would be erected for the superintendent and ten or fifteen huts at a cost of about \$20 each merely for sleeping purposes. This would be about all the cost outside of a few implements.

The report of the commissioners indicates an intelligent and sympathetic interest in the general subject of forestry. The names of the commission were, Alexander Kirkwood (chairman), Aubrey White, Archibald Blue, James Dickson and R. W. Phipps. All have to a considerable extent been careful students of forestry, and they have at the same time a very general knowledge of lumbering interests and needs.

There is a good deal to be said on the subject of forestry from the scientific and also the national point of view. No intelligent lumberman will pretend to say that serious consequences do not come to any country as a result of the too prodigal destruction of its forests. As the Ontario commissioners remarked in their report: "The experience of older countries has everywhere shown that the wholesale and indiscriminate slaughter of forests brings a host of evils in its train. Wide tracts are converted from fertile plains into arid deserts, springs and streams are dried up, and the rainfall, instead of percolating gently through the forest floor and finding its way by easy stages through brook and river to the lower levels, now descends the valleys in hurrying torrents, carrying before it tempestuous floods."

With a somewhat rapid denudation of Ontario forests of late years, a national view of the question is one that is coming home to the people with enhanced emphasis. The timber resources of Ontario, and the other provinces as well, are among their richest possessions. Should these some day become extinct would not the financial condition of the country become seriously impaired? To many, we know, this question will seem so chimerical that it will not cause them a moment's consideration. Such a possibility will not come in our time is a frequent setting of the problem. But from the genuinely national standpoint have those of the present day no interest in the conditions of the future?

The danger usually in pursuing a study of this question from either the scientific or national side is that one forgets that when the lumberman invests his thousands and perhaps his millions of dollars in the products of the forest it is only by making this product marketable that he can hope for a paying return for his investments. And so far as forestry regulations exact unfair restrictions in the cutting of the standing timber in that measure the considerations of commerce are interfered with.

An indication of the interest lumbermen manifest in the present movement of the government is shown by a letter from Messrs. McLachlin Bros., of Arnprior, who are owners of extensive timber limits in the vicinity of the proposed reservation. They have asked the Commissioners that the boundaries of the park be so arranged as to take in a number of the townships over some of which they hold the right to cut. The government have included two of these within the proposed boundaries. The land set aside by the government for the Park belongs wholly to the Crown and as a consequence there are no vested or private interest in it to be bought up or dealt with.

The field will prove a satisfactory one for experiments in forestry, and lumbermen, no doubt, will watch with interest, the development in this direction.

DISCRIMINATION IN RATES.

The millmen in the vicinity of Fredericton, N.B., are complaining over an increase made by the Canadian Pacific road in the rate on shingles to American points, in which it is claimed that there is discrimination in favor of other places. The rate from St. John, St. Stephen and St. Andrews is 33½ cents; from Fredericton it is 40 cents, though the distance is no greater.



A RIVERMAN from the Georgian bay district says the water is running so swiftly in the Wahnapiatae that the logs go down stream with almost the rapidity of a locomotive under full head of steam. The American firms have nearly all their tugs employed in towing the logs across the Georgian bay to the different ports on the Michigan side. * * * *

A prominent Ottawa lumber agent said that he thought a cut of 250,000,000 feet at the Chaudiere mills for the season would be rather below than above the mark. Asked what he estimated the money value of the output at he said he believed it would reach \$3,000,000, as the lumber cut would on the average bring \$12 per thousand. Asked about how the "drive" was coming out he said everything was doing well. Messrs. Shepherd, Morse & Co. had an alligator tug on the Kippewa and the way this tug brought out a tow of logs astonished all the old time river men. The tug, as its name indicates, works almost as well on land as on water. It is worked by a cable wire and can go across a portage at a fair rate of speed. In the water, when the cable is not used, the tug can ply her paddles and steam along at the rate of six miles an hour. * * * *

In the opinion of Mr. Henry Gannett, a member of the geological survey of the United States, there is no fear of the forests of that country giving out soon. He says: There is to-day nearly if not quite as great an area of woodland in the United States as when the white man set foot on our shores. There are not so many square miles of merchantable timber now, as then, but the territory occupied by growing trees is about as extensive as it was 400 years ago, and these trees will in time grow to size suitable for the production of lumber. Some of Mr. Gannett's statements are quite inconsistent with the general belief that American forests are giving out. He says, for instance, that only about 270,000 square miles, or less than one-tenth the area of the country, is artificially cleared land, while to offset this loss there has in recent years been great extension of wooded land in the prairie states as well as in some of the natural tree-growing states. A table is published showing the total area and the wooded area of each state, the figures having been obtained from reports of the census and agricultural department, from official surveys, and in a few cases from careful estimates. As a grand result it is shown that the wooded area in the United States, excluding Alaska, is nearly 1,113,000 square miles. * * * *

It may be that there will be a strike among the mill hands of the Chaudiere within a day or two. The mill-hands are asking for a ten-hour day and a short time since addressed a circular to the mill-owners making this request, and asking for a joint meeting for Saturday, May 27th. The mill-owners made no response to the circular, and the day named has passed without any meeting being held. It is certain that the mill-owners have determined to resist the demand. A member of the firm of J. R. Booth & Co. stated that if a strike did take place it was very probable that the mills would be boarded up for the season rather than accede to the demands of the men. The only way in which the strike would affect the mill-owners would be that they would have a smaller quantity of dry lumber for shipment next season. Mr. F. P. Bronson, of Bronson & Weston, when spoken to regarding the matter said: "Let the men strike. We can get along without them. If they really want to strike we will not prevent them." Mr. Robt. Hurdman, of the firm of Buell, Hurdman & Co., stated that he did not fear a strike. Their mill was now shut down for want of logs, and as it would be some days before they would get them, it did not matter to his firm whether the men struck or not. The mill-men will hold a mass meeting to consider the situation. With the record of the strike of 1891 yet fresh in the memory of

Ottawa mill-men, and remembering the distress that followed to wives and little ones, as a result of that month's cessation from work, am I not doing a kindness to fellow workmen, when I say: "Boys, go it slow?"

* * * *

A cablegram to a leading lumber firm here from their representative in great Britain does not point to a satisfactory state of trade across the Atlantic. The correspondent states that in both lumber and deals sales are very dull and hard to negotiate. Great difficulty, he says, is experienced in obtaining the advanced prices which have been paid for this year's cut. Consumers, he says, in England, are doing very badly, and there is much financial uneasiness. Shippers express themselves as being unwilling to purchase further ahead unless the outlook very materially changes, which he believes is most improbable. The trade on the east coast and Bristol channel has been affected by the recent strikes. The union men who were the original strikers now desire to return to work if the non-union men who were brought in from the country to fill their places are discharged, which the employers are refusing to do. It has been hoped, he says, that a new avenue of trade would be opened up in the French market, but the excessive import duties imposed under the new French tariff precludes the possibility of developing the lumber trade in this direction. The recent heavy failures among the Australian banks have caused considerable alarm among shippers, who are on this account inclined to be more cautious than before.

* * * *

A correspondent, of Saginaw, Michigan, says: "The apprehension exists to quite an extent that the exceptional activity that has characterized the lumber business the last few months will suffer a reaction before the manufacturing season closes. This feeling no doubt arises from the disturbance in financial circles, and is, perhaps, fostered by the bear element, or lumber buyers, who regard prices as having reached a higher level than the conditions of business will warrant. In other words that prices in manufacturers' hands are too high to enable buyers to handle the stock at a profit. The tightening of the money market and difficulty in obtaining discounts, except on first-class, gilt-edged paper, also exerts an influence favorable to the apprehension referred to. A contraction of credits and disposition to conservatism in financial circles generally affect most branches of the industry, and should these result in a contraction in building trades with a consequent falling off in the demand for lumber it would naturally affect prices. Some think that such large quantities of lumber have been contracted for, and the demand is still so active that no reaction is likely to be felt in time to affect this season's output. There is general complaint of dull business and banks are chary in discounting accommodation paper."

* * * *

The capacity of the coast mills of British Columbia is placed by Mr. H. H. Spicer, the large shingle manufacturer, of Vancouver, at 740,000,000 feet annually, but the annual cut is not anything like this amount, and a large amount of milling capacity is standing idle. Any one of the large mills could cut enough lumber to supply the home trade, and the population east of the mountains is so small that only a limited trade can be done in this direction. The duty prevents business with the States to the south and southeast. The mills have to depend largely upon the export trade to Australia, the west coast of South America and China and Japan, and this export demand has not been nearly great enough to keep the mills going. The two largest mills in the province are closed down entirely. Some lumber has been sent round the Horn to England, and a vessel has recently loaded for Montreal, via the Horn. But the distance is so great that the mills cannot expect much trade from the Atlantic side of the continent, while railway rates across the continent are out of reach for any considerable trade via rail. The completion of a ship canal across the isthmus between North and South America, connecting the Pacific and Atlantic oceans, would, said Mr. Spicer, add millions to the value of British Columbia coast timber, as it would enable British Columbia lumber to compete freely in Atlantic coast markets, both in America and Europe.

NOTES AND QUERIES

Questions and answers are inserted under this head free of charge and all are invited to avail themselves of this column. Correspondents need not give their own name for publication, but it must be made known to the editor. Anonymous communications will find space in the waste basket.

No. 36. BUYING A BOILER. The advice of the MILLER is not unfrequently asked concerning the buying of a new boiler. Consult a firm of known ability and character is advice we never fail to give. There is no economy in the simplest purchases of life in trying to save a few cents in buying the cheap and nasty. But the disaster that may befall unwise buying is not the same in all cases. Where a boiler is needed is a case where it is difficult to say what may be the outcome of "a penny wise and pound foolish" policy. A writer in the Safety-Valve puts the matter tersely in these words: "If you want a brick wall built or a well dug, it's a good plan to advertise for bids and let every mason and well-digger in town compete. The most irresponsible and conscienceless boiler-maker is sure to get the contract, and you'll have no end of trouble with your new boiler. A little consideration will assure you that boilers can not be made for less money than is asked by those who make boilers of standard quality, and who could not afford to deliver a boiler of poor material and faulty construction, because it would injure the reputation of their work and workmanship."

No. 37. CHALK AND GREASY BELTS.—There are many places where leather belts are used so greasy from drippings that can not be well prevented, from flying oil and spray, or from other unavoidable causes, that they become thoroughly saturated with grease, so much so that they become very inefficient and practically useless unless the grease is washed off or otherwise removed. It is said that a belt so disabled can be best renovated by the use of common chalk. Take a large piece of chalk that will cover the width of the belt, and hold it against it while running. The chalk takes up the grease as it is worn off by the friction of the belt. After chalking awhile, take a scraper and hold it against the belt in such a manner as will scrape the accumulated mixture of chalk and grease all off, and then renew the chalking operation, and keep repeating until the belt is in good working condition, when the cleaning process can be discontinued until it becomes dirty again. This is a simple remedy, and is by some considered the best way for keeping greasy belts clean and in good working condition.

No. 38. THINK BEFORE YOU ACT.—Not a month goes by that we are not reminded, as we worry through some hundreds of newspapers, from all parts of the country, of the many accidents occurring in mill and factory—solely through carelessness. Scores of these are so serious that we are surprised that the carelessness continues, but no sooner is warning sounded on one hand than an accident occurs on the other from almost a like cause. We are moved to write in this strain by a letter from a correspondent detailing and bewailing, as well he might, an accident, the result of simple carelessness, that had come immediately before his notice. To further illustrate what we have been saying, we shall quote here from a forceful paragraph that has come to our notice in a technical exchange. It is this: "Prompt action may avert a catastrophe, but thought as to cause and effect must come a little ahead of action, otherwise more damage than good may follow. I have in mind a young oiler in an electric light plant, who, being in a hurry to fill his oil cups, that he might be relieved for supper, grabbed an oil can in each hand and inserted the spouts on cups with different bearings at the same time. He immediately lost all appetite for supper. Another case, in which a poor fellow lost his life. A heavy belt commenced to slip. He grabbed a can of resin, and, running under the belt threw a great quantity of the dry resin, some of it in large lumps on the belt, which resulted in throwing the belt from the pulley, which struck him on the head and threw him into the fly-wheel of the engine." Care, care, constant care, that eternal vigilance that we sometimes talk about, is the only recipe against a continuance of these sad casualties.

DAMPERS IN STACKS.

BE careful of dampers in stacks; use them with care; be sure they are open before starting the fires. The greatest care should be exercised when light fuel is used, for to close a damper with large body of fuel on grate bars will cause flame to impinge on bottom over same, thus concentrating heat on one point of boiler. Many good boilers have been bagged and burned from the same cause. Always try and regulate draft by damper in bottom or front.

McCaffrey's planing mill at Huntsville, Ont., was burned on 31st ult. Loss, \$3,000; no insurance.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE sensation in lumbering circles the past week has been the unusual rising of the Ottawa river. At this writing it is difficult to tell what the outcome will be. Already the water has reached the highest point in seventeen years, since 1876, the year of the great floods. What is being remarked by those who know Ottawa well is that the increase is not gradual as has sometimes been the case, but the rise is in leaps and bounds. How much further this increase is to continue is the alarming aspect of the case. The fear is that the terrible record of the flood year will be rivalled unless there is a speedy cessation of these rushing, bubbling, troubling waters. Lumber interests are being affected in various ways. A boom of the Upper Ottawa Improvement Company has been carried away, and seventy thousand logs sent adrift. J. R. Booth has been obliged to close down his mill for the reason that the water has risen so high logs can no longer be gotten to the saw. Buell, Hurdman & Co. will likely have to close down if the waters continue to rise. Eddy's dam is in danger of being swept away, though they have taken the precaution of drawing a lot of heavy stone to place there. The water has risen so that the logs separating the government slide for square timber for McKay's mill race and the other slides for logs have become covered, and there is great danger that they may break at any moment. The possibilities of serious trouble are indeed many. It is a case of wait and hope for the best.

INDIFFERENT LENGTHS.

A quantity of logs, which have lain all winter above the Chaudiere Falls, enclosed in a boom, broke away on Queen's Birthday, and for a time blocked an excursion party by a local steamer. The logs number some hundreds and belonged to the Hawkesbury Lumber Company, with a few the property of Mr. J. R. Booth.

R. G. Dunn & Co., in their latest trade report, uses these words in regard to the lumber situation in Ottawa: "This year's lumber season has opened most auspiciously, extremely large sales at good prices having been already reported, especially in square timber, and the opinion has been expressed that if present prospects are realized it will be one of the most successful seasons on record."

An awkward mishap occurred at W. C. Edwards & Co.'s mill at New Edinburgh a few days ago. Shortly before six o'clock, the hour for stopping work, the endless chain, which is used to haul the logs up from the Ottawa river a height of about fifty feet, broke in the centre, and slid down, falling far out into the river. A good deal of difficulty is being experienced in getting it out again owing to the weight of the chain and the condition of the river with sawdust.

A large cargo of deals calling for the use of six barges belonging to the Ottawa Forwarding Company have gone forward to Montreal, thence to be shipped to the old country. The deals are of fine quality and were sawed last year by Perley & Pattee. As a barge carries some 750,000 feet of lumber, it will be seen that nearly 5,000,000 of feet will go by these six barges. Besides this shipment Mr. J. R. Booth was loading a number of cars with dry lumber for the American market.

OTTAWA, Can., May 29, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE Royal City Planing Mills Co. are at present cutting a cargo of lumber which, without exception, will be the finest ever shipped out of British Columbia. The cargo is destined for France, and the ship which will carry it has been chartered and will arrive in port early in July to load. Every stick will be seasoned and free from knots, sap and shakes—in other words, every piece in the cargo will come under the head of "specially selected." This will be the first export of lumber from British Columbia to the French republic. This company is also making some important shipments to Ontario and Quebec. A recent shipment to Toronto consisted of 21 sticks of lumber 12 inches square and 69 feet long. The timbers were loaded on two cars, and their beauty even in Westminster, where such sights are not rare, attracted considerable attention. Several car-loads of heavy canal timbers are to be shipped to Montreal. Nor do the shipments of this Company end here. They are filling an order for St. John, New Brunswick, of extra large spar timber. Each stick is $22\frac{1}{2} \times 24$ inches, and 70 feet long, all free from knots or flaws. The logs from which these splendid sticks will be made have been cut at the company's logging camp, Mud Bay, and will be brought by rail to Port Kells and towed from there to the city. Several carloads of smaller timbers for the same destination have gone forward during the last few days.

COAST CHIPS.

The N. P. steamer Victoria left Victoria for the Orient on 11th inst, taking 350,000 feet of lumber for Yokohama.

The saw mills are all busy and expect to be for some time. Their orders for salmon cases are larger than they have ever been, as a large run of fish is confidently expected.

The continued wet weather is interfering with their getting logs fast enough to keep running, but the last few days have been very fine and it is to be hoped the summer has arrived.

The case of Scott vs. Hastings Saw Mill Co. has been decided against the Plaintiff, and the company absolved from all liability in the matter. I mention this because in a former letter I said that Scott had secured damages.

The shingle business is picking up, and shipments are steadily increasing. Messrs. W. L. Johnson & Co., of Gambler Island, have shipped 1,000,000 feet to Victoria, and 160,000 to Bowmanville, Ont. This firm had 20 carloads sold to a Chicago house, and was commencing to load the first car at Liverpool, when the shingle combine on the United States side of the line went to pieces, and the order was cancelled forthwith. There is a duty of 30 cents per thousand on shingles going into the United States. Were this removed, Mr. Johnson says, the shingle business would soon be booming in British Columbia.

NEW WESTMINSTER, B.C., May 22, 1893.

NEW BRUNSWICK LETTER.

[Regular Correspondence CANADA LUMBERMAN.]

RECENT legislation may have an important bearing on the future of the lumber industry of this province. The local legislature, at its late session, passed a bill relating to the leasing of crown timber lands. The term of ten years, the length of the present leases, expires in August. The new bill endeavors to ward off possible speculation in timber lands by providing that a certain average cut must be made by all lessees in respect to all lands held by them. In another section of the bill power is given the governor-in-council to increase at any time the rate of stumpage and mileage on such lands. This is supposed to be a safeguard against possible monopoly. Provision is made in the closing section of the bill for the offering of the leases at public competition, upon condition that they be renewed annually at the pleasure of the government for a term, not exceeding 25 years. In the course of the debate on the bill the leader of the government stated that there were not less than 2,000,000 acres of splendid timber lands still unlicensed and unbroken. With some the opinion prevails that this legislation may lead to a strong lumber combine, and by bidding in the best of the new lands and controlling the leases it would completely shut out small operators. Under the present system of only ten-year leases 1,250,000 acres are held by ten lessees.

Another piece of lumber legislation proposed by the Legislature is a bill admitting of the incorporation of companies for the purpose of clearing out rivers, lakes and streams, to facilitate the driving of logs; such companies to have the right to charge tolls on the lumber drives down the streams cleared by them. The theory is that were the same parties, who might buy up the principle leases, to also control the movement of the logs in the stream, a remarkably strong compact would be made.

ST. JOHN, N.B., May 27th, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

SPECULATION is somewhat active as to the future of prices. There are those who hold to the view that prices have reached the maximum and that it is not unlikely that before long a shrinkage may be expected. In one way it is natural that this view should prevail. Prices for pine have stiffened to so marked a degree in a short space of time that as is the case with a rapid advance in any line of stocks, there is always fear of a rebound sooner or later. And general experience shows that the rebound is almost certain to come, and not unfrequently more sudden than is expected. But there is the contrary fact that stocks continue about as scarce as ever. In fact stocks are just so low that until the new cut comes from the mill, which will be some time yet, shipping interests for the time of the year will fall a good deal below the average. Moreover, the demand keeps up and it is hard to find anyone who does not consider white pine a profitable article of merchandise to hold.

DESTRUCTIVE FIRE.

It is some time since this lumber centre has been devastated with as destructive a fire as broke out here on 21st inst. A little spark and a strong southwest gale did the work. The spark is said to have started from the chimney of the Briggs & Co.'s factory, on what is known as the Middle ground, and was carried to the dismantled mill plant of Sample & Camp, on the

docks, where there is a number of piles of lumber. Here it found rich food, and in the twinkling of an eye the single spark had grown into a roaring mass of flames, and started on its mad career. Thence the flames leaped to the east side just below Bristol street and north of the City Hall, where are located a large number of buildings, including hose house No. 6, J. E. Winkler's ice houses, eleven residences on Tilden street, and on both sides of Washington avenue down to Holden street were quickly licked up. Then the sparks were carried across the old bayou into the premises of the George F. Cross Lumber Co. The planing mill, lumber in the yard, and a dozen tenement houses melted like snow. Next came the Allington & Curtis Manufacturing Company's extensive plant, and Passott's old soap factory, all of which were wiped out. Here the fire struck Jefferson avenue, and in an hour some of the finest residences in the city were in ashes. The flames made a clean sweep north to Emerson street, where the fire continued eastward, south of and along Emerson street, toward the city limits. It cut a wide swath on Owen, Howard, Sheridan avenues, and other streets east. The Orphan's home succumbed early, but the inmates were all removed to places of safety. The patients were all removed from St. Mary's hospital which was in extreme danger for a time, but was saved. The fury of the gale carried the sparks long distances, and at six o'clock the fire had reached the planing mill factory and lumber yards of E. Germain, which were destroyed, as well as a large number of dwellings in that section of the city. The scenes witnessed during these two hours of wind and flame are beyond the power and pen to adequately portray. The excitement was at fever heat, and in many instances houses caught fire and were destroyed before the occupants were hardly aware they were in danger. The loss is estimated at a million and a half dollars, with an insurance of about one-half. Fully 1,000 men employed in the factories burned are out of employment, and hundreds of families are homeless, as about 300 buildings were burned. Several deaths by burning have taken place.

BITS OF LUMBER.

Nearly all the mills of the Huron shore are in operation.

The tug Owen, owned by Gilchrist & Fletcher, of Alpena, will tow log rafts from Georgian bay to Alpena.

Alger, Smith & Co. have a crew of men under R. J. Anschutz, of Tawas, looking pine land on the iron range near Duluth.

W. W. Sutherland expects to handle 15,000,000 feet of hardwood lumber this season. Hardwood lumber is in active demand.

Captain Ryerse, of the tug Saugatuck, has contracted to tow 10,000,000 feet of logs from Georgian bay to the Cheboygan Lumber Company's mill, at Cheboygan.

The value of the products of planing mills, sash and door and box factories in Saginaw last year was \$5,210,000, employing 2,300 men, and paying in wages for the year \$812,000.

It is not altogether certain that Ross, Bradley & Co., of Bay City, who were supposed to have completed arrangements to remove to West Bay City, will actually make the change. Certain inducements are being held out to them to remain at the home point.

Sibley & Beringer have 12,000,000 old logs in the Ocqueoc, which were hung up last season, but are now out and will be taken to Cheboygan to be manufactured. They have also 8,000,000 to come from Georgian bay to Tawas, and will probably purchase 10,000,000 to 15,000,000 more.

Lumbering operations have suffered severely from the high state of the water at Menominee. Never in its history has the Menominee river been so high. The logs are piled in one solid jam from 10 to 30 feet high and extend up the river from the upper dam a distance of six and a half miles. In the jam there are 200,000,000 feet of logs.

SAGINAW, Mich., May, 27, 1893.

SPANISH RIVER.

[Special correspondence CANADA LUMBERMAN.]

ACTIVITY is beginning to show itself in lumber in this district. Logs are coming in fast to the Spanish boom. The water being a good height this spring it is anticipated that all logs will be easily got to the boom. About two hundred million feet are expected to go through the Spanish river boom this season.

The Hull Lumber Co. are building a log railroad on their berth and will operate all summer.

Culter & Savidge, who are operating on the Spanish river, are erecting a sawmill about six miles west of here on the site of the burned mill, which was at one time used by the Bowshell Company.

Men for the drives are being paid higher wages than last spring.

The opinion prevails in this district that the long talked of deal between the Cook Bros. and Alger, Smith & Co., of Michigan, for the purchase of the berths, sawmill, and other property of the former, at a sum placed by some as high as two million dollars, is finally off. The American firm had as many as forty men at one time in the woods looking over the pine.

SPANISH RIVER, Ont., MAY 26, 1893.

HONORA.

[Special correspondence CANADA LUMBERMAN.]

LUMBERMAN readers may not know the name Honora as a lumber town. We are just twelve miles from Little Current. Large quantities of cedar are found at this point, which are used for ties, telegraph poles, paving, etc. Probably the largest quantity of cedar is being taken out by Mr. Jno. Collins, foreman for Dr. W. L. Herriman, of Lindsay. The stock has been purchased by Captain S. Fraser, agent for the Cleveland Cedar Co., who have secured most of the season's out-put of cedar on the Island. The same concern have secured the option until June 1st to buy the property, consisting of 5,000 acres, belonging to Dr. Herriman, which comprises nearly all the cedar, pine and pulpwood in this vicinity; the saw mill, shingle mill and docks, together with four improved farms, are also included in the option, and if the Company purchase they purpose manufacturing shingles here extensively for the American markets.

Loading commenced here about the 15th inst., and most of the timber is being sent to Chicago.

Capt. Fraser is loud in his praises of the quality of cedar found in this locality.

Among others engaged in the cedar business at this point, besides Dr. Herriman, are Wm. Needler, L. W. Ferguson, Irving & Co., and Wm. Idle.

It is expected that the sawmills will be idle here this season, as the entire stock of logs has been purchased by J. & T. Conlon, of Little Current. The new shingle mill of this firm is ready for operation.

HONORA, Ont., May 23, 1893.

PUBLICATIONS.

It rarely falls to the lot of any journal to achieve the marvellous success that has fallen in the lines of the Ladies' Home Journal, of Philadelphia. This monthly has to-day an actual circulation of nearly one million, won solely on the merits of the journal itself. The editor Mr. Edward W. Bok is to be congratulated.

The latest arrival in the arena of trade journalism is The Canadian Engineer, published in Toronto and Montreal and devoted to the mechanical, mining, marine, locomotive, sanitary and other branches of the engineering trades. The promoters of the new paper have given us a bright, newsy journal and in its special field it ought to find general favor.

The Cosmopolitan, of New York, scores a success in reproducing in its May number, almost simultaneously with the daily papers, an elaborate description of Professor Gray's marvellous invention, the Telautograph, which reproduces the handwriting, or the work of the artist, simultaneously, thousands of miles distant from the place where the writer or artist is sitting. The number throughout is very attractive. Mr. Howells' purpose in "The Traveller from Altruria" is, month by month, becoming more evident, and is now receiving wide attention at the hands of the critics all over the world.

"The Land of the O-O" is a somewhat nondescript title that Mr. Ash Slivers, sr., gives to his book of travels that has recently been published by the Cleveland Printing and Publishing Co., of Cleveland, Ohio. Mr. Slivers, when he is addressed by his business associates, is known as Mr. C. C. Burnett, president and general manager, of the Sturtevant Lumber Co., of Cleveland, and "The Land of the O-O" is a description of a holiday trip in the Sandwich Islands. The ordinary man may experience some difficulty in establishing a connection between literature and lumber. The two vocations hardly run in parallel lines, and yet when one has perused Mr. Burnett's literary effort we think that they will agree with us that he knows how to write an interesting and attractive book. The style is graphic and at times eloquent, and shows a very thorough acquaintance with current literature, indicated by not unfrequent and apt quotations or literary reference. Mr. Burnett evidently enjoys travel and in his visit to Hawaii he has found much of interest and worthy of note. A quiet humor runs through the whole work, adding lightness and readability to the book. Fifty well-executed illustrations adorn the book. The typography of the book is first-class and it is bound in tatty cloth, level edges.

THE NEWS.

ONTARIO.

—Geo. Cornack, Whitby, has sold his lumber yard to The Jackson Co.

—Business is brisk at the sawmill and stave factory of D. S. Clemens, Winterbourne.

—The McKechnies, of Durham, are rebuilding their sawmill at Glenroaden, recently destroyed by fire.

J. J. McNeil, Mayor of Gravenhurst, is to erect a new saw and shingle mill at Edginton, near the line of the Parry Sound Railway.

—The Rathbun Company, of Deseronto, have received an order for 5,000 doors from England. They have also been making shipments to Africa and Australia.

—A correspondent at Hepworth, Ont., writes: "Things in the lumbering line are in very good shape in our district this season, so far at least as prices are concerned."

—The estate of Thos. Green & Co., of London, is to be wound up, and the planing mill, employing thirty hands, has shut down. The establishment is to be sold in accordance with the will of the late Thos. Green.

—The lumber combine of the Lake of the Woods saw mill men is said to be completed with the Keewatin Lumber Company out of the deal. D. C. Cameron is to be general manager, and J. W. Savage, whose name was mentioned in this connection, is to be one of the directors. The central offices will be located at Norman, the store now occupied by Messrs. Cameron & Kennedy to be taken over and adapted to that purpose.

—The assignee to the estate of the Casselman Lumber Co., Ottawa, has notified the creditors that a dividend of 2½ per cent. will be paid. The claims filed amounted to \$94,983 and the dividend on this after retaining \$728 for legal and other fees amounts to \$2,374. The largest creditors are the Bank of Commerce, J. G. McKenzie & Co., Montreal; The Rathbun Lumber Co., Deseronto; Frothingham & Workman, Montreal; D. McCormick, Montreal. The estate has still on hand some 40 odd cottages, and about 60 village lots in the village of Casselman.

MANITOBA AND THE NORTHWEST.

—John Weibe, Greta, Man., lumber, has assigned.

—John K. Ross, lumber, Austin, Man., has sold out to Bright & Wheeler.

—J. S. Edmonson, lumber, Pipestone, Man., is reported to have sold out to Crawford & Co.

QUEBEC.

—A boom belonging to Lindsay & Bailey broke under the waves at Aylmer a week ago, and an immense quantity of logs were swept recklessly over the lake and down with the current towards Ottawa. The lake presents a desolate scene, being strewn for several hundred yards with wreckage.

—Joshua W. Collins, who has carried on a lumber and commission business in Montreal for several years, chiefly in American woods, has assigned. His assets are small and liabilities comparatively large. He has been going behind for some time and is reported to have kept quite a line of notes under discount. The direct liabilities are \$6,700 and indirect \$7,800. He owes the Kentucky Union Lumber Co., Clay city, Ky., \$1,529 and Irwin & Hascall, Goshen, Ind., \$991.

NEW BRUNSWICK AND NOVA SCOTIA.

—About 40,000,000 feet of logs and cut lumber will come down the Restigouche this spring. The logs are largely cedar.

—In Campbellton, N.B., the old firm of A. McKendrick & Son, has dissolved partnership, the senior retiring from business. A. D. McKendrick, jr., has formed a partnership with Henry Connacher, under the style of Connacher & McKendrick.

—David Richards' large shingle and clapboard mill is nearing completion. There is now in Campbellton and vicinity six large sawmills and quite a number of smaller ones. They have a large stock to manufacture this season. Lumbermen are now up the river bringing on their drives which will be the largest for many years, last year being a favorable one for them.

FIRES AND CASUALTIES.

FIRES.

Bull's sawmill at Ormsby, Ont., was burned on the 27th ult. Loss \$5,000.

—The saw mills of Jas. Stark, of Paisley, Ont., were destroyed by fire on the 21st ult. Loss about \$3,000.

—The stave and hoop mill of J. B. Coates, at Blenheim, Ont., was destroyed by fire on 22nd ult. About fifty hands were employed. Loss, \$2,500; partly insured.

—Wagner's saw mills, Port Elgin, Ont., were totally destroyed by fire on 26th May. The machinery was new. Loss on plant \$3,000.

—Terrible forest fires are raging in the vicinity of Cadillac, Mich. Margridge's saw mill was burned, and the lumber camp of Louissand's was also destroyed; four men burned to death and eight others missing.

—Lumber to the value of \$5,000 was destroyed by fire on the docks of Fassett & Bellingier, Tonawanda, N.Y., on 26th ult. Every clue thus far, it is said, points to the fact that the lumber shovers are responsible for the fire.

Slavenwhite Bros.' new sawmill at St. Margaret's bay, Halifax county, N.S., with all the machinery and a quantity of finished lumber, were entirely destroyed by an incendiary fire a week ago. Last September the firms mills were set on fire and burned, and now those that replaced them have been lost. No insurance.

CASUALTIES.

—Henry Fisher had his hand badly cut while running the saw in the mill at Summerhill, Ont.

—A man named Fleury became entangled in some belting in a Rimouski saw mill a fortnight ago and was instantly killed.

—Andrew Cadieu, of Penetanguishene, was killed in the mill of the Georgian Bay Lumber Co. a week ago by being caught in a pulley.

—John Watson, of Thamesford, Ont., while skidding logs at the Ferguson mill, was kicked by a horse near by, and seriously, if not, fatally injured.

—Frank Burd, a filer in the sawmill of the Parry Sound Lumber Company, had his left arm completely cut off whilst filing on the large circular saw.

—Frank McLeod, of Tilbury Centre, Ont., met his death at Sicklesteel's stave mill, at McGregor, by being caught in a belt and was dragged under the shaft.

—Charles Collin, employed in a Calgary lumber camp, was thrown from his horse the other day, and his foot catching in the stirrup, he was dragged to death.

—W. D. Ritchie, who has been in the employ of the Bronson & Weston Lumber Co. for the past thirteen years was drowned while attempting to break a gang of logs.

—James McMullen, of Ironsides, Que., was drowned at Chilesen two weeks ago. He was on his way to Gilmour & Hughson's Gatineau mills, where he had secured work.

—While examining a new planer in Bettes & Chaffey's Mill at Bracebridge, Ont., Geo. Neal got his hand too close to the under cylinder and had it so badly cut and crushed that it had to be amputated at the wrist.

—While working at a lath machine in the Pearce Co.'s sawmill at Marmora, Ont., William Southworth, a boy 14 years of age, was struck by a piece of tin, producing internal injuries, from which he died within 24 hours.

—While cutting steel at John Bertram & Sons' tool works, Dundas, Ont., Mr. Millington was struck on the chin by a piece of hot steel weighing three or four pounds, cutting quite a large gash and burning him severely.

—Lindsay Morgan, of Osnabruck Centre, was instantly killed a few days ago while working with a circular saw. The saw while running at a high rate of speed broke and flew from its fastenings, struck Morgan, cleaving his head, neck and chest.

—A despatch from North Bay says a team of horses belonging to Mr. John Mackey, of Eau Claire, were hauling a car load of lumber from the mill siding to the main line, when the car started rapidly down grade, and the driver being unable to get them out of the way, they were crushed to death between the car and another standing near the main line.

—A sad accident occurred at Kleinburg, Ont., by which a well-known farmer by the name of John Kirts lost his life. He was waiting at Curd's sawmill for a load of lumber and on going into the mill saw the tail Sawyer removing a heavy slab which had just been cut from the slab. Mr. Kirts at once stepped forward to assist the man, and in so doing the slab caught the saw and Mr. Kirts was thrown against the saw. One arm was severed and a terrible gash was cut in his side. He expired almost immediately.

PERSONAL.

Mr. George J. Cook, president of the Cook Bros. Lumber Co., has been elected a director of the Bank of Toronto.

Mr. R. R. Dobell and Mr. R. M. Cox, of Liverpool, Eng., British lumbermen, well known to the Canadian trade, are at present in this country.

TRADE REVIEW.

Office of CANADA LUMBERMAN,)
May 31, 1893.)

THE GENERAL SURVEY.

ACTIVITY is general in Canadian lumber centres, large and small. The work of the drives is being pursued with comparative ease, and there are few mills that are not nicely into the new cut. In the Ottawa district two or three mills have experienced some difficulty in running because of the unusual rising of the Ottawa river, but this trouble will, at the worst, be only temporary. Those who are believed to know say that 500,000,000 feet of timber have been cut on the Ottawa and its tributaries during the past winter, and as there is little likelihood of any logs being tied up, the cut of lumber will necessarily be large. A considerable portion of this cut is already contracted for, making the danger of over-production this season not very likely. Ottawa lumbermen have further guarded against a possible glut in their decision not to run night watches, believing that day work at the mill will be sufficient to meet all requirements. One cannot but commend this decision, for despite the healthy condition of the lumber trade at present, signs are not wanting of possible depression in the future, and few things would hasten this more than an excessive cut of the mills.

In the northern lumber territories the mills are busy. Of course a large quantity of logs will be towed to the American side, but it does not seem that this will in any serious measure curtail immediately the operations of the local mills.

The trade in New Brunswick are in better feather than they were to be found a month ago. There, as in Ontario, the drives are coming along in splendid shape and an active season's sawing is expected. Farnworth & Jardine, of Liverpool, Eng., in their current wood circular make this remark of New Brunswick and Nova Scotia spruce deals: "There has been no import during the month; the deliveries have been fairly satisfactory and the stock is now in a moderate compass; still, values rule very low and are difficult to maintain." A number of ships are loading this month at Miramichi and West Bay and other ports for the United Kingdom.

A British Columbia correspondent writes that trade is improving on the Coast. A satisfactory local trade is being done, and shipments for export are fair. Among the vessels loading at B.C. ports this month is one for Marseilles, France, which will be the first shipment of British Columbia lumber to that port. The Heinrich is taking a cargo for Hamburg, Germany, being the second ship ever known to convey lumber from B.C. to that port.

Ontario is contributing a fair share to the lumber trade of the country. Nothing very large is to be noted but there is no reasonable ground to complain of dullness. In building operations in Toronto the situation does not change very much. Building, so far as it affects lumber, is quiet.

UNITED STATES.

The stringency in financial circles in the States, resulting during the month in several large failures of commercial and monetary institutions, is not without a depressing influence on lumber. It is only the general strength of the lumber market for the past year, and the especially bright outlook this season, that has averted more serious trouble at the present time.

Commerce is an extremely sensitive plant and calamity cannot befall it at any one point without the whole tree feeling the effect. Lumbermen are scanning closely the accounts of customers, and behind them bankers are watching with all their native astuteness the applications made to them for credit and the securities on which this credit is to be based.

But this much recognized it is within all the facts to say that the lumber trade of the present is in an encouraging shape. The demand is satisfactory at all leading centres. Not in all places, nor in every line, is there equal buoyancy of trade, but taking the broad field over business is good. Building operations in New York have not proven as favorable for the consumption of lumber as had been expected earlier in the season, yet

a good trade is being done; spruce is least active; while white pine holds its own in price and demand. The cut of Saginaw mills is contracted for months ahead and lumbermen will not budge from the highest prices for any desirable grade of pine. At Albany and Oswego reports reach us of large activity. In the south there is a slight lull in trade.

Sufficient unto the day is the evil thereof—perhaps. The immediate present is bright, but the long-headed lumberman will nevertheless not forget that there are possibilities of breakers ahead, and be guarded and careful accordingly.

FOREIGN.

With the lumber trade abroad it is a good deal a case of hoping against hope. Improved conditions no sooner seem to become apparent before the sky is again clouded and trade continues as flat as ever. In their April wood circular Denny, Mott & Dickson, of London, Eng., announced "a perceptibly better tone in the trade." The May circular of this firm tells us that the improvement felt in April did not after all develop. And so British trade in particular has run for many moons. The contents of a cablegram to a Toronto lumber firm, which is published on the ELI page, reveals a more than ordinary depression in the lumber trade in Great Britain. Information that we have from other shippers confirm in a large measure this view of the situation, conditions that should be taken as a flag of caution by those most interested. There are no indications of improvement in the Australian lumber trade. The demand has been extremely poor, and business on the spot has only been in a few lines. C. S. Ross & Co., in their report, say: "Traders generally fear that the coming winter months will bring with them a great reduction in the volume of business." South American trade keeps quiet, but with reasonable hope of an early improvement.

HARDWOODS.

The volume of trade is fair and prices are well maintained. In the British markets, where lumber generally is dull, Farnworth & Jardine remark, in their May circular, of Canadian hardwoods: "Elm has been more enquired for, but with the stock quite ample. Ash has moved off freely; prices are steady and the stock is moderate. With oak it is difficult to maintain prices owing to the low values now ruling of United States oak." The hardwood trade in the States is reported to be slackening off, and trade is expected to be quiet for some time. In our own country hardwood men speak encouragingly of present trade. Dry stocks are short in the most desirable lines. Dry basswood is so scarce that manufacturers are being forced to use green. The supply of birch is hardly equal to the demand. Two-inch maple is in strong demand.

TORONTO, ONT.

TORONTO, May 31, 1893.

CAR OR CARGO LOTS.

1 r-4 in. cut up and better	33	00	36	00
1 x10 and 12 dressing and better	20	00	22	00
1 x10 and 12 mill run	16	00	17	00
1 x10 and 12 common	13	00	14	00
1 x10 and 12 spruce culls	10	00	11	00
1 x10 and 12 mill culls	10	00	11	00
1 inch clear and picks	28	00	32	00
1 inch dressing and better	20	00	22	00
1 inch siding mill run	14	00	15	00
1 inch siding common	11	00	12	00
1 inch siding ship culls	11	00	12	00
1 inch siding mill culls	9	00	10	00
Cullscantling	8	00	9	00
1 r-2 and thicker cutting up plank	24	00	26	00
1 inch strips 4 in. to 8 in. mill run	14	00	15	00
1 inch strips, common	11	00	12	00
1 r-4 inch flooring	15	00	16	00
1 r-2 inch flooring	15	00	16	00
XXX shingles, 16 inch	2	30	2	40
XX shingles 16 inch	1	30	1	40
Lath, No. 1	1	30	2	15
Lath, No. 2	1	80	1	85

YARD QUOTATIONS.

Mill cull boards and scantling	10	00
Shipping cull boards, promiscuous widths	13	00
Stocks	16	00
Scantling and joist, up to 16 ft	14	00
" " " 18 ft	15	00
" " " 20 ft	16	00
" " " 22 ft	17	00
" " " 24 ft	19	00
" " " 26 ft	20	00
" " " 28 ft	22	00
" " " 30 ft	24	00
" " " 32 ft	27	00
" " " 34 ft	29	50
" " " 36 ft	31	00
" " " 38 ft	33	00
" " " 40 to 44 ft	37	00
Cutting up planks, 1 and thicker, dry	25	00
" " board	18	00
Dressing blocks	16	00
Picks Am. inspection	30	00
1 r-2 in. flooring, dres'd	26	30
" " " rough	18	22
" " " dres'd	25	28
1 r-4 in. flooring, undressed, B.M.	16	18
1 r-4 in. flooring, dres'd	18	20
" " " undres'd	12	15
Beaded sheeting, dressed	20	35
Clapboarding, dres'd	12	00
XXX sawn shingles per M.	2	60
Sawn lath	2	60
Red Oak	30	40
White	37	45
Basswood, No. 1 and 2	28	30
Cherry, No. 1 and 2	70	90
White ash, 1 and 2	24	35
Black ask, 1 and 2	20	30

Ash, white, 1 to 2 in.	\$18	00	\$20	00	Elm, soft	1	"	1 1/2	\$11	00	\$12	00
" " 2 1/2 to 4.	20	00	24	00	" " 2	"	3.	12	00	13	00	
" " black, 1	1 1/2	16	00	18	" " rock	1	"	1 1/4	14	00	16	00
Birch, sq., 1	4.	17	00	20	" " 1 1/2	"	3.	15	00	18	00	
" " 4x4	8x8	20	00	22	Hickory	1 1/2	"	2.	20	00	30	00
" " red	1 1/2	20	00	22	Maple	1	"	1 1/2	16	00	17	00
" " 2	4.	22	00	25	" " 2	"	4.	17	00	18	00	
" " yellow	1	4.	14	00	Oak, red, p'n	1	"	2.	20	00	26	00
Basswood	1	1 1/4	15	00	" " 2	"	4.	25	00	30	00	
Butternut	1 1/2	2.	16	00	" " white	1	"	1 1/2	28	00	30	00
" " 2	4.	23	00	25	" " 2	"	4.	30	00	35	00	
Chestnut	1	3.	25	00	" " quart'd	1	"	2.	48	00	52	00
Cherry	1	1 1/2	50	00	Walnut	1	"	3.	85	00	100	00
" " 2	4.	60	00	65	Whitewood	1	"	2.	32	00	36	00

OTTAWA, ONT.

OTTAWA, May 31, 1893.

Pine, good sidings, per M feet, b.m.	\$32	00	40	00
Pine, good strips, " " "	27	00	35	00
Pine, good shorts, " " "	20	00	27	00
Pine, 2nd quality sidings, per M feet, b.m.	20	00	25	00
Pine, 2nd quality strips, " " "	18	00	20	00
Pine, 2nd quality shorts, " " "	15	00	18	00
Pine, shipping cull stock, " " "	14	00	16	00
Pine, box cull stock, " " "	11	00	13	00
Pine, s.c. strips and sidings	11	00	14	00
Pine, mill cull	8	00	10	00
Lath, per M	1	60	1	90

QUEBEC, QUE.

QUEBEC, May 31, 1893.

WHITE PINE—IN THE RAFT.

For inferior and ordinary according to average, quality etc., measured off	14	@	18
For fair average quality, according to average, etc., measured off	16	@	20
For good and good fair average, " " "	23	@	27
For superior " " "	28	@	30
In shipping order " " "	29	@	35
Waney board, 18 to 19 inch " " "	30	@	36
Waney board, 19 to 21 inch " " "	37	@	40

RED PINE—IN THE RAFT.

Measured off, according to average and quality	14	22
In shipping order, 35 to 45 feet " "	22	30

OAK—MICHIGAN AND OHIO.

By the dram, according to average and quality	45	51
ELM.		
By the dram, according to average and quality, 45 to 50 feet	30	32
" " " " 30 to 35 feet	25	28

ASH.

14 inches and up, according to average and quality	30	34
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BIRCH.

16 inch average, according to average and quality	20	23
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TAMARAC.

Square, according to size and quality	17	19
Flatted, " " "	15	18

STAVES.

Merchantable Pipe, according to qual. and sp'c'f'n—nominal	\$30	\$35
W. O. Puncheon, Merchantable, according to quality	90	100

DEALS.

Bright, according to mill specification, \$115 to \$123 for 1st, \$78 to \$82 for 2nd, and \$37 to \$42 for 3rd quality.		
Bright spruce, according to mill specification, \$40 to \$43 for 1st, \$27 to \$28 for 2nd, \$23 to \$25 for 3rd, and \$19 to \$21 for 4th quality.		

BOSTON, MASS.

BOSTON, Mass., May 31.—Lumber news is none too cheery at the Hub in contrast with the bright expectations of a month ago. A backward season in the lumber regions is keeping back work at the mills. Building operations are being deterred by the same cause, and this is making conditions further discouraging. Spruce, more probably than any other wood, is being affected by the late season. The New York market is said to be overstocked and this is not a good thing for dealers here.

EASTERN PINE—CARGO OR CAR LOAD.

Ordinary planed boards	\$12	00	14	00	3/4 inch	\$9	00	10	00	
Coarse No. 5	13	00	14	00	11-16 inch	8	00	@	9	00
Refuse	12	00	@	13	00	5/8 inch	8	00	8	50
Outs	8	00	10	50	Clapboards, sap ext.	52	50	55	00	
Boxboards, 1 inch	11	25	12	00	Sap clear	47	00	50	00	
7/8 inch	9	50	10	50	Sap, 2nd clear	40	00	42	50	
					No. 1	20	00	25	00	

WESTERN PINE—BY CAR LOAD.

Uppers, 1 in.	\$52	00	@	53	00	Fine com., 3 and 4 in	42	00	46	00
1 1/4, 1 1/2 and 2 in.	52	00	55	00	No. 2, 1 in. Fine com.	28	00	30	00	
3 and 4 in.	60	00	65	00	1 1/4, 1 1/2 and 2 in.	29	00	31	00	
Selects, 1 in.	43	00	45	00	No. 1 strips, 4 to 6 in.	43	00	44	00	
1 1/4, 1 1/2 and 2 in.	47	00	48	00	No. 2	35	00	37	00	
3 and 4 in.	56	00	59	00	No. 3	28	00	30	00	
Moulding boards, 7 to 11 in. clear	36	00	38	00	Cut ups, 1 to 2 in.	24	00	32	00	
60 per cent. clear	34	00	36	00	Coffin boards	20	00	22	00	
Fine common, 1 in.	38	00	39	00	Common all widths	22	00	26	00	
1 1/4, 1 1/2 and 2 in.	41	00	45	00	Shipping culls, 1 in.	15	00	15	50	
					do 1 1/4 in.	15	50	16	50	

SPRUCE—BY CARGO.

Coarse, rough	12	00	@	14	00
Hemlock bds., rough	12	00	@	13	00
Yard orders, ordinary sizes	15	00	@	16	00
Yard orders, extra sizes	16	00	@	18	00
Clear floor boards	19	00	@	20	00
No. 2	16	00	@	17	00

LATH.

Spruce by cargo	2	50	@	2	75
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SHINGLES.

Eastern sawed cedar, extra	\$3	00	\$3	25	Eastern shaved sawed cedar, 1st quality	15	00	5	25	
clear	2	50	2	75	2nd quality	4	75			
2nd's	2	25	2	25	3rd		4	00		
extra No. 1	1	50	1	75	4th		3	00	3	25
					Spruce No. 1		1	50		

OSWEGO, N.Y.

OSWEGO, N.Y., May 31.—Conditions are active with a good trade doing and prices firm.

WHITE PINE.

Three uppers, 1 1/4, 1 1/2 and 2 inch	\$47	00	@	49	00
Pickings, " " "	39	00	@	40	00
No. 1, cutting up, " " "	34	00	@	35	00
No. 2, cutting up, " " "	24	00	@	25	00
In strips, 4 to 8 wide, selected for moulding strips, 14 to 16 ft.	32	00	@	34	00

SIDING.	
1 in siding, cutting up picks and uppers... 32 00@39 00	1 1/4 in selected... 35 00@42 00
1 in dressing... 19 00 21 00	1 1/4 in dressing... 19 00 21 00
1 in No. 1 culls... 14 00 15 00	1 1/4 in No. 1 culls... 14 00 16 00
1 in No. 2 culls... 12 00 13 00	1 1/4 in No. 2 culls... 12 00 13 00
1 in No. 3 culls... 10 00 11 00	1 in No. 3 culls... 10 00 11 00
1X12 INCH.	
12 and 16 feet, mill run... 21 00 24 00	
12 and 16 feet, No. 1 and 2, barn boards... 19 00 20 00	
12 and 16 feet, dressing and better... 27 00 31 00	
12 and 16 feet, No. 2 culls... 15 00 16 00	
1X10 INCH.	
12 and 13 feet, mill run, mill culls out... 21 00 23 00	
12 and 13 feet, dressing and better... 26 00 28 00	
1X10, 14 to 16 barn boards... 18 00 19 00	
12 and 13 feet, No. 1 culls... 16 00 17 00	
12 and 13 feet, No. 2 culls... 15 00 16 00	
14 to 16 feet, mill run mill culls out... 21 00 23 00	
14 to 16 feet, dressing and better... 26 00 28 00	
14 to 16 feet, No. 1 culls... 17 00 18 00	
14 to 16 feet, No. 2 culls... 15 00 16 00	
10 to 13 feet, No. 3 culls... 11 00 12 00	
1 1/4 X10 INCHES.	
Mill run, mill culls out... \$22 00@25 00	No. 1 culls... 17 00 18 00
Dressing and better... 27 00 35 00	No. 2 culls... 15 00 16 00
1X4 INCHES.	
Mill run, mill culls out... 17 00 21 00	No. 1 culls... 14 00 15 00
Dressing and better... 24 00 30 00	No. 2 culls... 13 00 14 00
1X5 INCHES.	
6, 7 or 8, mill run, mill culls out... 20 00 25 00	6, 7 or 8, No. 1 culls... 16 00 17 00
6, 7 or 8, drsg and better... 25 00 30 00	6, 7 or 8, No. 2 culls... 14 00 15 00
SHINGLES.	
XXX, 18 in. pine... 3 70 3 90	XXX, 18 in. cedar... 3 50 3 75
Clear butts, pine, 18 in... 2 70 2 90	Clear butt, 18 in. cedar... 2 50 2 75
XXX, 16 in. pine... 3 00 3 25	XX, 18 in. cedar... 1 90 2 00
Stock cedars, 5 or 6 in... 4 50 5 00	
LATH.	
No. 1, 1 1/2... 2 75	No. 2, 1 1/2... 2 55
No. 1, 1 in... 2 00	

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., May 31.—A fair trade is about the best that can be said for lumber. The tangle of financial matters is causing everyone to move slowly Credit is watched closely, and banks are cautious in their discounts. The labor troubles on the docks are unsettling to trade though not blocking work to anything like the extent that had been anticipated. New men are readily found to take the place of the strikers. Prices keep firm, and various lines of pine continue short.

WHITE PINE.	
Upr's, 1, 1 1/4, 1 1/2 and 2 in... \$48 00 50 00	Shelving, No. 1, 13 in and up, 1 in... 32 00@34 00
2 1/2 and 3 in... 56 00 58 00	Dressing, 1 1/2 in... 26 00 28 00
4 in... 60 00 62 00	1 1/2 x10 and 12... 28 00
Selects, 1 in... 42 00 43 00	1 1/2 in... 24 00 25 00
1 1/2 to 2 in... 42 00 43 00	2 in... 26 50 28 00
2 1/2 and 3 in... 51 00 53 00	Mold st'ps, 1 to 2 in... 33 00 35 00
4 in... 52 00	Barn, No. 1, 10 and 12 in... 23 00 24 00
Fine common, 1 in... 37 00 38 00	6 and 8 in... 22 00 23 00
1 1/4 and 1 1/2 in... 37 00 38 00	No. 2, 10 and 12 in... 19 00
2 in... 39 00 40 00	6 and 8 in... 18 00 19 00
2 1/2 and 3 in... 39 00 40 00	No. 3, 10 and 12 in... 14 00 16 00
4 in... 47 00	6 and 8 in... 14 50 15 50
Cut'g up, No. 1, 1 in... 29 00 30 00	Common, 1 in... 16 00 18 00
1 1/2 to 2 in... 35 00 37 00	1 1/4 and 1 1/2 in... 18 00 20 00
No. 2, 1 in... 19 00 20 00	2 in... 20 00 22 00
No. 2, 1 1/2 to 2 in... 25 00 27 00	
No. 3, 1 1/4 to 2 in... 18 00 19 00	
BOX.	
1X10 and 12 in. (No 3 out)... 14 00	Narrow... 13 00@14 00
1X6 and 8 in. (No. 3 out)... 13 50	1 1/4 in... 15 00 18 00
1X13 and wider... 16 00	1 1/2 in... 15 00 18 00
	2 in... 15 00 18 00
SHINGLES.	
18 in. XXX, clear... 3 75	4 00 16 in., *A extra... 2 50 2 60
18 in. XX, 6 in. clear... 2 75	16 in. clear butts... 2 10
LATH.	
No. 1, 4 ft... 2 60	No. 1, 3 ft... 1 10
No. 2, 4 ft... 1 95	

ALBANY, N.Y.

ALBANY, N.Y., May 31.—A more backward season has not been experienced for some years. Very little lumber has arrived here so far, and this has been quickly picked up, as the demand is much larger than the supply. Prices, as a consequence, remain decidedly stiff. It is calculated that the new cut will command anything from \$1 to \$3 per thousand beyond last season's price.

PINE.	
2 1/2 in. and up, good... \$58 50	10-in. common... \$15 36
Fourths... 58	12-in. dressing and better... 28 34
Selects... 50	Common... 15 17
Pickings... 45	1 1/4 in. siding, selected, 13 ft. 40 45
1 1/4 to 2-in. good... 52 55	Common... 15 17
Fourths... 47 50	1-in. siding, selected... 38 42
Selects... 42 45	Common... 15 17
Pickings... 37 40	Norway, clear... 22 25
1-in. good... 52 55	Dressing... 16 18
Fourths... 47 50	Common... 11 15
Selects... 42 45	10-in. plank, 13 ft., dressing and better, each... 42 55
Pickings... 37 40	10-in. plank, 13-ft. culls, each... 23 25
Cutting-up... 22 27	10-in. boards, 13 ft., dressing and better, each... 28 32
Bracket plank... 30 35	10-in. boards, 13-ft. culls... 17 21
Shelving boards, 12-in. up... 30 32	
Dressing boards, narrow... 20 22	
LATH.	
Pine... \$2 40	Spruce... \$2 40 \$2 50
SHINGLES.	
Sawed Pine, ex. XXXX... \$4 35 \$4 50	Round butts, 6 x 18... \$5 90 \$6 00
Clear butts... 3 10 3 25	Hemlock... 2 15 2 30
Smooth, 6 x 18... 5 40 5 60	Spruce... 2 20 2 30

SAGINAW, MICH.

SAGINAW, Mich., May 31.—Nothing is more remarkable than the markedly stolid manner in which the lumber trade here hold to high prices. There is no approach to a letting down of the bars. As a matter of fact there

is very little lumber to sell. Green stuff is coming from the saw in insufficient quantities, some mills not yet running, waiting for logs. And a large part of what will be cut for some time is already contracted for.

FINISHING LUMBER—ROUGH.	
Uppers, 1, 1 1/4 and 1 1/2... 45 00	Fine common, 1 in... 35 00
2 in... 46 00	1 1/4 and 1 1/2 in... 36 00
Selects, 1 in... 40 00	2 in... 36 00
1 1/4 and 1 1/2... 41 00	C, 7, 8 and 9 in... 30 00
2 in... 41 00	
SIDING.	
Clear, 1/2 in... 24 00	C, 1/2 in... 19 00
3/4 in... 48 00	3/4 in... 34 00
Select, 1/2 in... 21 00	No. 1, 1/2 in... 13 00
3/4 in... 40 00	3/4 in... 23 00
TIMBER, JOIST AND SCANTLING.	
2X4 to 10X10, 12, 14 and 16 ft. \$11 00	20 ft... 13 00
18 ft... 13 00	22 and 24 ft... 15 00
For each additional 2 ft. add \$1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.	
SHINGLES.	
XXX 18 in. Climax... 3 65	18 in. X (cull)... 1 00
XXX Saginaw... 3 40	XXX shorts... 2 25
XX Climax... 2 25	XX... 1 50
18 in. c. b... 1 25	
LATH.	
Lath, No 1, white pine... 2 35	Lath, No. 2, W. pine, Norway 1 65

NEW YORK CITY.

NEW YORK, May 31.—Business is not by any means buoyant. Building operations are fairly active, but they are not of the kind to cause any large consumption of lumber. Spruce is in stock in much larger quantities that there would seem to be any present demand. White pine is on liberal call, but with supplies sufficient to meet the demand. As the centre of financial operations New York generally is affected in a noticeable degree by present financial disturbances, and there is a strong disposition in all lines of commerce to move slowly.

WHITE PINE—WESTERN GRADES.	
Uppers, 1 in... \$44 00@45 00	Coffin boards... 20 00 22 00
1 1/4, 1 1/2 and 2 in... 46 00 47 00	Box, in... \$17 00@17 50
3 and 4 in... 55 00 58 00	Thicker... 17 50 18 50
Selects, 1 in... 40 00 41 00	Ceil'g, base, fig. No. 1... 40 00 42 00
1 in., all wide... 41 00 43 00	No. 2... 35 00 37 00
1 1/4, 1 1/2 and 2 in... 43 00 44 00	No. 3... 24 00 26 00
3 and 4 in... 52 00 53 00	Shelving, No. 1... 30 00 32 00
Fine common, 1 in... 36 00 37 00	No. 2... 25 00 27 00
1 1/4, 1 1/2 and 2 in... 38 00 40 00	Molding, No. 1... 36 00 37 00
3 and 4 in... 46 00 48 00	No. 2... 34 00 36 00
Cutting up, 1 in. No. 1... 28 00 30 00	Bevel sid'g, clear... 22 50 23 00
No. 2... 21 00 23 00	No. 1... 22 00 22 50
Thick, No. 1... 29 00 32 00	No. 2... 20 00 20 50
No. 2... 24 00 26 00	No. 3... 16 00 17 00
Common, No. 1, 10 and 12 in... 22 00 23 00	Norway, c'l, and No. 1... 23 00 25 00
No. 2... 20 00 21 00	No. 2... 20 00 22 00
No. 3... 17 00 18 00	Common... 18 00 19 00

COMING SALES.

The Georgian Bay Consolidated Lumber Company announce in our advertising columns that early in August they will sell by auction, important pine timber berths in the Nipissing district. These properties are known to be among the most valuable along the north shore of the Georgian Bay.

TRADE NOTES.

John Milne, of Essex, Ont., proprietor of the Canadian Hollow Blast Grate Co., is making important additions to his manufacturing buildings and remodelling his offices.

The following letter speaks for itself: "Fall River Line, between New York and Boston, on board steamer 'Plymouth,' New York, April 29th, 1893, Magnolia Anti-Friction Metal Co., New York. Dear sirs—In answer to your enquiry as to our experience with the Magnolia Metal, we desire to say that we have it in the intermediate crank pin brasses of the Plymouth, and it has given us every satisfaction, and from our experience with it we cheerfully recommend it for such work. Yours very truly, B. J. Bensen, Chief Engineer, S. S. Plymouth."

MONEY.

JOHN Stuart Mill defines it as "a mere contrivance for facilitating exchanges;" a definition followed by another British writer, Jevons, in his book, "Money and the Mechanism of Exchange." Money is defined usually as a "measure of value;" it is something by the possession or surrender of which we measure the value to us of other articles. It need not be gold or silver. In Homer's time oxen were money; the Abyssinians used salt; the natives of the west coast of Africa used sea-shells; the early settlers in Virginia used tobacco; Marco Polo says that the Chinese used paper—not paper redeemable in coin, but paper made valuable, by the Great Khan's orders. So really money is anything that is generally accepted as of value, which serves to do away with trading "in kind" or barter. It makes no difference what its nature is, so long as it is something which is of value to the people at large.

STEAM PUMPS



Duplex Steam Pumps

AND SINGLE AND POWER

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US



NORTHEY

M'FG CO.

LIMITED

TORONTO - ONT.

WOOD PULP.

WRITING of the production of wood pulp in the United States, a contemporary says: "When the manufacture of pulp in this country was in its infancy the material was obtained principally from New York State, but as supplies became reduced and more difficult to reach, manufacturers have sought other fields. Within the past few years the spruce forests of Maine have been drawn upon liberally, and during the past season a syndicate of manufacturers has made large purchases of timber lands in Canada along the United States border for the purpose of cutting the wood and reducing it to pulp. The extensive character of this business has a material influence upon the cost of timber and lumber for commercial purposes, especially as pulp manufacturers have commenced to discover that the best logs serve their purposes more readily than poor stuff. Considerable foreign stock is still imported, but the domestic production, it is thought, will soon satisfy all demands. Norway is one of the most important pulp producing countries, and a recent communication gives some idea of the output. The exports of what is called "mechanical wood pulp" were 115,000 in 1886, but last year they were 210,000 tons. Restriction of production was attempted last year, and concurrently there was a decrease of 20,000 tons in the exports, and the trade is now growing in other parts. In addition to the mechanical wood pulp there is also a considerable export of chemical wood pulp from Norway, which is stated as about 28,500 tons for the year."

SHIP BUILDING IN ENGLAND.

LOYD'S returns show that there are 354 vessels of 621,668 tons gross under construction in the United Kingdom at the close of the year ending March 31st, 1893, as compared with 493 vessels of 843,078 tons at the close of the corresponding quarter in 1892, thus showing that the work has diminished by over 220,000 tons, or 26 per cent. Of the vessels now being built there are 236 steel steamers, 20 iron steamers and 7 wooden and composite steamers, the total steam tonnage being 535,291; while as regards sailing vessels there are 51 being constructed of steel, 2 of iron and 38 of wood and composite, the gross tonnage being 86,377. The returns show that only Belfast and Hartlepool have held their own, all the other rivers suffered alike from the recent depression. The number of vessels being built abroad affords no room for the suspicion that shipbuilding is leaving Great Britain, the principal figures being: Trieste, 2 vessels of 4,900 tons; Antwerp, 1 vessel of 2,600 tons; Copenhagen, 7 vessels of 8,141 tons; Nantes and St. Nazaire, 9 vessels of 15,240 tons; Bremerhaven, etc., 8 vessels of 10,091 tons; Dantzig, 2 vessels of 7,500 tons; Hamburg, etc., 16 vessels of 29,458 tons; Rostock, etc., 8 vessels of 7,725 tons; Amsterdam, 2 vessels of 3,650 tons; Kinderdijk, 2 vessels, of 3,540 tons; and Philadelphia, etc., 9 vessels of 14,010 tons.

HOW TO SAW LOGS.

By J. H. MINER.

THERE is nothing especially difficult about setting a log right, and any practical sawyer ought to be able to do it, but it is unfortunately not to be said of all of them that they are. In ripping flitches it is not uncommon to see the saw pinched and stopped, the driving belt slips, and the result is often a sprung saw and perhaps a badly injured belt. I remember several years ago that a lot of 100,000 feet of 1 1/4 x 6 in. kiln-dried flooring stock that was sent to market, 50,000 feet was refused by the buyer on the ground that the pieces were only from 5 1/4 to 5 3/4 inches wide at one end while running six inches plump at the other. Investigation showed the cause of this to be a sawyer who did not know his

business. He would run his log on to the saw, get stuck, back out and start again. He applied water, and kept up this see-saw motion until the cant ceased to pinch and the saw would run through. Each time the saw entered it took another quarter-inch from the six-inch flitch on one end, while when it got fairly started it cut full six inches wide. The stock was the spruce found in the Southern lowlands, which is very springy.

All logs should be set on the carriage so that the saw will run parallel with the straightest way of the log when ripping flitches or deals for an edger. Such a deal goes to the edger, and again we have trouble. The edger shakes, the saws stop, the belts smoke, and sometimes the fire flies. When at last the stuff has been forced through, we have something resembling wheel felloes. The rule stated is imperative, and if sawyers were obliged more than they are, to watch it closely, the result would be time and money saved to the owner of the mill.

ACTED WISELY.

MONETARY TIMES: An attempt was made in the Ontario Legislature to pass a bill to require the holders of timber licenses in the Province to manufacture the lumber in Canada instead of exporting the logs. Ontario, it may be, has the power to make such a regulation; but this is doubtful, as it would be in the nature of a restriction on trade. If such a policy were a wise one, which would be difficult to prove, the regulation would properly fall to the Ottawa authorities. But the Ottawa authorities, whatever their shortcomings, are too wise to impose such a restriction, with the full knowledge that the effect would be to cause an increase in the American duty on Canadian lumber. The Local Legislature, in throwing out the bill to require the owners of timber limits to manufacture the lumber here, did the best thing possible. To have passed it would have been voluntarily to diminish the selling value of our standing timber, a sacrifice for which no adequate compensation would have been received.

PREVENTING FIRES.

IT is pleasant to record the growth of the idea of fire-prevention in wood-working plants in many sections of the country. Ten years ago it was rare to find a planing mill or other combustible plant in which there was any provision made for extinguishing fire. To-day it is the exception to find one of these plants without some provision for fighting the "fire-fiend." Large plants are being equipped with tanks and automatic sprinklers. Smaller plants show up with tanks and barrels, force-pumps and pails, and there seems to be a growing idea that a wood-working plant, while necessarily combustible, is worth at least an effort to save. It may be a rather too enthusiastic view to assert that the effect of the spread of this idea has already resulted in an appreciable decrease in fires, but it is certain that many fires have been prevented by simple means lately. Last month, in one day, I visited three wood-working plants, in which the simple old pail of water and sand had prevented serious fires. Each one of the three plants was saved by the operatives, who had been trained in the use of the ready buckets. That was to me an object-lesson on the immense value of the ounce of prevention, and every mill owner and insurance man could profit by making this a study.—Lumber World.

A GOOD ISSUE.

The June Arena is a mammoth number and one of the best issues of this growingly popular monthly. It contains one hundred and sixty-four pages, of which one hundred and forty-four are in the body of the magazine, and twenty pages of carefully written book reviews by well-known critics.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

WANTED—A SITUATION AS FILER IN A sawmill. Have had nine years' experience with gang and round saws. Address "H," 3 Maitland St., Halifax, N.S.

WANTED—BY YOUNG MAN—SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care CANADA LUMBERMAN, Toronto.

LUMBERMEN

EXPERIENCED SHIPPER OPEN FOR ENGAGEMENT middle of May. Good bookkeeper and correspondent. Competent to take charge of mill. References furnished. Address "Inspector," care CANADA LUMBERMAN, Toronto.

RAILS FOR TRAMWAYS

NEW AND SECOND-HAND STEEL AND iron rails for tramways and logging lines, from 12 lbs. per yard and upwards; estimates given for complete outfit.

JOHN J. GARTSHORE,
49 Front St. West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with I.C.L., care CANADA LUMBERMAN, Toronto.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

P.O. Box 2144,
NEW YORK.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, 1 and 1 1/2, all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long. Address all particulars as to dryness, quality, quantity on hand and price, to P.O. Box 2144, New York, N.Y.

AUCTION SALE

— OF —

CANADA

PINE TIMBER LIMITS

IN ORDER TO WIND UP THE AFFAIRS OF "The Georgian Bay Consolidated Lumber Company," the following Timber Berths will be sold by public auction in the City of Toronto, during the early part of August next.

Berths Nos. 44, 45, 60 and 61, each containing 36 square miles, more or less, tributary to the Wahnapiatae River.

Berths (south halves of 41 and 49), each containing 18 square miles, more or less, situated on Lake Wahnapiatae.

These Limits are in the District of Nipissing, on the North Shore of the Georgian Bay. The waters of Lake and River Wahnapiatae empty south into the French River, thence into the Georgian Bay. The licenses give the right to cut all kinds of timber. The ground rent is \$3.00 per square mile, and the Crown dues are \$1.00 per thousand feet b. in. for pine saw logs.

Notice will be given later on of the time of sale, and the terms and conditions will be made known on the day of sale.

THE GEORGIAN BAY CONSOLIDATED LUMBER CO.,
24 King Street West,
Toronto, April 2nd, 1893. Toronto, Canada.

SAW AND SHINGLE MILL
FOR SALE

At Proton Station on the G.P.R.

Containing 3 1/2 Acres of Land

Mill Capacity from 10,000 to 15,000 feet per day

THE PROPERTY IS SITUATED IN ONE of the best hardwood districts in the country.

Two small houses, stable, etc., on the property.

Mill is running, and can be seen at any time.

Terms easy.

For full particulars apply

235 QUEEN STREET EAST,
Toronto.

IMPORTANT SALE

— OF A —

LARGE AND VALUABLE

TRACT OF TIMBER AND MINERAL
LAND

THE TIMBER AND MINERAL PROPERTY of the Scottish Carolina Timber & Land Company, Limited, in liquidation, situate in Haywood and Madison counties, western North Carolina, will be offered for sale at public auction at the Court-House door, at Knoxville, Tennessee, on

Wednesday, June 14th, 1893

This splendid tract of land is estimated to contain about forty thousand acres, a large part of which is heavily timbered with poplar, white-pine, cherry, walnut, hickory, maple, birch, bass-wood, hemlock and other woods. After the timber is removed from the lands, the property will still be valuable for agricultural and grazing purposes, and for the rich deposits of iron-ore and other minerals upon it.

This property having come into the hands of mortgagees, must be sold, and offers a rare chance to investors or practical lumbermen. For further description or particulars, apply to

LEON JOURLOMON, Attorney,
Knoxville, Tennessee.

VALUABLE

Timber Lands
— AND — Saw Mills
FOR SALE
AT PARRY SOUND

THE MILL IS SITUATED ON THE WATERS of Parry Sound, and has good shipping facilities. The largest vessels or steamers on the lakes can load at the lumber docks. The mill will cut about twenty thousand feet of lumber and twenty-five thousand shingles in ten hours.

There are about seven thousand five hundred acres of timber pine, hemlock, birch, ash, oak, spruce, bass-wood, etc.

The timber is free of dues.

Parry Sound is the terminus of the Ottawa, Arnprior and Parry Sound Railway, now in process of construction.

Price: Twenty-five thousand dollars.

Terms as may be agreed upon.

WM. BEATTY,
Parry Sound.

Lumbermen

YOUR BUSINESS IS
HELPED BY ...

.: ADVERTISING .:

... IN ...

CANADA LUMBERMAN

.: .: WRITE FOR PARTICULARS

3½ Cents a day—

That isn't much money, is it?

About twenty-five cents a week or so.

And a man must be pretty hard up if he hasn't that much to spend every week.

Times are hard, they say; but if they are hard now to your family and yourself, what will they be to your family without you?

That's worth thinking about.

We think that no man should be without life insurance when it can be had at such a low rate as 3½ cents a day from the Manufacturers' Life, Yonge Street, corner Colborne, Toronto.

Write to us and we will give you all particulars.

DONOGH & OLIVER



WHOLESALE DEALERS IN

LUMBER



OFFICE

Nos. 213, 214 and 215

Board of Trade Building

Toronto, Ont.

Representative Lumber Manufacturers and Dealers

Town	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Circular, 3m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Steam, Circular, 40m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar	Steam, Circular, 16m
Blind River, Ont.	Blind River	Blind River Lumber Co.	Oak, Oak Railway Ties, Paving Blocks	Stm., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	BOYD, Mossom & Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Wholesale and Retail	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Shingles, Wholesale	
Waubaushtene, Ont.	Waubaushtene	Georgian Bay Consol. Lumber Co. H.d. office arcade 24 King st. w., Toronto	Lumber, Wholesale and Retail	Waubaushtene mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	White and Red Pine Lumber, Bill Stuff, Lath and Shingles.	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Head Office, Strachan Ave., Toronto	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Collins Inlet Lumber Co.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glamis, Ont.	Pinkerton	Ainslie, J. S. & Bro.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods.	Steam, Cir., Saw 14m, Sh. 20m
McIntyre, N. & A.				
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Howry, J. W. & Sons.	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	
Norman, Ont.	Norman	Cameron & Kennedy.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 40m
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles.	Steam, Circular, 20m.
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Toronto, Ont.	Toronto	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Warton, Ont.	Warton			Circular, Gang and Band, 180m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	
Toronto	Toronto	DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail	
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	JAMES MORRISON & SON	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

CORRESPONDENCE SOLICITED

OAK TANNED BELTING

TORONTO 20 FRONT ST EAST TELEPHONE 475

THE J.C.McLAREN BELTING CO

MONTREAL

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-HAND Boilers, Engines and General Machinery for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:-

- ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.
ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.
THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.
ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.
TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.
ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S make.
TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.
ONE 6 1/2 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.
TWO 3 1/2 x 9 SLIDE-VALVE ENGINES, BECKETT'S make.
ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.
ONE 15 H.P. ENGINE, English make.
ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.
ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:-

- ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.
TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.
ONE GOLDIE & McCULLOCH THREE-SIDE moulder.
ONE ONE-SIDE MOULDER.
TWO 34-INCH WHEELS BAND SAWING machines.
ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.
ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.
ONE GOOD SHAPER.
SIX GOOD SAW TABLES.
ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.
ONE WOOD FRAME TENONER IN GOOD shape.
TWO UPRIGHT SWING SHINGLE OR or heading machines, with jointers.
ONE ALMOST NEW GENUINE "BAILEY" gauge or handle lathe, with countershaft.
ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.
FOUR DOWELL MACHINES.
ONE 20-INCH WATEROUS CHOPPER COMPLETE with double elevators, equal to new.
FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

SECOND-HAND MACHINERY FOR SALE

One right hand 12 x 14 straight line engine, our make run a very short time.
One pair of engines, right and left, 16 x 20, can be used separately or together, with two large pulleys and fly wheel and connecting shaft.
Three boilers 48 x 14 with large domes, full fronts all fittings, fixtures and stack.
One 60 x 13 ft. 6 in. steel boiler, with 64 3 1/2 in. x 13 ft. 6 in. tubes, boiler made of 6 sheets double rivetted on side seams, furnished complete with all fittings, fixtures and stack, boiler and fixtures are in perfect order having been run but three months.
One 56 x 14 boiler, comparatively new, has been in use less than a year.
One right hand iron saw frame, with mandrel, pulley, boxes, three 54 in. saws, 56 to 100 teeth in each, and one 64 in. saw, suitable for steam or independent friction feed.
One 3-block heavy saw carriage, Sewry's make, with boss dogs, V and flat track, frame and carriage are in good order, have averaged 35,000 to 40,000 ft. per day, only discarded to put in a band mill and carriage suitable for same.
One left hand 3-block light medium sized saw carriage with V and flat track.
Several portable engines from 12 to 20 horse power.

WATEROUS, BRANTFORD, CANADA

FOR SALE

A HANDLE LATHE FOR MAKING FORK and rake handles.

Inch squares are cut out of slabs, piled one on top of the other in the machine, and it automatically takes the lowest, runs it between the knives and produces the handle without any more attention. Contracts can be secured for all the handles that can be produced with the machine.

WATEROUS, BRANTFORD, CAN.

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TWO CAPABLE MEN WANTED AT ONCE for the season. Apply to

THE MUSKOKA MILL & LUMBER CO., Muskoka Mills, Ont.

J. J. TURNER

.. Sail, Tent and Awning Maker ..

251 George St. and 154 King St. PETERBOROUGH

Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed. Every description of Lumbermen's Supplies and Waterproof Clothing.

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Lumber and Commission Merchant

RECEIVER AND FORWARDER OF LUMBER, LATH AND SHINGLES

... CORRESPONDENCE SOLICITED ... OWEN SOUND, ONT.

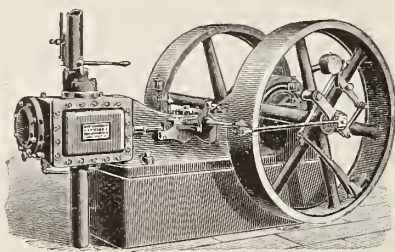
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Obtained in Canada.

UNITED STATES AND FOREIGN PATENTS A SPECIALTY.

Engineering Drawings Furnished.

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All parts interchangeable, Governor either Automatic or Throttling.

Monarch Economic Boilers

Economical Portable Durable

MILL MACHINERY AND SUPPLIES, WOODWORKING MACHINERY, ETC.

ROBB ENGINEERING CO. LTD.

AMHERST - - NOVA SCOTIA

THE NORTH SHORE NAVIGATION CO.

Royal Mail Line of Steamers

CITY OF MIDLAND CITY OF LONDON ... FAVORITE ... MANITOU ...

Running in connection with the G.T.R. and C.P.R., will sail during the season of 1893 as follows:

THE CITY OF MIDLAND AND THE CITY OF LONDON will leave Collingwood at 1.30 p.m. every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same day at 10.30 p.m., after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and stopping at all intermediate ports to Sault Ste. Marie. Returning leave the Soo at daylight, making railway connections at Wiarton, Owen Sound and Collingwood.

The FAVORITE will leave Collingwood Monday and Thursday, at 1.30 p.m. for Parry Sound, Byng Inlet, French River and Killarney, connecting there with line steamers for Sault Ste. Marie. Returning stop at French River, Byng Inlet and Midland, making connection there with steamer MANITOU for Parry Sound and G.T.R. for south and east, and at Collingwood with G.T.R. for Toronto and Hamilton.

Commencing Thursday, May 4th

The MANITOU will make regular trips from Penetanguishene, connecting with trains from the south only at Midland, every Monday, Wednesday, Thursday and Saturday on arrival of G.T.R. from all points south and east for Parry Sound, making connection there with the steamer FAVORITE for Byng Inlet, French River and Killarney, where the latter connects with the line steamers for the Soo.

For tickets and further information see folders, or apply to all agents of the G.T.R. and C.P.R., or to C. E. STEPHENS, M. BURTON, Sec.-Treas., Collingwood, Mgr. Collingwood.

CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF

THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA:

1893

Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank:

Power, style and capacity of mill:

Class of manufacture:

Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank:

Wholesale or Retail: Class of stock handled:

Post Office: Shipping Point:

Owners of planing mills, sash, door and blind factories, will please fill in following blank:

Power and style:

Class of manufacture:

Post Office: Shipping Point:

(Signed)

.....P.O.

.....Province.....

Address all communications to

DIRECTORY DEPARTMENT, CANADA LUMBERMAN, TORONTO, ONT.

Do You Lack Steam? We Can Help You THE CANADIAN HOLLOW BLAST GRATE

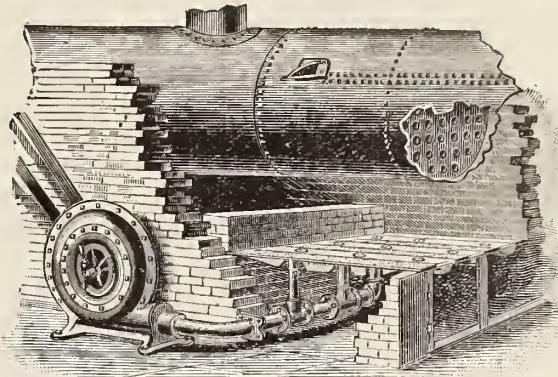
The Hollow Blast Grate supplies the furnace fire with a blast of hot air sufficient at all times to insure the rapid and perfect combustion of fuel of every sort.

It is the only appliance that steams successfully with green or wet sawdust, tanbark or other refuse and waste.

It alone has solved the problem of steaming with the fine, compact dust of the band mill.

THEY WILL NOT BURN OUT LIKE OTHER GRATES. NO SAW MILL CAN AFFORD TO BE WITHOUT. THEY WILL SAVE THEIR PRICE IN THREE MONTHS.

REGARDLESS OF THE CHARACTER OF YOUR FUEL, WE CAN GREATLY INCREASE THE VOLUME OF STEAM GENERATED IN YOUR BOILERS.



Furnace Fitted with Hollow Blast Grates and Apparatus.

HUNDREDS OF TESTIMONIALS LIKE THE FOLLOWING:

"After having used your blast grate for one year we have much pleasure in saying that in our opinion they are THE INVENTION OF THE AGE. We would not be without them under any consideration." STEINHOFF & GORDON, WALLACEBURG, ONT.

"They are a complete success, doing more than you claimed for them. We now keep a full supply of steam using nothing but green elm sawdust, doing better than we could with dry wood using the ordinary grate bars." - C. W. THOMAS, GORDON, ONT.

"They give us full satisfaction in every respect. We now turn out one third more stuff per day than formerly. They exceeded our expectations." M. MACKON & COATES, TILBURY CENTRE, ONT.

"The blast grates started all right and give good satisfaction. We can burn most of the saw-dust and keep up steam now. I would not be without them for double the price." JOHN G. ROCK, BROOHAGEN, ONT.

"I do not consider a saw mill complete without Blast Grates." AARON GORDON, DRESDEN, ONT.

"I put in a set of your Grates a year ago, and they pleased me beyond expectation. I spent hundreds of dollars in various contrivances to burn elm sawdust, but without success. I now burn all my dust. I can keep up better steam pressure than I could before with dry wood." - C. E. NAYLOR, ESSEX, ONT.

IT COSTS YOU NOTHING TO TRY THEM

WE GUARANTEE SATISFACTION OR NO SALE

FOR INFORMATION, PRICES OR ESTIMATES, ADDRESS

THE CANADIAN HOLLOW BLAST GRATE CO., ESSEX, ONT.

A. ALLAN, President

J. O. GRAVEL, Secretary-Treasurer

J. J. MCGILL, Manager

F. SCHOLDS, Managing Director



Canadian Rubber Company

Capital, \$2,000,000.00

of MONTREAL, TORONTO and WINNIPEG

MANUFACTURE

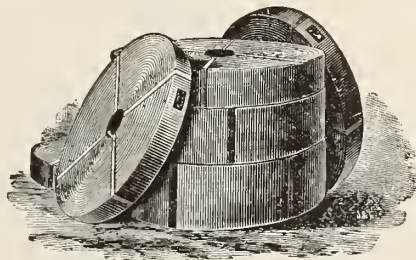


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RUBBER GOODS

for Mechanical Purposes

RUBBER BELTING, PACKING, HOSE



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Seamless Rubber Belting

Seamless Tube Hose

These Patents we control for Canada

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Western Branch: CORNER YONGE AND FRONT STREETS

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J. H. WALKER, - - Manager



... THE ... FLINT & PERE MARQUETTE RAILROAD

FROM
Port Huron and Detroit

Is the Short Line to
SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)

MT. PLEASANT, GLARE, REED CITY
BALDWIN, LUDINGTON, MANISTEE
AND
MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company
line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from
NEW YORK BUFFALO MONTREAL TORONTO

to ST. PAUL, DULUTH and Pacific Coast points.

Write either of the undersigned for Folders, which
contain Maps, Train Schedules and much information
of value to those contemplating a trip to any of the
above-mentioned points.

W. H. BALDWIN, JR., General Manager. W. F. POTTER, Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

GENERAL OFFICES: - SAGINAW, MICH.

Actual Results

NET PREMIUMS
PAID TO THE

ONTARIO MUTUAL LIFE

on an ordinary Life Policy of \$1,000,
No. 1230 during its first 20 years,
issued for age 37:

In 1872....	Paid \$26.57	In 1882....	Paid \$13.29
1873....	" 26.57	1883....	" 12.33
1874....	" 26.57	1884....	" 11.69
1875....	" 24.71	1885....	" 11.35
1876....	" 20.65	1886....	" 11.35
1877....	" 19.16	1887....	" 12.19
1878....	" 17.32	1888....	" 12.88
1879....	" 13.02	1889....	" 12.41
1880....	" 12.65	1890....	" 11.91
1881....	" 13.29	1891....	" 11.38

Total Paid in 20 years...\$321.29

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6 & 2ND
MACHINERY
ILLUSTRATED CATALOGUE FREE
H.W.PETRIE
TORONTO, CANADA.

USE
SPOONERS'
HONOR BRIGHT
GOPPERINE
BEST MACHINERY BOX-METAL EXTANT.
CANADIAN MADE & STUMPS THE WORLD.
QUALITIES TO DO ALL YOUR WORK.
HARDWARES ALL SELL IT
EASY AS AN OLD SHOE
GENUINE SAFEGUARD
FOR ENGINEERS
HIGH CLASS
METAL

Rochester Bros.

:: COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. **Ottawa**



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OVER ONE MILLION SOLD
Most complete Book
of its kind
ever published

Gives measurement of a kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round timber; hints to lumber dealers; wood measure; speed of circular saws; care of saws; cordwood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stave and heading bolts, etc. Standard book throughout the United States and Canada. Get the new illustrated edition of 1882. Ask your bookseller for it. Sent post paid for 35 cents.

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METALLIC ROOFING CO
MANUFACTURERS, TORONTO.

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MACHINE KNIVES

OF EVERY DESCRIPTION FOR
Planing, Moulding and Stave Cutting

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J. W. MAITLAND — H. RIXON



J. G. AINSIE — W. STODART

MAITLAND, RIXON & CO.

OWEN SOUND, ONT.

Saw Millers and Lumber Dealers

All kinds of Building Material kept in stock

WE MAKE A ... SPECIALTY OF LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK

Quotations furnished on application

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Doors, Sash, Blinds, Stairs

And all kinds of House-Finishing Materials

CEDAR OIL for Purging Boilers

CORRESPONDENCE SOLICITED

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MANUFACTURERS OF

WOOD-WORKING MACHINERY
MACHINE TOOLS, ETC.

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LEATHER BELTING
AND LACE LEATHER

Danville, Que.

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Wholesale and Retail Dealer in

ALL KINDS OF LUMBER

LUMBER SHIPPED TO ALL PARTS BY RAIL OR VESSEL

WHITBY, ONTARIO

Dauntless Shingle and Heading Machine

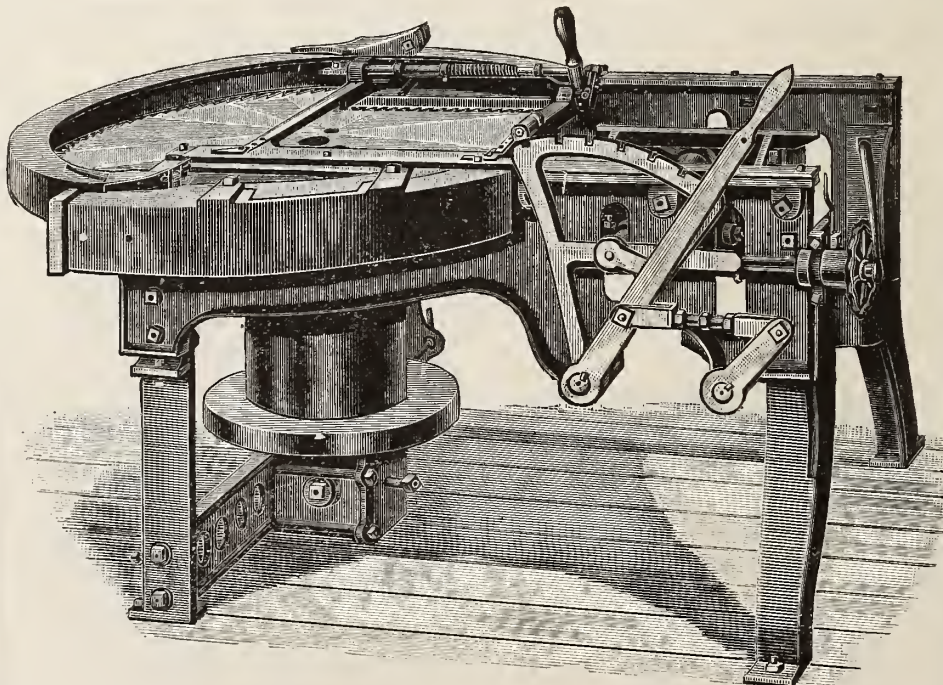
∴ WILL make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

... Is of Iron throughout, very heavy and rigid, strongly bolted and braced.

THE CARRIAGE

... Is very light and strong, made of forged Cast Steel Plate, running on steel ways or tracks. Will take in a block 18 inches wide and 19 inches long, adjustable for 16-inch or 18-inch shingles.



CAPACITY FROM 25,000 TO 50,000 PER DAY

[COPY.]

LINDSAY, May 18th, 1893.

MR. F. J. DRAKE, Belleville.
Dear Sir,—The shingle machine we bought of you over a year ago is doing well. Last year we averaged over 32,000 shingles per day all through the season. We did not lose 15 minutes' time from all stoppages, and all repairs so far have not cost 50c. We expect to make a still higher average cut this year.

All our other machinery purchased from you is as good as the shingle machine. Your drag saw, with friction drive, cannot be beaten. We run ours 180 strokes per minute; with 6½ ft. saw it would easily make blocks for two shingle machines. The splitter, with balance wheel 4 feet diameter, weighing 1,000 lbs., is perfect and runs without the least jar. The iron frame shingle jointer with 40-inch saw is the only good jointer we ever saw. In fact, all your machinery, line shaft, pulleys, etc., give us the best satisfaction.

We expect to require another mill in a few days, and, if we do, will send you the order for complete outfit.

Truly yours,
M. DOVEY.

P.S.—If any one wants to see a good working shingle mill send them to me.—M. D.

F. J. DRAKE

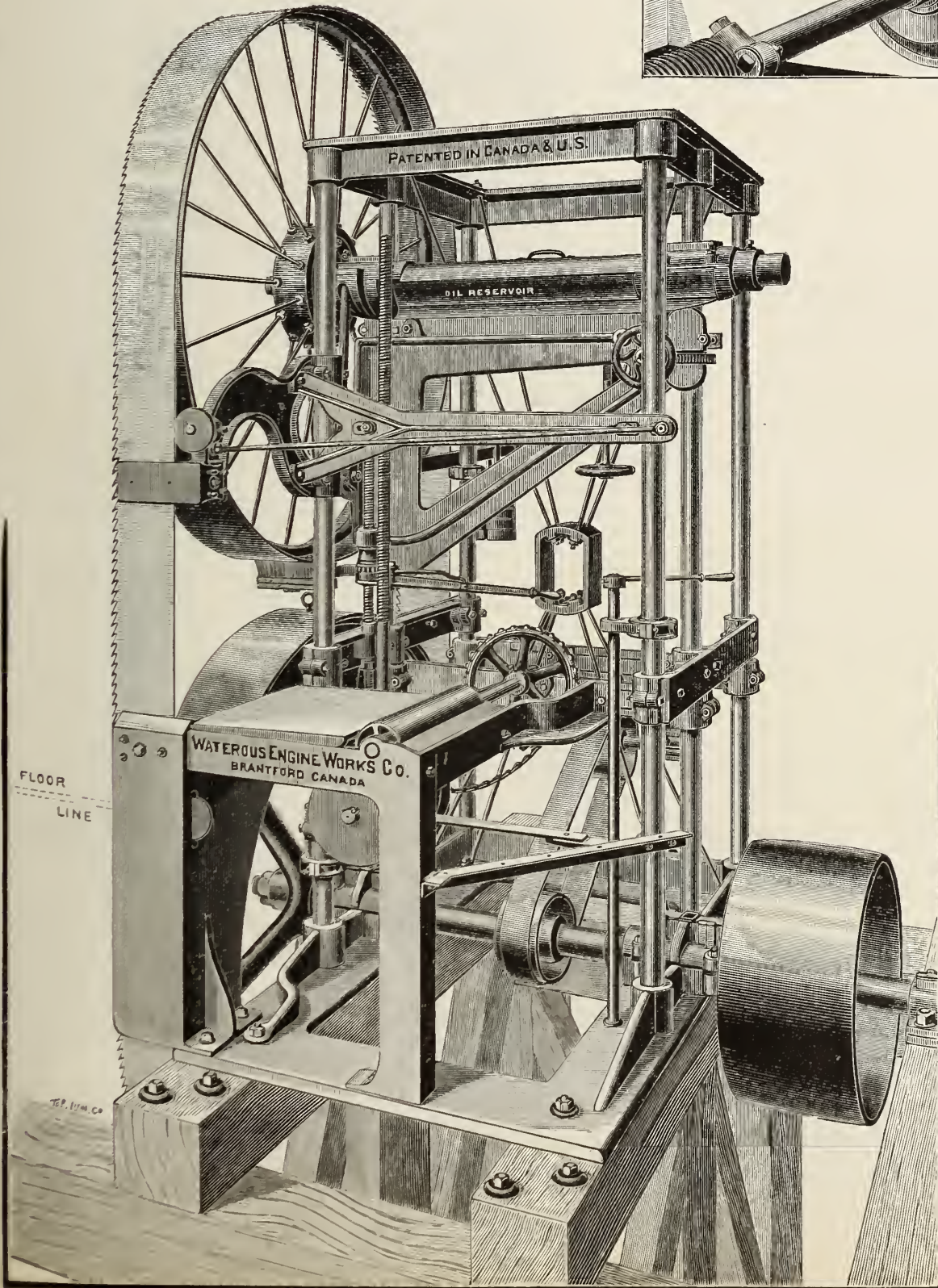
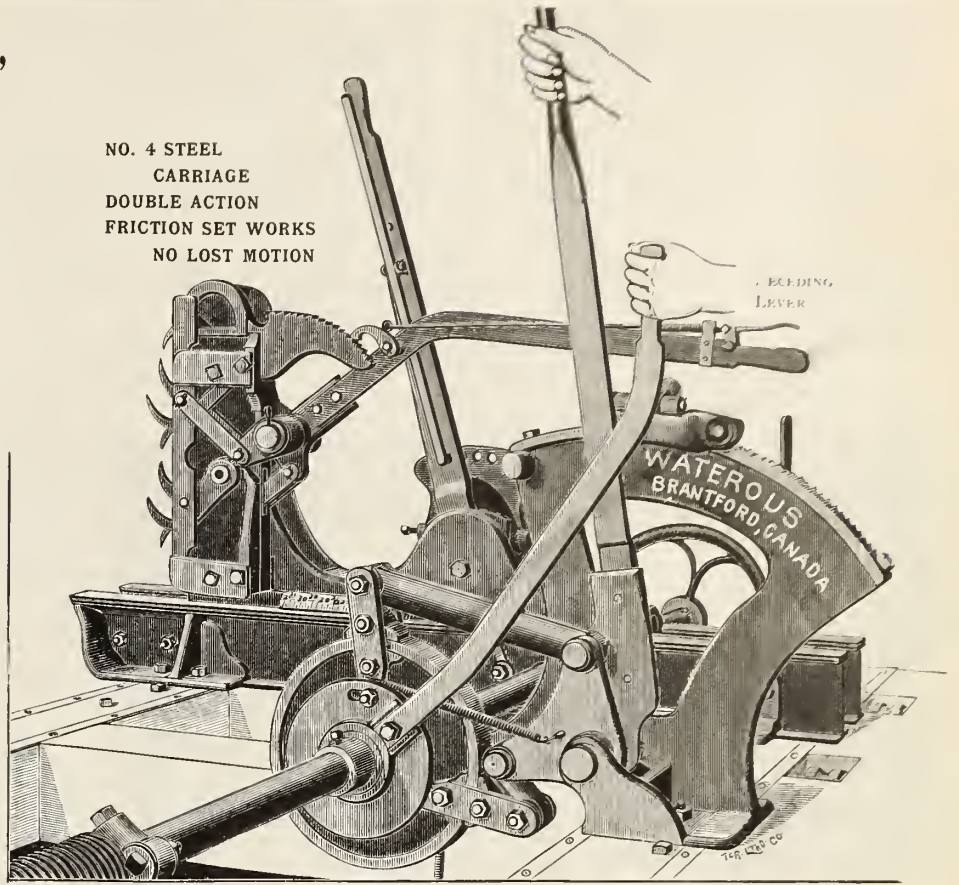
PATENTEE AND ... MANUFACTURER OF SAW, SHINGLE AND LATH MACHINERY
BELLEVILLE, ONT.

"None Surpass ^{GHE} WATEROUS"

It has more special features to commend it than any other Band

- GREAT STIFFNESS - from its breadth of frame
- PERFECT STEADINESS - under the greatest speed
- TENSION - - - the most sensitive
- STRAIN ON SAWS - reduced 25% to 50%
- SHORTEST SAWS - by 3 to 15 feet
- FOOT SPEED OF SAWS - the highest attainable
- OFF-SET TO CARRIAGE the most simple, applicable to almost any carriage
- BAND SAW TOOLS - the best and latest improved, the largest line
- BAND SAW EXPERT - one of the best, at the service of our customers, to put saws right and teach your sawyer how to handle the saws

NO. 4 STEEL CARRIAGE
DOUBLE ACTION
FRICTION SET WORKS
NO LOST MOTION



Start Right

ORDER
The Waterous No. 2
BAND SAWMILL

Not having already decided to put in a BAND, you may consider it too late for this season.

We can erect in your mill at any time during the summer, one of our No. 2 Band Mills, and not delay you longer than a week.

Will not a saving of 5-32nds on each cut of an ordinary circular more than pay you to make the change.

Capacity of mill is increased rather than diminished.

BETTER ORDER AT ONCE

WATEROUS
BRANTFORD

HIGH GRADE
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CANADA

Napanee Cement Works, Ltd.

NAPANEE MILLS, ONT.

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NONE BETTER; AND OF

NAPANEE CEMENT

ARTICULARLY ADAPTED FOR DAMS, SMOKE-STACKS, FOUNDATIONS, CULVERTS, CISTERNS, CELLARS, ETC. LARGELY BEING USED IN THE ST. LAWRENCE RIVER CANAL. ENDORSED BY LEADING RAILWAYS AND CONTRACTORS.

F. REDDAWAY & CO.
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BREAKING STRAIN 6 IN. "CAMEL" HAIR BELT ----- 14,181 lbs.
" " 6 IN. ENGLISH OAK DOUBLE LEATHER -- 7,522 "

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Endorsed by leading Architects
Absolutely Fire-proof Deadens Noise
Does not Crack on application of Heat or Water
About as Cheap as Wood or Brick
Weight one-third that of Brick

TERRA COTTA FIRE-PROOFING

For use in Old and New Buildings

Gives Warmth in Winter; Coolness in Summer

WHY BAND SAWS BREAK

SIXTEEN

REASONS,

AND HOW TO

AVOID THEM



Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

A book filled with valuable information on the care of band saws. Giving the reasons for breaking; analyzing each reason; giving instructions to dispense with the causes as laid down in each reason; and full details on filing and brazing. The proper styles of hammers to use are illustrated and described, and views of blades showing the blows of the different styles of hammers form an important part of the illustrations. Improper and unequal tension are then treated, and the manner of properly setting irregular teeth is described. In connection with the treatise is a history of the invention, manufacture and use of the saw from its origin to the present time. The work in whole makes an accumulation of information such as has never before been published.

The book is printed on fine paper, good clear type, and is handsomely and substantially bound in cloth. It will be sent to any address on receipt of the price, ONE DOLLAR.

Address— CANADA LUMBERMAN, Toronto, Ont.

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MANUFACTURERS OF

Leather Belting

SPECIALTIES
DYNAMO BELTS
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MONTREAL TORONTO
2518 & 2520 NOTRE DAME ST. 129 BAY ST.

Send for sample of our new SAWMILL BELT

EVERY LUMBERMAN WANTS IT

35 CENTS BUYS IT

Scribner's Lumber and Log Book

SAVES TIME SAVES MISTAKES SAVES MONEY

BRIMFUL OF EVERY-DAY, PRACTICAL INFORMATION

Address: THE CANADA LUMBERMAN, Toronto

35 CENTS BUYS FISHER'S GRAIN TABLES

The book contains more valuable information and useful tables for Farmers, Millers, Traders and others than any similar book of its kind ever published, besides being a complete Ready Reckoner showing the value of articles or lbs. from one to 500; from a quarter of a cent to \$2.00. Also tables for Grain, Hay, Rent, Board, Wages, Interest, etc. Write for sample copy.

THE CANADIAN MILLER, Toronto, Ont.

J. D. SHIER
MANUFACTURER OF
Lumber, Lath & Shingles
BRACEBRIDGE, ONT.



"BUILD TO-DAY THEN, STRONG AND SURE, WITH A FIRM AND AMPLE BASE."
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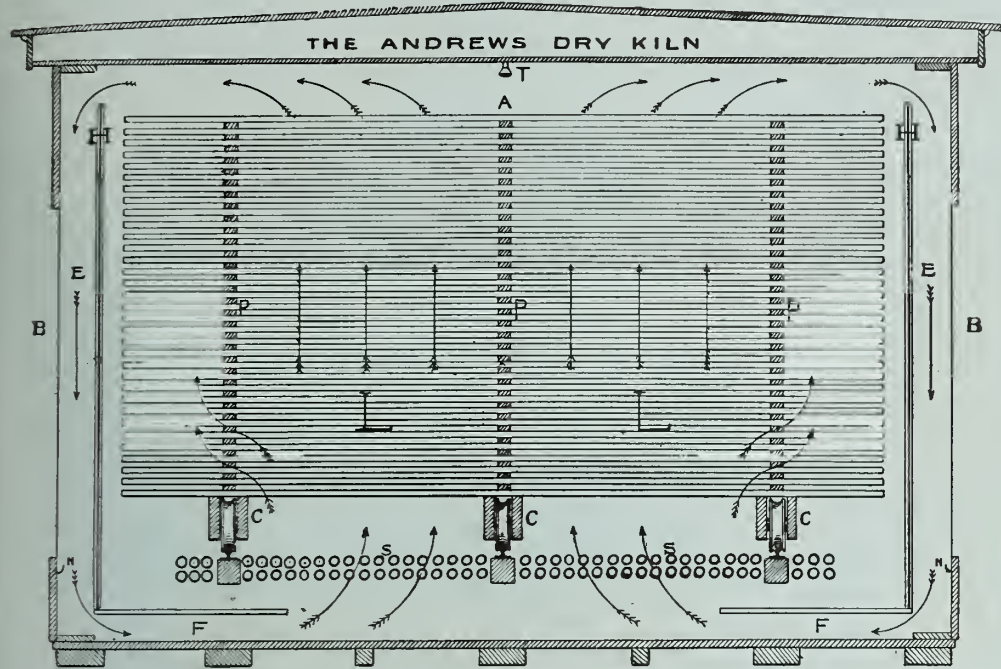
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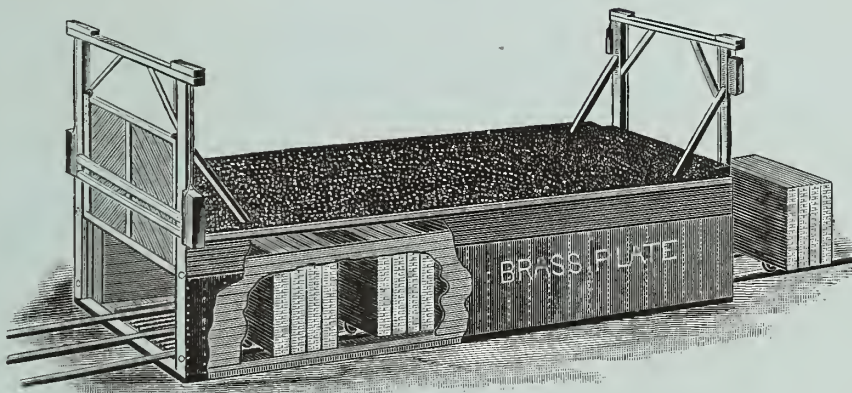
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Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

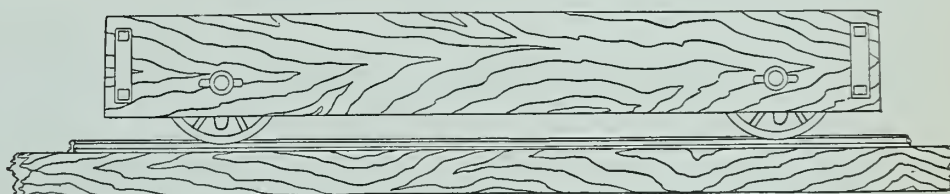
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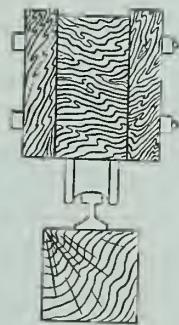
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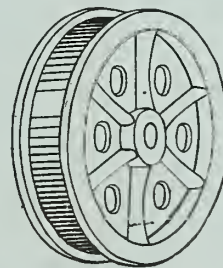
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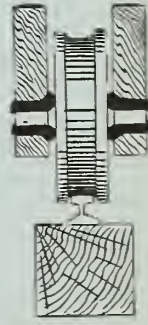
SIDE VIEW OF CAR AND TRACK.



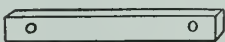
DOUBLE FLANGE WHEEL ON SINGLE TRACK



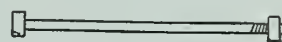
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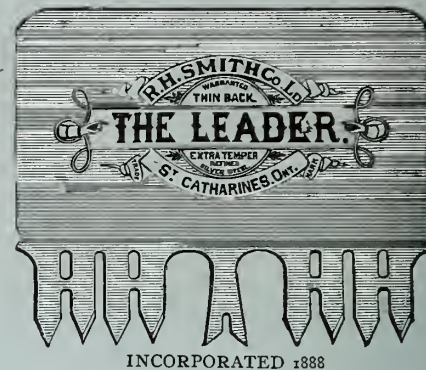
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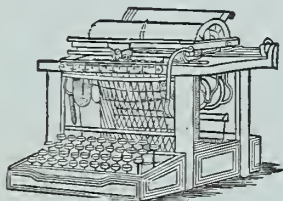
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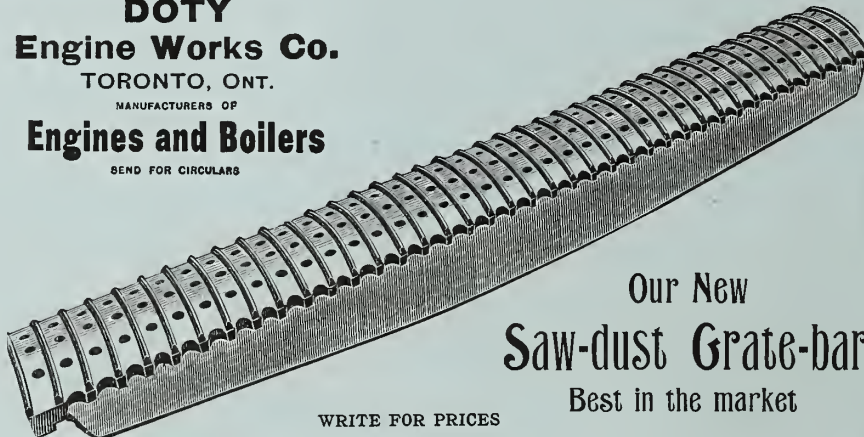
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WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIV. }
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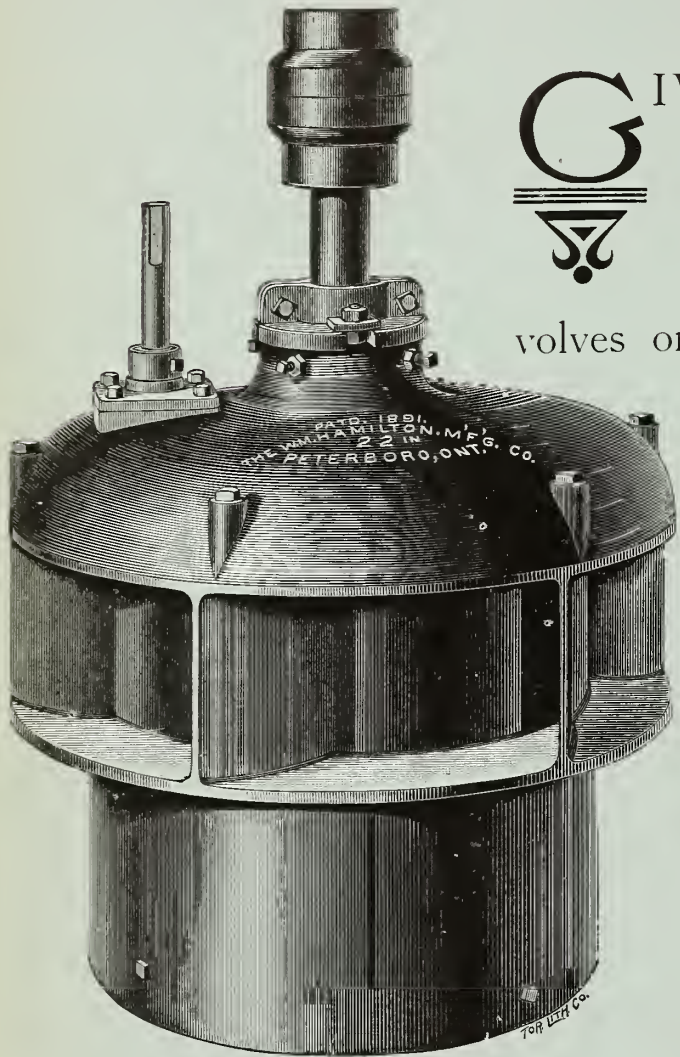
THE "BOSS" Patent Turbine Water Wheel



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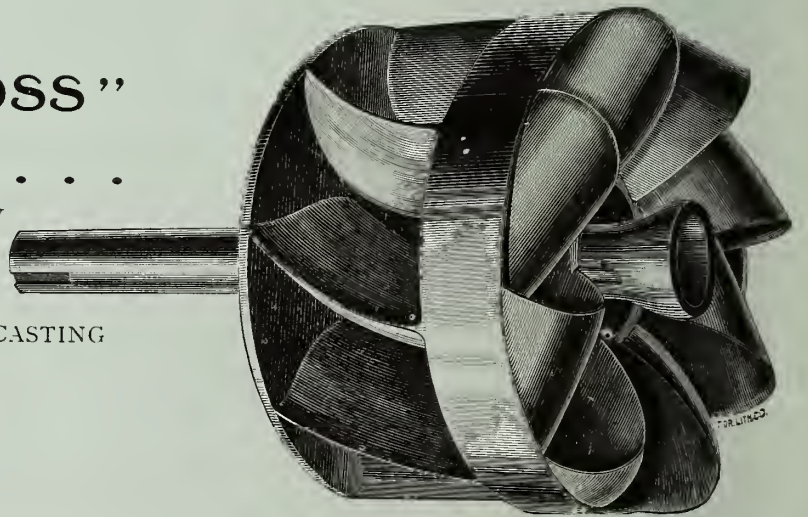
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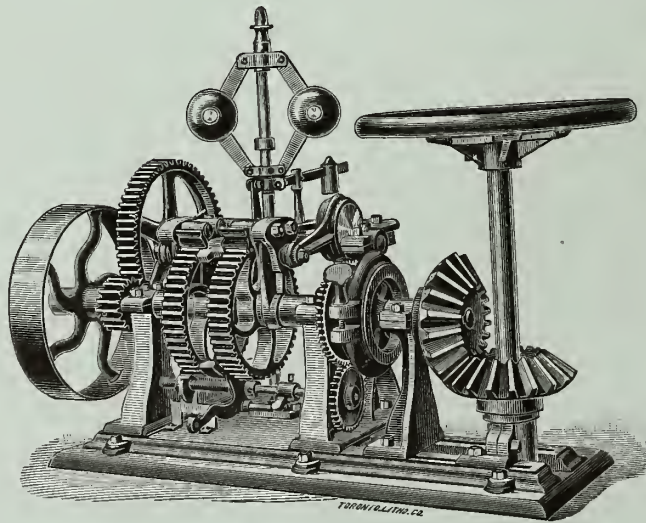
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DEFECTIVE MILL CONSTRUCTION AND OPERATION.

In my rounds, says J. H. Miner in *The Woodworker*, I find very few sawmills profitably constructed and arranged, though the aim was to have a perfect mill. I do not allude to novices in the business, but men of money and experience make these mistakes. Later they see and admit it, and if they build again these mistakes are not repeated, but even then broad mistakes are often made.

A man of experience and money built his third mill lately, and invited me up to see it, and I took occasion to visit the place. It was a fine mill—fire-proof boiler house and all the modern improvements. The mill was running nicely. My attention was first directed to the arrangement of steam pipe of main engine, an eight-inch pipe, which had a leaky expansion joint which could have been done away with in that length of pipe by connecting it right to the engine without the extra elbow. The engine was running rather slowly. Further investigation found a hot saw mandrel. Nothing would keep it cool. I found a 28-inch pulley on mandrel and a tight 20-inch belt on it. Right here was the cause. Had there been a 36-inch pulley on mandrel, the 20-inch belt would have run with 50 per cent. less tension to do the work.

The edger was set so close to saw that there was time lost in sawing long lengths. I made no further investigation, but saw a deficiency of 10,000 feet in the mill. I said the mill ran nicely; so it did, but to crowd the saw to what it should stand, the drive belt would slip, and to make it tighter would burn out the boxes. Sixty-inch 6-gage saws, 80 teeth, were used, and would stand right up to 12-inch feed in 12-inch cut, if the belt would hold it. The proprietor didn't seem to want over 45,000 out of the mill when it would have cut much more. A little defect to look at, and 10,000 feet short every day of the capacity of the mill.

In another mill a centre-crank engine was put in. The shaft was all on one side of the crank and only a bearing on the other side. An eight-inch shaft, full of pulleys, with a 3½ inch bearing on a disk crank pin. The result was a slight pound, and the chances of a hot wrist. Here "nursing" was unnecessary. The engine might have suited for another class of work, but the man got the wrong thing when he placed that style of engine for sawmill work.

In a large cypress mill, 60-inch bottom and 48-inch top saws were run instead of 72-inch bottom saw and 36-inch top saw. As no two saws can be made to track accurately, as large a lower saw as possible should be run. In this mill, and I venture to say in nine-tenths of all mills, the top saw ran in the direction of the lower, and in deep cuts had lines were made and valuable lumber spoiled. The mill man saw it, but after his mill was put in and a stock of saws on hand. He was familiar with smaller timber and made a "little oversight" in ordering his saws.

A prominent mill firm with a paid-up-capital of \$150,000, concluded its main engine had too much to do. Another engine was bought and placed, without "thinking" that the steam would be affected, as there was ample and a surplus. Result, no steam one-half the time. The engine was finally taken out. The president overruled the superintendent's views and had the engine put in.

A great mistake is often made in the power. A surplus should be put in, as progressive mill men are generally adding instead of diminishing. Small shafting and light belting is a great drain on many mills. Sawmill machinery has more break downs and delays than any other class of machinery. This is casting no reflection on the foreman, who is often on the lookout, expecting what he cannot overcome. The foreman often

gets no credit for what he foresees and claims ought to be done. A three-inch shaft was in use in a certain place. Nothing was thought about it until, in the midst of a rush, it gave way. The foreman insisted on a steel shaft, but it was not heeded; but it was put in later, after the second shaft was broken. In a change of line shafting a wood pulley 16 x 48 was put on. The pulley man and the superintendent overruled the foreman, who remarked that one month was the limit—and so it was. With the superintendent's careful watching that it was kept tight, it played out in five weeks.

The foreman is often criticised for "knowing it all" when he expresses a weakness of certain parts. There is a great difference between the man who takes the mill as it is, and makes out with what he finds there, and takes care of it though he knows what is weak, and the man who wants this, that and the other taken out because it doesn't suit his liking, when in reality it is a better machine or part than what is replaced.

The construction of the furnace and size and height of stack have much to do with the steaming qualities of sawmill boilers. It is not the size of the boiler that makes steam, but the furnace and stack with draft to burn lots of fuel, which in turn makes plenty of steam. It is astonishing the amount of money spent in experimenting in changing a mill. We note mills built to cut a certain amount, which, when completed, lack considerable of coming up to it; but after months of running, involving many changes and loss of thousands of dollars, the mill attains its capacity. Why cannot men of money and experience put up a mill that will at the start turn out what it was built for? In some cases mills are constructed and proportioned right, and from the start turn out their intended capacity. Such mills make money. A mill properly constructed throughout should run every day through a season, without loss of any time whatever from machinery or belting.

HEMLOCK FOR FLOORING.

A RECENT issue of the *Pacific Builder* contained the following interesting information and general comment on this subject: "The floor of the Clatsop county court house at Astoria, Oregon, is of native hemlock and was laid over thirty years ago. It is now in good condition, it is stated, although it has been subject to the severest usage. This is one of the best illustrations of the high value of native hemlock and demonstrates the superiority over the eastern species of the same tree. In our large buildings one of the most difficult features to obtain is satisfactory flooring. In the Oregon building according to specifications no joints were to have been made in the flooring in any of the offices. In consequence continuous lengths of twenty feet and upwards were sometimes required, which in hard flooring is almost impossible to obtain—at least without a very great expense. None of our native hardwoods could well be made to meet the requirements of such specifications. Whether or not eastern maple could have been obtained of the desired length and perfectly clear, was not demonstrated, for, as a matter of fact shorter lengths were used in the floors than were at first specified. Still in fine buildings unbroken floors are very desirable, and are much more enduring. If it should be found, therefore, on further experiment, that native hemlock will make a smooth, close and durable floor, the fact will generally be hailed with delight by our builders. It should not be forgotten that this wood has never yet been fully tested on this coast, but so far as it has been tested the results would appear to be quite satisfactory. It exists in abundance throughout Oregon and Washington and the timber attains a great size here everywhere. No difficulty would be experienced in obtaining flooring in any desired length from hemlock."

Hemlock is, as almost everyone knows, found also in great abundance in British Columbia, but it is in the opinion of leading lumbermen unlikely that much use will be made of the wood for flooring for many years to come. The hemlock, though otherwise durable, is somewhat apt to splinter on the surface with wear, being in this, as in certain other respects, inferior to cedar or fir, the supplies of which last woods are in British Columbia inexhaustible for generations to come. It is, however, possible that a modest use of native hemlock will gradually come to be made by B. C. lumbermen.

NEW ZEALAND LUMBER INDUSTRY.

THE timbers of New Zealand, says a writer in *The Northwestern Lumberman*, are as numerous as they are varied and beautiful, but those that have up to the present been brought into any commercial use consists of kauri, rimu (red pine), matai, kahikatea (white pine), totara, silver pine and black birch; the first of these, the kauri (*Damara Australis*) is the well known New Zealand pine, and its production and general commercial use has far exceeded in quantity any of the others as it excels them in value and superiority. History says that Capt. Cook, the great navigator, first discovered its merits, landing and obtaining kauri spars for refitting his vessels on the first voyage of discovery. The timber is light in color and regular, with the grain displaying fine, even markings. Kauri is only excelled by our southern pine. It is more silky than Quebec yellow pine, and takes a higher finish. It is stronger and more durable than the best red deal of the White Sea and Baltic. It is tougher and more elastic than American spruce, while it is more easily worked than the redwood of California. Boards of it can be obtained in long lengths and up to six feet wide without a knot or shake, and it may safely be stated that no other timber known is capable of being applied to such varied uses. Houses in New Zealand and Australia are constructed of it throughout from the shingles to the floor, internal work being left varnished to show its fine figure. It is also used extensively for railroad sleepers, bridges and wharf construction, and railroad cars, and is especially adapted for masts and deck planking of ships, many vessels being entirely built of it. It planes across the end of the grain as smoothly as with it, stains well and takes a high polish, being much in demand for church and counter fittings on this account. Its durability is unquestioned. Some of the early wooden houses built in Auckland fifty years ago of heart kauri are standing now, and the timber shows not the slightest signs of decay. Street blocks laid eight years ago on the Auckland wharves present few signs of wear. The kauri is indigenous to New Zealand and grows only on the province of Auckland between the 38th degree latitude south, and the north cape. It is the monarch of the New Zealand forest, in dimensions falling very little short of the giant sequoias of the northwest, many of the trunks rising to the height of 120 feet before the branches are thrown out. The tree is invariably found in clusters in dense bush and in mountainous country, this fact adding materially to the difficulty and cost of production. The tree is of phenomenally slow growth and has attained an immense age before it is felled. The rings on some of the large trees number over 1,000. To the credit of New Zealanders be it said, that these patriarchs are generally spared for the benefit of future generations.

HOW TO DO IT.

THE hardness of steel tools may be much increased by making them white hot, dipping them repeatedly into sealing wax until cold, and finally touching them with oil of turpentine.

CHIMNEYS AND DRAFT.

IN this age of science and practical development, the form, size and proportion of furnaces and chimneys, to be the best for steam users, take a prominent place, says Noah J. Tilghman, in Power. All desire the greatest amount of steam from the ton of coal or cord of wood as the case may be.

I here propose to deal with practical results, regardless of theory, but wherever practice and theory go together, they shall be accepted. I think best to state my experience first as the shortest way to the facts. Although a mechanic and somewhat acquainted with water power and machinery before, I had my first experience with steam engines and the setting of steam boilers in 1854, when my partners and I bought an engine, two boilers and other machinery. We asked the builders to give us a draft for the setting of the boilers, the shape and style of furnace and chimney, size and proportions, and also to send us a competent man to superintend the work. When all was ready we went to work, but in a short time steam failed to keep up as at first. We cooled down to find the trouble, and found the boilers covered with a scale of soot. We cleaned it off, and went on as at first, but soon had to clean again. On examination we found that the part of the boiler plate just over the bridge brick walls was clear of soot, while between the bridge walls the boilers had the scale of soot. We had been instructed that these several walls (Fig. 1) were to form smoke chambers, and as the unconsumed gases or smoke would roll over the walls into the spaces, it would ignite again and make extra heat. Then a consultation was held. I proposed filling the smoke chambers with brick work up to the top of the walls. This was objected to, upon the ground that the builders ought to know the way to do it. Then I agreed to make the change at my own individual expense, and if not for the best, to change it back as at first; so I made the change. The boilers never had to be cleaned afterward, and steamed better than ever before.

The plan given for the chimney was that it should be at the base, inside, 24 inches square, and steadily enlarged as it went, which we were told would increase

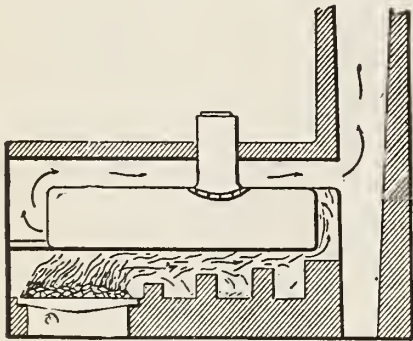


FIG. 1.

the draft. The chimney we never changed, but have found that it was not the best shape. This idea was in the mind of the old chimney builders for private residences to burn large sticks of wood. I have been a steam user ever since I began in 1854, but I have never gone back to the bridge walls.

In the year 1880 I was contemplating the building of another mill and wishing to know all about furnaces and chimney drafts, I went to several of the cities and visited the machine shops and chimney makers. But no one could tell me anything definite in regard to the matter. Quite a number said, "I can not say positively, but the opinion is that the chimney should commence with a suitable size at the base and enlarge somewhat as it goes up, but do not know all about it." So I went home knowing no more than when I left. But with a determination to know, I made a smokestack 12 feet long, 10 inches square at one end, and 12 inches square at the other end, and then built a furnace to set it on, with a fixture so that two men could reverse it, first large end up, second small end up. With fire in the furnace, we reversed it a number of times, and found that with the small end up it produced very much the stronger draft; when the large end was up, the draft was weak. This was the result at each and every trial. So with me the old draft theory was exploded.

I then examined many chimneys of various styles, from the mud and ladder to the fine brick, and inquired and found how each acted. With many of the fine chimneys with narrow smoke entrances, the draft was poor, and they smoked inside of the house too much for the comfort of the inmates. The mud ladder chimneys (the four sides of which had a frame much like ladders, the rounds being very close together and plastered with mud), were generally about three feet at the ground and

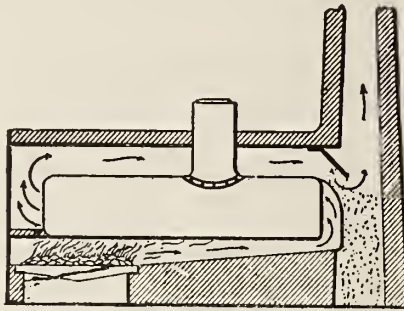


FIG. 2.

two feet at the top, and from 15 to 20 feet high. These chimneys all possessed an excellent draft, notwithstanding the high arch under which the wood was burned.

I then set about the building of the contemplated mill. I made my own plans for the brickwork but was warned and warned again by the bricklayers that my plan would not do. But the work was completed. Fig. 2 shows a side view, and, although not perfect, it will show the shape and style.

I will give a few facts that may be of interest to your readers. There were 20 feet of grate bar surface. At the farther end of the boiler the smooth brick pavement was seven inches from the boiler. The chimney at the base inside was 34 inches square; at the top it was 24 inches square, and 53 feet high. We used various kinds of fuel, green sawdust from a sawmill, chips from a planing mill, cordwood, hard and soft coal, coal dust, and other wastes from coal and wood yards. The draft was good, and the results all we desired. Here is the reason for it: first, if you fire a pile of wood the volume of blaze and heat will be greatest just where the flame leaves the wood, then it assumes a cone shape, so the nearer the inside of the chimney comes to fitting the tapering blast, the better will be the draft. If the chimney should be too large, or enlarged at the top, the cold air will fall in around the top and small end of the blast and weaken the draft.

A ship, to sail lively, must be free from barnacles. Water will run more rapidly through a smooth box or rough passage. So it is clear that from the grate bars to the top of the chimney the whole way should be made as smooth as possible. The bridge walls are a hindrance to a draft, and no good.

In the successful experiment just given, I placed a sheet of iron at the point where the blast enters the chimney, giving it a downward dash, which successfully threw all the sparks into the base of the chimney, from which they could be taken in the absence of firing. This chimney never sent out fire, although having a good draft.

A GOOD PLAN.

A SET screw on a moving part is a most dangerous thing, particularly if it is within reach. Why are they made to project about an inch above the surface? Why so much thread on a fixture that is as permanent as a key? We were taught many years ago to leave set screws only two threads above the surface of the job, and we think it is a good plan yet.

A SUCCESSFUL BUSINESS YEAR.

The sales of Magnolia Metal have been so enormous and the business so prosperous in the last year that the Magnolia Metal Co.'s stock has been recently made \$1,000,000.

Of the lumber situation in California at the present time, the San Francisco Iron and Wood wittily remarks: It takes ten mills to make a cent.

PICKARD & ROWAN, HEPWORTH, ONT.; We like the LUMBERMAN very much.

NOTES AND QUERIES

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column. Correspondents need not give their own name for publication, but it must be made known to the editor. Anonymous communications will find space in the waste basket.

No. 39. ABOUT STEAM BOILERS.—It matters little all that has been written on the management of steam boilers, some new problem is continually coming up; or some one who has not learned on the particular point which is his worry seeks information. We give our readers the benefit of the following remarks by a writer on practical subjects in Power: "A boiler should never be blown out while hot. Portable tubular boilers should stand at least twelve hours after the fire is out before letting out the water. Stationary boilers should stand long enough to allow the brick walls to cool. I usually let my boilers stand from eighteen to twenty-four hours, and by so doing I keep the dirt in solution and can wash it out without any trouble. In case there is any scale I use a boiler pick and a good scraper. When there is any lime in the water, the latter should pass through a good purifier before being pumped into a boiler. Water should never be pumped into a boiler cold, as it makes hard firing and allows all the impurities in it to enter the boiler. In case the scale is hard, and can not be easily removed, saturate it with coal oil before filling the boiler with water. This will loosen the scale without harm to the boiler. A good skimmer properly constructed and properly attended to will do much toward keeping a boiler clean, but cannot be relied upon. All boilers should be opened and thoroughly cleaned once in two weeks, as they are often burned by relying on some automatic device for keeping them clean that fails to do its work."

No. 40. HOW TO PLACE THE KNOCK.—Mr. Robert Grimshaw, who always talks about mechanical matters in a thoroughly practical manner, and ever with a heap of good sense, makes this observation on how to place the knock: "I have been watching you, Bagley, with a great deal of interest as you have been endeavoring to locate that knock by sound. Whatever place you go to it seems to be in some other. Now, while your hearing is very sharp, there are some senses that are more acute than hearing, and feeling is one of them. Just take one end of this long lead pencil between your front teeth and rest the other end first on one place and then in the other about the engine, and you will find that you can hear through your teeth better than you can through your ears. You can detect differences in the amount of vibration that the ears would not be sensitive to, and you will not be fooled by the reflection of the sound from the walls, as in the case of hearing. I think that you will agree with me that the piston-head is a trifle loose on the rod, and that is a matter about which you will have to wait until shutting-down time before you can do anything. The lead pencil located it at once, and you were in doubt as to whether it was in the cross head or in the cylinder as long as you trusted to hearing."

AN ELECTRIC SAW GRINDER.

IF there is any work connected with running a saw-mill more unpleasant than filing a saw, says "Quirk" in The Tradesman, I have failed to find it. Emery grinders have been made, but the best are too expensive to come into general use. The inclosed sketch shows what I fancy would be a convenient little machine for



ELECTRIC SAW GRINDER.

sharpening and gumming saws. As is well known, an emery wheel must touch a saw very lightly, or it will so heat the saw as to soften the steel, or as we say, take the temper out. The power therefore required to drive the wheel would be insignificant, so that a very small electric motor would answer the purpose. The entire machine need weigh but a few pounds, and being self contained, would be portable and easily applied to a saw without taking it from the mandrel. If these few words and sketch lead to something useful being brought out, I shall be glad.

VIEWS AND INTERVIEWS.

Size of
The Tire.

As a means of providing improved roadways it has been made a law in Massachusetts that the tires of wagon wheels shall not be less than three inches in width. It has been found that the narrow tires cut deep into the road and soon render it quite unsafe for travel. Other vehicles come along and get into the same rut and cut further down aggravating the unfavorable conditions already existing. With the wide tire not only is the danger of cutting up the road reduced to a minimum, but the constant passing over of waggons with wide tires has the effect of a roadway roller of pressing down the material of which the road is composed and making it more solid and firm. Massachusetts' example could be followed by other municipalities with profit to the roadways of the country, and all who travel over them. Business men of quick intuitions will be ready to make another application of Massachusetts' example in the construction of roadways. A large number of men do not succeed in business. One reason is that their methods are constructed on the principle of the narrow tire vehicle. They have cut down into a rut and in that rut they travel everyday. Such a thing as taking a new course where more progress might be made they never think of, for they are in a rut. The subject can be amplified ad nauseam, but the shrewd dealer will make his own application. The other fellow will remain in the rut and—stick.

Elms and
Poplars.

A writer in the Gentleman's Magazine, a well-known British monthly, has been writing of elms and poplars. He tells us that the famous "Crawley elm" has a circumference of nearly 61 feet—more than double that of the one at Lutry, which visitors at Lausanne will readily remember; while the Wych elm (*Ulmus montana*) has its largest representative in Renfrewshire, with a circumference of over 18 feet. The largest beech tree is said to grow on the "brash" formation in Cornbury park, Berkshire; while the "chalk" of Sussex is held to give its favorite nourishment to the celebrated beech woods in that county. The sycamore, or greater maple, finds its largest example in Cobham park, with a circumference of 26 feet, only two feet less than that of the sycamore of Troas, near the source of the Rhine. In line trees, on the other hand, we are easily beaten by the trees of Villars, near Freiburg, and of Prilly, near Lausanne, the latter of which has a circumference of nearly 40 feet. The Lombardy poplar (*Populus dilatata*) is a characteristic tree of many parts of England, as well as of the plain country of France. It has the great advantage as a hedgerow tree of not intercepting too much of the sun's rays from the adjoining crops. Grigor, I think, mentions that a villager at Great Tew, Oxfordshire, lived to see trees which he had himself planted attain a height of 125 feet. But the finest poplar tree of St. Julien, near Troyes, far surpasses these, with a circumference of 41½ feet.

The Labor Problem
Clearly Stated.

What is the solution of the labor problem is a question that confronts one wherever one turns. Social economists have, and are, proposing many remedies, but the trouble grows apace. In every land, monarchical, republican, or otherwise, the unemployed embrace a large percentage of the population. What is to be done to relieve the pressure? Mr. Carroll D. Wright, a statistical writer of some eminence, has recently written of conditions in the United States. Relatively, his figures may be made to apply to Canada. His propositions are certainly clean-cut, vigorous and forceful. He estimates that in the States there are over twenty-two millions of persons who are "engaged in gainful occupations." "Subtracting from sixty-five millions," he says, "most of the wives and daughters, all of the decrepit and aged, and all the school children, it will be seen that we are a work-a-day nation in its shirt sleeves. The class of do-nothings because they have too much money, and the other class of do-nothings because they are born loafers, do not count for much either in number or influence." But Mr. Wright adds "that not only is the aggregate of those who do work on the increase, but also the aggregate of those who are willing

to work, but can't get it. There's the rub. That is the reason for the existence of labor organizations, for strikes, and for the unceasing conflict between capital and labor. The remedy? There is but one. Skilled labor is nearly always in demand. A first-class workman is seldom out of a job. It is necessary, therefore, for the new generation to cease dawdling, to give up being jacks of all trades, to give themselves vehemently to some special department, and to become master of that. There never yet was a time when it was not easier to earn \$4 a day because you are worth it than to earn \$1 a day at work which a million others can do as well as you."

Market
Quotations.

A question has been raised as to the position a trade journal should take in reporting current market quotations. The man who would like to use the trade journal to bull or bear the markets to help his own particular schemes is known to the conductors of trade journals whatever branch of trade they may represent. It need hardly be said that the journal that would allow itself to be used by this class would soon lose the confidence of its readers. There is another class, however, who, though not taking so bold a position as the class we have already named, yet think there is less or more market news that should be given publicity very gingerly for the general good of the trade concerned. These people, says the Iron Age, hold that the trade journal "should hide bad news as long as possible and proclaim favorable developments with the utmost alacrity. When an advance has taken place it must be chronicled at once. A decline must be kept back, and quotations must remain stationary while still a stray buyer exists who has not heard of the lowering in prices. The true office of the trade journal, according to these critics, is to constitute the rear guard in retreat and the picket line in advance." All such suggestions are based on the theory that there is something to be gained by withholding part of the truth. Someone, it is true, will probably be a gainer in cases of this kind. It is equally true that someone will be a loser. A trade journal can never successfully perform its mission occupying the position of a mere time-server. As the journal from which we have already quoted further says: "We hold that it is the function of the commercial reporter to seek the truth persistently and diligently, and to present it fairly and candidly. If developments are unfavorable, the sooner their significance is generally understood the better. It will make the weaker sellers quicker to abandon hope and will make buyers more watchful of their opportunity, thus aiding in steadying the markets. The idea that secrecy was the only safeguard of merchants and manufacturers has been long since abandoned in all the markets of the great staples, such antiquated business methods being now regarded as childish. No one attempts the dangerous and unsatisfactory role of being the special guardian of any commodity, protecting it against untoward declines, or blowing it up during the brief days of expansion."

A LOGICAL METHOD OF DRIVING.

THERE is still another method of driving, writes R. J. Abernathy, that, I believe, is being used by some makers of machines, and that is to drive one fast and one slow role with the same belt, using two driving belts, one on each side of the machine as before described. In the judgment of the writer that is the most logical, legitimate and only really mechanical way of driving a machine. It is simplicity itself, does away with all annoyances and complication; gives a steady, regular and uniform motion with an unvarying differential; and I unhesitatingly say to millers that when all other conditions are equal, roller machines so driven should have the preference. I know of no reason why all machines, no matter what or by whom made, cannot be so driven.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890. Address, CANADA LUMBERMAN, Toronto, Ont.

PERFORATED BELTING.

ONE of the most unreasonable and unscientific fads, says a writer in the Mechanical Journal, is perforated belts. The advantage claimed for them is preventing air from accumulating between the belt and the face of the pulley, thereby decreasing its frictional power. This point is particularly urged in cases where a belt is run over a small pulley at high speed.

This theory is not only nonsensical, but contrary to all the laws which govern belt friction. The power of a belt, under any circumstances, depends entirely upon three conditions, viz.: speed, tension, and the amount of surface in contact. Belts running over small pulleys at high speed, under all ordinary conditions, must necessarily work to a certain disadvantage as compared with those running at comparatively slow speed.

In the first place, in order to obtain the best results, a belt should embrace at least one-half the circumference of the smaller pulley, but it is most frequently the case where high speed is necessary, the driving pulley is four times or more the diameter of the driven, and unless the conditions are such as to admit of considerable distance between the centres, and the slack side of the belt running towards the top of the driven pulley so as to utilize the sag of the belt, the speed will be such that not more than one-third the circumference of the small pulley is embraced; under such conditions it is highly essential that every atom of the surface of the belt as well as the pulley should be utilized.

It is a fact well known to belt users that the smoother and more perfect the face of a pulley is, the greater will be the friction power of the belt. There is no class of manufacturers who are more fully aware of this fact than the manufacturers of wood pulleys, and one of the greatest secrets of their success is in the careful manner in which their pulleys are finished. Why do the belt manufacturers always recommend running the grain side of a belt next to the pulley and claim an increase in power by that method? Simply because the grain side of leather, especially when new, is smoother than the flesh side, consequently presents a greater amount of frictional surface in contact with the pulley.

Now if the compressed-air theory is correct, and by perforating the belt and thereby depriving it of a part of its frictional surface, adds to its power, why not then, upon the same principle, perforate the face of the pulleys also by drilling holes in the rim?

The fact is plain to a close observer that the reason why fast running belts over small pulleys are more inclined to slip than those running at less speed, is not due to atmospheric influence, but entirely due to centrifugal force. A belt at high speed, passing over the face of a small pulley, is subject to the same laws which govern the pulley itself. The natural tendency of all revolving bodies subjected to speed beyond the tensile strength of the material of which they are composed, is to separate, and the several pieces to fly off at a tangent from the centre. Anyone who will observe the cylinder belts of a planing machine when running at its regular speed, will observe that the top or leading side of the belt, as it approaches the pulley, instead of hugging the pulley at the moment of approach, is thrown upward and outward; in some cases, especially where the belt is slack, it will not come into intimate contact with the pulley until it has passed a considerable distance beyond the top of it. This decrease beyond the arc of contact fully explains why such belts are more liable to slip over the face of the pulley. Wherever this decrease in the arc of contact and consequent decrease in friction becomes such that it is not equal to the resistance offered, the belt will run off, and the perforating of such belts can not possibly have any other effect than to decrease its frictional surface and consequently decrease its frictional power.

Where both edges of the belt are free and nothing prevents the air that may be carried along from escaping at each side of the pulley, how is it possible for sufficient air to accumulate under the belt to force it away from the face of the pulley? For this reason there can be no possible advantage in perforating a belt for either fast or slow speed, and the sooner that theory is abandoned the better. There are other claims for belting that are equally absurd.



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J. S. ROBERTSON, - - - EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

THE FORESTS DISAPPEARING.

In the LUMBERMAN of last month we published a brief extract from a paper by Mr. Henry Gannett, geographer of the United States Geological Survey, in which he attempted to prove that the beneficial influence of forests was not nearly so important as generally supposed, and that in some cases this influence was detrimental. He made the further remarkable statement that "there is to-day nearly, if not quite as great an area of woodland in the United States as when the white man set foot on our shores."

These statements are so contradictory of the general principles that underlie the foundation of forestry, and besides are so far afield from the generally accepted belief that the forests of both the United States and Canada are becoming rapidly depleted, that they are being vigorously challenged on different hands. Some of our lumber contemporaries have reminded Mr. Gannett of the old adage, "Shoemaker stick to your last," and whilst admitting his abilities in his particular field do not hesitate to intimate that he may get lost in the woods when he gets out of that field.

The most important and valuable reply to Mr. Gannett, has come from Mr. B. E. Fernow, chief of the Forestry Division of the Agricultural Department. He says: "Briefly, regarding the status of our timber supply Mr. Gannett says that the wooded area of the United States covers approximately 1,113,060 square miles (712,320,000 acres); that each acre produces annually forty cubic feet of wood; that we consume annually between twenty billion and twenty-four billion cubic feet of wood (accepting the estimate made by the forestry division); that, therefore no shortage is to be feared, but that no overproduction of from six billion to ten billion cubic feet of wood takes place on this area. With more knowledge than Mr. Gannett in these matters, I venture to say that his figures exceed at least ten times the actuality. How he arrived at his extravagant figures I am at a loss to understand. Since the question of wood growth per acre per year is of consid-

erable general interest, I will explain its condition more fully, and cite statistics of more than usual reliability, which are fortunately available to me.

"In the well-managed forests of Prussia (some 35,000,000 acres), largely stocked on poor land, the average total production of wood per acre for a long series of years has not been more than twenty-one cubic feet, but this includes branch wood, brush and roots, which are not used in this country. Of this only fourteen per cent., or hardly three cubic feet, represents material fit for the industrial uses, and we should add that in the United States firewood is also made from such material.

"In the government forests of Prussia (some 8,000,000 acres), exemplary in their management, the production reaches nearly sixty cubic feet. The highest wood production in German forests is reported from Baden (only 4,330,000 acres of forest), with somewhat over fifty cubic feet of wood per acre per year. Assuming also a larger per cent. of sizable timber, namely, twenty per cent., we would find the annual production per acre of such material as we are in the habit of using at the rate of ten cubic feet per acre. Competent writers on the subject who believe that the Government report understated the annual growth have calculated the same to be as high as fifty-five cubic feet per acre (see report of Forestry Division, 1886, page 184), of which they assume twenty-seven per cent to represent wood over three inches in diameter. Even this larger figure would bring the product of sizable wood to less than fifteen cubic feet per year. And I repeat, what is well known, that in the United States we hardly use the smaller sizes even for firewood.

"To come now to the more familiar measurements, we can figure out the possibilities or probabilities in the following manner, leaning toward extravagance rather than conservatism: Any lumberman acquainted with the various forest regions of the United States will admit that, leaving out the exceptional conditions on the Pacific Coast, a cut of twenty thousand feet (board measure) per acre from our virgin forests would be an absurdly large average estimate.

"This would represent, with excellent practice in the preparation of the material, say two thousand cubic feet of round forest grown timber; and since the trees cut to yield such material are at least one hundred and fifty years old—they are in reality mostly over two hundred years old—the annual production would appear under such conditions as fourteen cubic feet per acre per annum, or about as much as the most advantageous results reported from well-managed German forests.

"Apply this most extravagant figure to the area as given by Mr. Gannett, and we find that our consumption at present is from 10,000,000,000 to 14,000,000,000 cubic feet in excess of what the area could possibly produce as an annual crop, or that we are cutting into our capital to the extent of more than fifty per cent. of our consumption, and not, as Mr. Gannett would have it, that we are laying up for the future, which, by the way, increases the demands for raw material at the rate of more than thirty-five per cent. every decade."

The similarity in lumber conditions in the United States and Canada and the attention that is at present being given to the question of forestry in this country will give Canadian lumbermen an appreciative interest in this discussion, and especially in regard to the data of conditions in Germany furnished by Mr. Fernow.

A NEW MARKET FOR LUMBER.

DISTANCE is a trifling barrier to the expansion of trade in the present day. Custom house lines may shut out near neighbors from doing business with one another, but in an age when the railroad, the telegraph and the telephone are bringing the most distant peoples into near and immediate contact, one with the other, having the market and the goods for the particular market and all else is easy going.

Nor need clime, color or nationality be a barrier to business. Business knows none of these distinctions. Business knows business only. A suggestion has come from the United States Consul at Jerusalem that it may be expected before long that America will find in this ancient city a large and profitable market for lumber. Jerusalem has a boom on, or coming, that bids fair to eclipse anything ever achieved by the boomiest of western towns,

"The foundation of the coming 'boom,'" says the Tradesman, "is a sentiment not less potent than that which sent all Europe upon the Crusades to that shrine, with the additional elements that there are many more people interested now than there were during any of the crusades. They are far better clothed, fed and have more money in their scripts. Besides the means of transportation now is as far ahead of that age as steam ships and railroad cars are ahead of walking. The entire Christian world, Protestant, Catholic and Greek, is agitating the project of holding a grand reunion or jubilee on the 19th centennial of the greatest event in the world's history. The idea is likely to spread like wild fire. There are no religious, political or financial interests to oppose it. The Turkish Government certainly will not, because such a gathering will afford the only opportunity the future offers to relieve it of impending bankruptcy and dissolution. The Armenians and the Asiatic Jews will hail it as a possible relief from ages of persecution.

"It must be borne in mind that Jerusalem is now in direct railway, steamship and telegraphic communication with all the civilized world. Since the completion of the railroad from Joppa, shrewd financiers have anticipated something like the proposed celebration and the price of lands and lots in the holy city and the region round about have increased enormously. In his official report the United States Consul in that city says: "Two acres that were sold in 1890 for \$250 per acre, sold in 1891 for \$750; twelve acres, sold in 1890 for \$435 per acre, sold in 1892 for \$2,178; seven acres sold in 1886 for \$363 per acre, sold in 1892 for \$6,534; two acres sold in 1886 for \$1,200 per acre, sold in 1892 for \$3,000. These are not in one section or locality, but in different directions about the city, varying from one-fourth of a mile to one mile distant from the town."

"There is no great available amount of timber within two thousand miles of the city. If the sentiment, or craze, develops to the extent it bids fair to do, the World's Fair, based on a sentiment purely worldly and in honor of a lucky adventurer, will pale into insignificance. There will be lots of hotels, dwellings and other dwellings needed to accommodate the vast crowd of visitors who will attend the anniversary, the pilgrims who will hereafter annually visit the city and the hordes of people who will take up their permanent abode in the city, or near it, when the facilities for procuring a sustenance makes living there possible. The holy city is about on the same parallel of latitude as Brunswick or Darien, Ga., and the timber of the South is about as near and more easily available than the forests of Germany, Sweden or Norway.

"It may appear to many that this a long look ahead, but seven years will decide the matter, and if there is a prospect for a shower of mush it is well enough to have our bowls right side up. Strange things are liable to happen any time during this rushing age.

EDITORIAL NOTES.

THE Timber Trades Journal, of London, Eng., in an article of considerable length says that "there is no doubt that this is the timber of the future. The forests of these gigantic pines are practically inexhaustible, and the facilities for bringing it to the markets of Europe are daily increasing. It stands well in water, and is being largely used in the Canadian ship canals for the lock gates where their own yellow pine is available. Speaking of the British market, we think it is merely a question of time before it becomes as common in use as pitch pine."

SOME time ago the lumber dealers of Manitoba formed a combine to fix prices and prevent cutting that threatened only to bring disaster on all concerned. Two dealers of Gretna refused to be bound by these conditions and broke prices with the result that they have been boycotted and cannot get supplies. The farmers are indignant, as they cannot get lumber unless they go to Plum Coulee, or Morden and pay the combination price. The shoe pinches the farmer when the bears get control of the wheat market and deprive him of his profits. It does not seem that more than a reasonable price has been charged for lumber in Manitoba, and why should dealers be asked to do business for nothing or at a loss? It is not what others appreciate.



A CITIZEN of Ottawa, who foresees litigation from the farmers in the neighborhood of the Capital whose live stock are excluded from their usual watering places by the sawdust, suggests that lumbermen might use their sawdust and other mill refuse to their great gain by employing it to smelt our rich iron ores instead of having to pay heavily for throwing it into the river in the shape of damages and costs to Antoine Ratte and these aroused farmers.

* * * *

A gentleman just returned from Lake Joseph says that, from present appearances, the hemlocks will be almost annihilated within a few years. Last year an insect appeared which destroyed the foliage of the trees on the shores and islands in the north and centre of the lake. This year the trees have not leaved out again. Many thousands of them are dead and present a pitiable appearance. Among the islands which have been devastated are Chief, Governor's, Elsinor, Laurie, Clareview, Badgerow, Cameron's, and nearly all the islands to the northward. It does not appear that anything can be done to stop the destruction. It would be worth while for the Local Government to send up an entomologist to ascertain the extent of the injury and the probable duration of the visitation, as, if the insect is not checked, the loss will mount into millions.

* * * *

There is a deal of truth in Robt. Grimshaw's argument that the man who keeps his engine nice and clean also keeps it in good order. Says he: "The man who goes over and round and about his engine every day; whose eyes rest upon every square inch of its surface, and whose hand touches every square inch, can keep it in order better than he who simply squirts oil in or at the oil holes when he happens to think of it, or has his attention called to the necessity of oil by the squeak. A hot place is readily detected by him who goes often all over his engine, and can be better attended to if discovered when a trifle warm, than if allowed to get hotter and hotter until it squeals, or until the bearing seizes. It is the same way with steam leaks and trifling tracks; the man who goes all over his engine once or more every day knows of them before they get serious, and attends to them at once. Leaks are incompatible with brightness. Brightness must be had, hence leaks must be stopped at once when they are discovered."

* * * *

These are blunt but sensible words from "Job," a writer, who hits off many good things in the Lumber World: "Look out for that class of workmen who may be named 'slambang' men, the men who never lay a tool or piece of stock down, but throw it down. Such men may be safe enough to work in powder and dynamite factories, but they are a costly nuisance in a wood-working shop, where fine and easily marred materials are used, and where most of the tools are keen-edged, delicate and complicated. What a lot of damage such men can do! The other day, in a large organ factory, I saw one of the 'slambang' men throw down a large chisel. It landed on a pile of delicate and costly veneers, rolled off and fell edge foremost on some bits of iron. Result: Two of the pieces of veneer were split, and one or two others marred. The chisel's edge was damaged. Fortunately for the establishment and unfortunately for Mr. Slambang, the foreman saw the incident—it was not an accident—and he sat down and figured up the damage, made a record of the incident, and sent it to the office. The proprietor happened to be in a not wholly amiable mood. He summoned the 'slambang,' and a scene followed. The end of it was a vacancy in the force. Should workmen be fined for incidents of this kind? Why not? If it be against express orders to throw fine tools around, why should not damages caused by throwing them around be paid

by the workman who throws them? What is there in the relation between employer and employee that makes it the duty of the employer to stand the damages inflicted in this way by this class of men? If I, either carelessly or deliberately, smash a \$5 tool, why should my carelessness cost my employer \$5? Mr. Employer, what think you?"

* * * *

A correspondent of the Scientific American tells the following interesting story: "In Guilford, Vt., are two beech trees that have grown into one. About twenty years ago I cut the top from one and made a slit in the other. I then united the two trees. It proved a successful graft, and when I saw them last fall they were about eight inches through at the base, distance apart about three feet, place of union about seven feet from the ground. Near this tree on the bank of a small stream stood a willow. I trimmed it, cut off the top, bent it over the stream and planted the top of the tree in the opposite bank. It rooted and in the summer the stream flows under a beautiful green arch. Another has its branches bent down and planted in a circle about its base. Another was twisted about an old fence rail, and as the rail has decayed, the tree resembles a giant cork screw. Another tied in a knot has grown so large that it would be no easy matter to untie it. On this same farm is an apple tree whose fruit is a union of the golden sweet and greening, or, in other words, the same apple is part sweet and part sour. It was produced by grafting the buds of a golden sweet and greening into another tree, and the singular part of it is the sweet part is covered with the yellow skin of the golden sweet, while the sour part, like an Irishman, sticks to its green."

* * * *

A resident of the Pacific Coast, Col. G. H. Megquier, of Anacortes, Washington territory, has invented a new method of packing shingles that promises to revolutionize the time-honored square bundle of shingles apparently everybody has been satisfied with up to this time. Mr. Megquier's method of packing is to place twenty-one rows of shingles on end with the butts down, thus bringing all the butts together. A two inch strip is then run along on each side, top and bottom, and firmly bound with the usual wire strip, making a bundle 47 $\frac{3}{4}$ inches long, by about ten at the thick end and about four at the small. The cost of wire strips would be about 2 $\frac{1}{2}$ or 3 cents more than by the old method, but the great saving would come in from the greater number that could be packed in a day, at least 10,000 to each packer. Another saving would be in the increased capacity of the dry houses. Then in the matter of shipping, a further saving is effected, as at least 20,000 more shingles can be loaded in a car, and in the case of a cargo the capacity of a ship is increased by 1,000,000 up, a point of no small importance in water shipments. Altogether Mr. Megquier's improved bundle seems to fill the bill for the most economical, most compact and liandiest bundle of shingles that has yet been introduced. Patents have been applied for, and the new shingle bundle will be subjected to the test of practical experience which, if successful, will insure its use all over the Coast.

* * * *

The people of the Georgian Bay district are feeling keenly the effects of the free export of logs to the United States. Doubtless it is true that with them the question is more local than general. This circumstance does not, however, lessen the injury that they believe is being done to that part of the country which to them is home. A writer in a recent number of the Manitoulin Expositor, published in Little Current, expresses himself in vigorous fashion, thus: "Last year 175,000,000 feet of lumber was exported in logs, and this year there is to be 455,000,000 feet taken over to the States, showing that the annual shipment is increasing. This may look well, but how does it affect our country? In the first place, if these logs had to be manufactured in this country we would hear the busy hum of sawmills all along the shores of the Georgian Bay, see thousands of men busily engaged in these mills, see the little towns and villages in a prosperous condition, and everybody enjoying life. Again, the fact of logs being towed across the lakes materially affects the shipping and the work to be done by Canadian vessels. This means a

heavy loss to vessel owners in our country. As it is now, our mills are to a great extent shut down, and standing there rotting, men are complaining of hard times and no work, the merchants in the towns have great difficulty in getting a living, and on the whole the country is dead. No wonder that there is such an exodus from our country of the best of Canada's sons. Canada's forests are fat now, and if this state of affairs exists much longer instead of using the flesh we will have to pick dry bones. By all means put on the duty and save our pine."

* * * *

Ex-Mayor James Dollar, of Bracebridge, Ont., one of the best known lumbermen of that district has decided to remove to San Rafael, Cal. Mr. Dollar has endeared himself to the people of the locality not only because of his enterprise as a business man, and likewise as a citizen, but for his many sterling qualities as a man ever interested in the individual welfare of the people. Mr. Dollar made one of the best chief magistrates that had occupied the mayor's chair in that thriving northern town. Mr. Dollar was re-elected at the last municipal contest but he resigned some time ago owing to the fact that he had intended removing to San Rafael, Cal. "I spent most of the winter there," he said "and it is now about a month since I returned home the last time. Now I am going there for good." "You find a difference in the climate there, don't you?" "Oh, yes. Snow is unknown and the season is two or three months ahead of ours. When I left there haying was in progress, the grapes were fully formed and the grain was almost ripe enough to cut." "What about Bracebridge? Is it on the down grade that you are leaving?" "No. Bracebridge will hold its own always. It has all the modern improvements for a first-class town. I am interested in the lumbering business in California and can do better living right there than so far away here." It will be remembered that in August last Mr. Dollar lost a brother, John Melleville Dollar, also a resident at one time of Bracebridge, but who for some years before his death had been engaged in lumber in San Rafael, Cal., where he died. Mr. James Dollar goes to the same place.

* * * *

The owner of a combined saw and grist mill explains the continued and steady demand for lumber even at times when other staple commodities are depressed in this way: "Any conditions that will reduce the consumption of cotton goods—the actual wearing of them out—for a given time has no effect upon the actual consumption in future. In other words, because a man may be short of shirts this year does not imply that he will have to buy a double supply or wear out twice as many next year. And so it is with breadstuffs. Because a famine prevails this year is no sign that one who has been on short rations can consume more than the normal amount next year. He said, in his section where corn is high priced and scarce, the people economized by giving their stock more grass, their chickens less dough, and their dogs less bread. And so on through the list of necessities until it comes to lumber. He claims that it requires every year a constantly increasing supply of lumber to keep on repairs and build new structures. Conditions may be such that the necessary repairs and new buildings cannot be made at once, but they will have to be made later on. What cannot be done in this line one year must be done next year or later, and the deficiency must be made up some time. In this respect, he says, lumber has the advantage over all the other necessary products. Again, he claims that lumber is not held in such large stocks for long time and consequently the old stocks on hand do not effect trade and prices to near the extent that is felt in grain, sugar, cotton and tobacco. Who ever heard of any concern selling futures on lumber or trying to corner the lumber market." The gist of his argument is that lumber is the safest of all personal property to handle. His ideas are original, to say the least, and, we are inclined to think, very sound in the main. It is very comforting to think that any deficiency in the consumption of lumber one season will serve to make it increase the next.

VANCOUVER SAW MILL, VANCOUVER, B.C.: Your paper affords much pleasant and profitable reading.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

UNMISTAKABLE activity is present among the lumber mills of the Chaudiere this summer. Whilst it is hardly likely that the mills will find it necessary to work over-time, they will all be kept busy until the close of the season. Taking J. R. Booth's mill, employing 950 men, Bronson & Weston's over 600, and Buell, Hurdman & Co.'s 500, we have in these three mills alone employment furnished to more than two thousand men, some indication of the size of the lumber industry in this district. The strike that I intimated last month as possible among the mill hands has, it is expected, been called off for the season. No further trouble has occurred over the rising of the Ottawa, and outside of an occasional mishap that may come in the way it is now plain sailing with all the mills.

IMPORTANT LUMBER SUIT.

The case of Mackey vs. Canada Lumber Company, which has been before the courts since April, 1892, has at last been concluded. This is a case, it will be remembered, where the Canada Lumber Company, through W. C. Edwards, M.P. one of their directors, bought from W. Mackey, of Ottawa, certain logs lying in Bucksnot lake and creek, at a certain price, the measurements to be that on which duty was paid and according to the returns of the government; terms nine months. At the end of nine months a note at nine months with six per cent. was agreed to, and delivery of the logs taken. A count of the logs was taken afterwards, the plaintiff says without his knowledge. When the note came due it was protested, the Canada Lumber Co. claiming in justification that there was a shortage in the number of logs. On this note the plaintiffs sued and have now received judgment for full amount with costs. Defendants appealed the case to Toronto with the result that the first judgment was a few days ago confirmed with costs of appeal.

INDIFFERENT LENGTHS.

A very large tow from the Gatineau river comprising at least 25,000 of the best logs that came down by that stream have arrived for W. C. Edwards & Co.'s mill. The tug Rockland takes them from the mouth of the Gatineau, where they have for some time been collecting to the mill at the Rideau Falls. So far all the logs sawn in the Edwards mill have been owned by the Shepard & Morse Lumber company.

A new circular saw mill is soon to be erected beside the present mill at New Edinburgh over the Rideau Falls for W. C. Edwards & Co. It was only last winter that the present fine mill of this firm with two band saws and one gate was erected, but the growth of their business has been such that they feel warranted in planning for a further increase of mill plant. The new mill will not be so large, but several large circulars which will do fine work will be put in, and lumber cut will be done very fine as well as very fast. The firm will also build a large sash and door factory on the island beside where the drying house used to be.

Opposite the Rideau falls on the northern banks of the Ottawa river, on the site of the old Gilmore mill, one of the most complete sawmills which has yet graced the valley of the Ottawa, has just been completed. The power requisite to drive the machinery will be generated in a small building beside the mill where boilers and two engines, each of one thousand horse power have been put in. The mill will thus be run altogether by steam. The piling grounds have all been laid out very nicely and levelled where it was necessary. The lumber will all be carried to the different sections of the yard by means of seven tramways radiating from the mill. The mill's cut will be about 250,000 feet per day, and it will be ready for operation in about a month.

OTTAWA, Can., June 24, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE financial situation is being discussed with no little anxiety by lumbermen in this State, and yet so far as the lumber trade is concerned there is no occasion for anxiety. The trade have all they can do and in some respects it is a difficult matter to meet fully and as promptly as they would like the calls upon them for lumber. This is a fortunate position and will likely carry lumbermen over a period that in other lines of trade may prove troublesome. The general situation is not healthy. And just what the outcome may be it is not easy to say. No class of business men, perhaps, have a larger grasp of the financial affairs of the country than lumbermen. All their transactions lead them to view affairs in a large and liberal light and their counsel in the adjustment of financial troubles is invariably found valuable and desirable.

SHRINKAGE IN SHIPMENTS.

The following is a comparative statement of the shipments

of forest products from the Saginaw river for the past three years for the season to June 1:

	1893.	1892.	1891.
Lumber.....	48,848,000	76,293,000	87,116,000
Lath.....	2,450,000	980,000	2,963,000
Shingles.....	3,215,000	9,329,000	9,650,000

These figures taken at their face show a decline in lumber shipments this year of 28,000,000 feet over the corresponding date of 1892 and 37,000,000 less than in 1891. These conditions are explained in part by the smaller volume of lumber on the docks on the opening of trade this season and to the fact that the railroads are becoming more and more a strong competing element in the carrying of lumber.

BITS OF LUMBER.

Hemlock bark peelers are in demand, as high as \$35 a month being offered.

A raft of 3,000,000 feet has reached Cheboygan from Georgian Bay.

At Manistee trade seems unsettled and some of the mills talk of shutting down.

The new Emery & Holland mill at East Tawas is cutting lumber and doing lots of it.

McArthur Bros., of Saginaw and Toronto, report a good trade in cubic timber and prices somewhat improved on a year ago.

The Gilchrist mill at Alpena is to be operated day and night. Mr. Gilchrist is bringing over upwards of 25,000,000 feet of logs from Georgian Bay.

The tug Saugatuck has a contract to tow 10,000,000 feet of logs from the Georgian Bay to the Cheboygan Lumber Company's mills, at Cheboygan.

Isaac Beringer, the big Michigan lumberman, who has large lumber interests in Canada, is cruising around the Georgian Bay waters in his beautiful yacht Wapiti.

S. G. M. Gates, of Bay City, has purchased a camp outfit, 4,000,000 feet of logs and 20,000,000 feet of standing timber in the Georgian Bay district of Stewart & Cook, the consideration being reported at \$60,000. The stock will come to Mr. Gates' mill here.

The steam barge Orion, of Toronto, with two barges Muskoka and Waubushery have been at Manistee loading rock elm timber for Quebec. Buyers buy this piece by piece in the standing tree, and carry their own axmen with them, and manufacture it to suit their own trade. It is a peculiarity of the English timber trade that it won't use sawn stock, but must have it hewn.

Canadian logs in considerable quantities are commencing to arrive at Bay City. The first raft reached that point May 16, the second May 27, and the third on June 7. The rafts average 4,000,000 feet each. One was for the Saginaw Lumber & Salt company, one went to Green & Braman's mill and the other to C. C. Barker. Other rafts have been coming along regularly since this date.

Great excitement was occasioned at Bay City and West Bay City by the announcement that the tug Winslow had foundered in Canadian waters, because it was known that Benjamin Boutell, of the Smith & Boutell Towing Company, and S. O. Fisher, the West Bay City lumberman, were on board the tug. The anxiety, however, was allayed as soon as Mr. Boutell could reach the nearest telegraph station, by his wiring to his family that he and Mr. Fisher were safe. The tug Winslow ran high up on a shoal, but was only slightly damaged, having since been released and returned to Bay City. Messrs. Boutell and Fisher have also returned safely.

SAGINAW, Mich., June 26, 1893.

PERSONAL.

Among recent illustrious visitors to J. R. Booth's big saw-mill, Ottawa, Ont., were the Governor General and Prince Bonaparte.

Mr. J. C. Wells, of the Whitefish River Improvement Company, Little Current, Ont., was among the callers at the LUMBERMAN office a week ago.

Mr. J. T. Whyte, a popular employee of Barnett & Co., lumbermen, Renfrew, Ont., was united in marriage a fortnight since to Miss Julia Raymond, of Allumette Island.

The LUMBERMAN was pleased to receive a call during the month from Mr. W. J. Mathers, of Neepawa, Man. Mr. Mathers is a director of the Western Retail Lumberman's Association, an organization embracing a membership of nearly two hundred.

James Playfair, lumber dealer and general merchant, Sturgeon Bay, Ont., intends going to the World's Fair in a unique way. He will board his private yacht at Sturgeon Bay and sail right through to Chicago. He expects it will take about four weeks to reach the Windy City.

TRADE NOTES.

The band mill is moving lively, if one may judge by the work being done at different points by the Waterous hand mill. We learn that before the accident in J. D. Shier's mill, to which reference is made by the Waterous Engine Works Co. in another column, that Mr. Shier had cut about 800,000 feet of lumber and was delighted with the band mill, the lumber being true and smooth, and according to his own statement he was saving \$30 per day with the band mill over and above the circular. The Baker Lumber Co.'s mill started about three weeks ago and is running very satisfactorily, they unfortunately, however, have a rack feed to their carriage and this interferes somewhat with the off-set of the carriage so that occasionally there is an untrue board. They are, however, obviating this by putting in a Prescott steam feed supplied them recently. Mickle & Dymont's band mill starts this week. They have been running a circular for the past two weeks and the lumber cut by that is piled on one side of the railway track, and the Baker Lumber Co.'s lumber is piled on the other side of the track, and the quality of the lumber can readily be compared. On examination it will be found that the Baker Lumber Co.'s stuff is cut much truer and smoother than that cut by the circular and much more handsome in appearance. The Waterous Company have also shipped recently to Wm. Sutton, late Sheriff of Bruce, to Victoria, B.C., a heavy circular sawmill outfit, steel carriage, opening 5 feet from the saw, the knees actuated by a screw 5 in. pitch. They also shipped a large sawmill to Mr. Sucksmith, of Kalso, B.C., and are shipping to the Hudson River Pulp Co. for the Hall & Neilson mill at Three Rivers, Que., one Prescott steam feed, one three block girder steel carriage, four large friction pulleys and two sets of gang slab saw irons. This week they start in Montreal, a No. 2 band mill for J. K. Ward, with power feed and heavy steel band carriage.

PUBLICATIONS.

H. R. A. Baughman, of Indianapolis, Ind., has issued a fourth edition of his "Buyer and Seller," a hand-book of lumber tables that are invaluable to anyone engaged in the lumber trade. Besides rather more than one hundred pages of these tables considerable space is given up to rules for flooring and siding, suggestions when ordering lumber and much other practical matter. The book is bound in full leather, limp, with finger index.

"The Georgian Bay" is the title that James Cleland Hamilton, M.A., L.L.B., has given to a neat little work of nearly 175 pages, recently published by James Bain & Son, Toronto. The contents-matter of the book was originally embraced in a series of historical papers read before the Canadian Institute, Toronto, and deals with the inhabitants, mineral interests, fish, timber and other resources of this district of country so familiar to every lumberman. A well executed map and numerous illustrations embellish the work. Mr. Hamilton holds the pen of a picturesque and ready writer, and possesses an intimate acquaintance with literature that gives a delightful freshness and beauty to many of the scenes pictured in the book. Those who may as yet have found it inconvenient to visit the Georgian bay territories will easily find themselves transported there in imagination when reading this book. Mr. Hamilton's position as chairman of the historical section of the Canadian Institute is a guarantee of the value of the present work from an historical point of view, which is perhaps the most important.

"Ontario's Parliament Buildings, 1792 to 1892," by Frank Veigh, private secretary to the Commissioner of Crown Lands, is a book that will take prominent rank among the historical works of the Dominion. It was an opportune time, just on the completion of the magnificent pile in the Queen's Park, in which all Ontarians, and indeed Canadians from whatever province, have much pride, to take a retrospect of provincial legislation for the past century. Mr. Veigh has shown large industry in the collection of historical incidents and facts related to the subject matter of the book and has compressed into this one volume a mass of data that will be new to not a few Canadians, who doubtless consider themselves well-read on the affairs of their country. To the general reader the information will be, in no small measure, entirely new, and to everyone it must be very valuable. The book is written in an easy, sketchy style, that marks whatever comes from Mr. Veigh's pen, and contains many illustrations of prominent legislators and of different places of meeting of the legislature during the past hundred years. Bound in cloth and well printed. The Williamson Book Company, publishers, Toronto.

Trade Review, St. John's Nfld.: Lumber is arriving in large quantities daily, both from Canada and the local mills. Owing to the number of new buildings going up the demand is very brisk, and the price is still stiff.

THE NEWS.

ONTARIO.

—J. F. Lillicrop has opened a lumber yard at Lakefield.
 —Wm. Grier, of St. Patrick, is putting shingle machinery into his sawmill.
 —Harmon Gilmore, shingle and planing mill, Vittoria, has assigned to J. H. Johnson.
 —White & McCreary, sash and door manufacturers, Arnprior, have assigned to Ephraim Mohr.
 —The C. Beck Manufacturing Co., Penetang, have their two mills running to their fullest capacity.
 —A log came down the Gatineau river drive for Gilmour & Hughson, which measured 3 feet 10 inches in diameter.
 —J. McLaren & Co., Wakefield, are having a survey made with a view to having a branch of the G.T.R. run up to their mills.
 —Carruther & Shaw's shingle mill at Penetang, is doing a large business. It is contemplated fitting the mill up as a complete planing mill.
 —McLaren's mill at New Edinburgh has commenced running. The mill is not a very large one, there being only four gate saws together with some circulars, but it has always been remarkable for the large cut that it makes.
 —Log driving in the vicinity of Deux Revieres is about completed for the season. Wm. Fitzsimons, agent for J. & B. Grier, has delivered a fine drive of dimension timber at Gordon creek, and G. A. Fraser has come forward with a drive from Antoinne creek.

—The Keewatin Power Co., capital \$1,000,000, incorporated by Alex. Fraser, lumberman, Westmeath; Wm. Gibson, M.P., Richard Fuller, Hamilton; John Mather, of Ottawa, and W. H. Brouse of Toronto, to furnish hydraulic and electric power from the Winnipeg river and establish factories, dwellings, and so forth, is gazetted.

—A large number of men are engaged in Eddy's old planing mill at the Chaudiere removing the floor to make ready for the putting in of machines for a paper mill. The building is a very large one and it will take a long time to fit it up and have it ready for work. The water power will have to be changed around and new beams put in some places.

—Capt. W. H. Kelly, well-known as the former skipper of the tug Matilda on the Ottawa river, but now of Montreal, has completed the purchase of some 1,600 logs, lying at Little Moose creek, from the Casselman Lumber Company. These will be made into boards and will be shipped by the Canada Atlantic Railway, via the South Nation river.

—Seaman & Newman, of Warton, have built a large raft of square timber for the approaches of the Canadian Soo Canal. Its entire length is 180 feet, 25 in width and about 14 feet deep, 11 feet of which is under water. It contains 750,000 feet of hemlock square timber and is built in two cribs, so bolted together that it will be almost impossible to break it up.

—W. C. Reid, lumber merchant, of Fergus, was committed for trial at Guelph, on a charge of attempting to buy counterfeit money. The case was worked up by Provincial detectives Rogers and Greer, upon information furnished by Major Percy Sherwood, of the Dominion police. Two of Reid's letters to "A. B. Morgan," a supposed New York green goods man, were returned to the dead letter office and a decoy letter from the detectives had the effect of landing Reid.

—Sad is the case of William Reardon, a man who has been in the hospital at Toronto since February and who is probably disabled for life. He was sent here from the mills of the Ontario Lumber Company in Western Algoma with both feet frozen. Reardon lost the use of his feet in saving a French-Canadian boy from being frozen to death shortly after the deep snows settled on the lumber woods last winter. The lad ran away from the mills, but was tracked and followed some sixteen miles by a few of the men who knew he would freeze to death if he stayed away. The boy was recovered but Reardon had his feet frozen. There were no medical appliances at hand and when the man's feet thawed out some of the toes had to be removed by his fellow workers with ordinary tools. He grew worse and had to come to the hospital, where nearly all the toes were amputated. He is there yet and will be a cripple for life the doctors say.

QUEBEC.

Zepherin Perrault, builder, Montreal, has assigned, owing about \$18,000. He was a railway contractor until two years ago, when he started up as trader and builder.

The White Wings Ship Company, has been formed at Quebec with a capital of \$12,800 to build a wooden vessel of 350 tons to trade to New York, River La Platte, Rio Grande do Sul and other South American ports.

—A lumber dealer in a moderate way at L'Assomption for the last five years, Oswald Chaput, has arranged a cash composition with his creditors on liabilities of about \$4,000. He is reported to have been before unsuccessful, while at Valleyfield in the grocery business.

—A despatch from Three Rivers says: The lumbermen of this locality are highly incensed at the delay in obtaining their lumber for sawing owing to the slowness of the officials in having the various bonuses distributed. It is also owing to the action of the federal government in curtailing the allowances of cash, generally voted for lumbering operations on the St. Maurice. Heretofore \$11,000 has been voted, but this season only \$6,000 are allowed. The lumber operations at the mills have been put back for more than two weeks.

NEW BRUNSWICK AND NOVA SCOTIA.

—W. H. & J. Rourke, lumber dealers, St. Martins, N.B., have compromised at 50 cents on the dollar.

—The steam sawmill, owned by Levi Dinsmore & Sons, and recently burned at Noel, N.S., will probably be built this summer, as only half of the season's logs are cut.

—The Forest Holme has sailed for Garston with a heavy cargo including 1,834,716 feet of deals and battens, 55,710 scantling, and 136,965 lath. She was loaded by W. M. Mackay.

—The mills at St. Martins, N.B., are all at work. White, Fownes & White got their drive of 4,000,000 out, and are running night and day. Mosher & Co. got out 2,500,000 and other smaller mills about 1,000,000.

—Nathaniel Wilson, a well-known lumberman and farmer of McNamee, Parish of Ludlow, N.B., was found dead at his log landing, near his home. The deceased was alone, putting in a landing of logs when he was struck on the head with a skid and instantly killed. His dead body was found by two young men. He was about 48 years of age and leaves a widow and three children.

—The Norwegian bark, Benjamin Bangs, reached Halifax, N.S., from Vancouver, B.C., after a voyage of 165 days. She has inaugurated a new trade—the shipment of spars, etc., from the Pacific coast to this region. Her cargo, consigned to Bentley & Fleming, is valued at \$25,000, and the freight was \$11,000. It consisted of 194 Oregon pine masts, 100 feet long and 12 to 30 inches in diameter; 50,000 feet pine plank; 30,000 feet pine flooring; 80,000 feet red cedar; 50,000 feet spruce flooring; 250,000 red cedar shingles and 10 monster pieces pine timber 45 feet long.

FIRES AND CASUALTIES.

FIRES.

—Schlieauf Bros.' stove factory, West Lorne, Ont., was totally destroyed by fire 20th ult. Loss about \$4,000.

—The building and machinery of Davidson & Hay's mill at Cache Bay, Ont., was badly damaged by fire a few weeks ago.

—C. P. Holton, lumber and sash factory, Belleville, has been burned out. Loss about \$8,000; insurance \$2,000. Mr. Holton has been a great sufferer from repeated visitations of fire to his property. It was but nine months ago since the big fire took place in his lumber yard, whereby a loss of \$17,000 was incurred. He will at once rebuild and resume business.

CASUALTIES.

—R. Manning, employed on the Rathbun Company's drive, fell off the boom above the slide at Kinmount, Ont., and was drowned.

—Michael Cleary had both legs broken while working on Fraser's drive on the Petawawa, Ont., death following the severity of his injuries.

—A man named Augustin Royer, a millman at Bertrand's sawmill in Clarence township, had three fingers cut off by the circular saw.

—Joseph Dube, a laborer, while at work at Hortubuisse's mill at Casselman, Ont., had one of his arms accidentally cut below the elbow.

—A young man named Drake, whose home is at Baysville, Ont., was drowned a week ago in the south branch of the Muskoka river with a gang of men driving logs for Mickle & Dymont.

—Alexander McDonald, employed in Mickle, Dymont & Sons' sawmill, Gravenhurst, Ont., received severe injuries while attempting to put a belt on a pulley. His head and arms were badly cut and bruised.

—Herman Woodland, 15 years of age, had his clothing caught by one of the chains in Booth's mill, Ottawa, and before he could extricate himself was drawn against a circular saw and killed. A verdict of accidental death was returned by Coroner Mark's jury.

—Albert Hein was drowned at Eganville, Ont., whilst endeavoring to draw back a log that had lodged on the face of the dam into the mill pond.

—A riverman named L. Cole, and hailing from Dacre, Ont., and working on McLachlin Bros.' extensive drive near Eganville, had his arm jammed between a rock and the end of a log, almost severing it. It was afterwards amputated.

—Frances Paron was drowned near the Quinge rapids on the Ottawa; and Thomas Newall, while trying to run the rapids of the Madawaska on a sawlog forfeited his life for his foolhardiness. Both men were employees of Bronson & Weston.

STRENGTH OF SHAFTING.

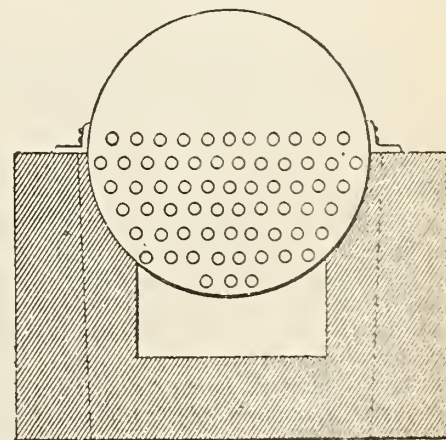
IT is generally pretty well known that a shaft will transmit power in proportion to its running velocity, and, therefore, the faster a shaft runs the lighter it should be within reasonable limit. The use of extremely heavy shafting is not advisable under any circumstances unless actually needed to perform the work required. That there should be an ample margin of strength no one will deny, but shafting multiplies in strength so rapidly as sizes increase, that the unlightened are apt to make the selections much too large when aiming at only strength margin. To show how easily uninformed mechanics may make mistakes of that kind, it is only necessary to say that a three-inch shaft has nearly three and one-half times the transmitting strength of a two-inch shaft. None unaware of the fact would ever guess at that difference and may fall into the error of selecting a three-inch shaft to safely do the work of a two-inch.

THAT BAND MILL ACCIDENT.

THE Waterous Engine Works Co., Brantford, Ont., write of the accident that occurred at J. D. Shier's mill at Bracebridge: "The band mill was speeded by us when we left it in Mr. Shier's mill, at 390 revolutions per minute, and it had run in this way for six or seven weeks. The week previous to the accident Mr. Shier increased his boiler capacity and then speeded up his engine, and as a result the band mill was run 420 revolutions per minute. It was tested here to 450. An examination of the remains after the accident in endeavoring to ascertain the cause, revealed the fact that the governor belt was tightly twisted round the engine shaft, the lace holes being torn out at the ends. This was direct circumstantial evidence that the governor belt had broken and the engine had run away, increasing the speed to such an extent that the band saw fly wheel, already put to its limit or probably beyond, could not stand it. They were not sawing at the time, turning a log. The accident might have been avoided by having a stop motion on the engine, which would have stopped it immediately the belt broke. Mr. Shier's damages will probably not exceed \$500, and he will probably be running again inside of 10 days. What we wish to do is to correct the impression that the band mill was at fault. The accident was one that could have been avoided had proper precautions been taken with the engine, and one that is liable to happen at any time where the speed of the engine is uncontrolled."

BOILER SETTING.

HAVING seen a way of setting boilers which is new to me, I send the inclosed sketch, writes a correspondent of Power. The bridge wall is run up to within 12 inches of the boiler, and the opening is only 34



BOILER SETTING.

inches wide—being proportioned about as shown in the sketch. The boiler is 54 inches in diameter by 14 feet long. If the boiler is ever burnt or blistered I think it will be at a point just over the bridge wall. Besides, I am of the opinion that this setting materially reduces the heating surface of the boiler shell.

TRADE REVIEW.

Office of CANADA LUMBERMAN, June 30, 1893.

THE GENERAL SURVEY.

THE annual reports of the leading banks of the Dominion, which have been published within the present month, all speak in hopeful terms of the lumber trade. It is encouraging to remark that the general trade of the Dominion is reported to be in quite a satisfactory condition. No great expansion has taken place, but the leading trades appear to have gathered strength and are being managed on a careful and conservative basis. Of lumber, however, it is remarked that an increase has taken place, and whilst it is explained that the cost of the product will be greater than last year, owing to the increase in cost of supplies and a higher price paid for labor, this is more than offset by the advance in price. The manager of the Bank of Commerce makes use of these words: "Many of our customers have contracted for the whole of their summer's output; and, unless financial troubles in the United States interfere very seriously with consumption, a very much larger amount of money than usual will be returned to us for lumber alone." Continuing the report says: "The cut of sawlogs in the Ottawa district, and the stock held over from last season, are about the same as last season, but owing to the handsome advance in price the yield in money will be materially larger. Indeed, the output as a whole is said never to have been sold to yield a higher price. The amount of squared white pine timber is about the same as last season, while the waney timber is about doubled. At the moment the market is very dull and the outlook not so bright as for lumber. The market for deals, however, is all that could be desired. The conditions, both as to lumber and timber, in other districts, are not materially different, except that, apart from sawlogs cut in Canada by Michigan firms, to be sawn in Michigan, a considerable quantity of sawlogs taken out by Canadian firms have been sold in Michigan, instead of being sawn into lumber in Canada, as heretofore. It is to be hoped that before very long the demand from the east and better railroad facilities will make it more profitable to cut all these logs in Canada, instead of towing them across lake Michigan. Perhaps, indeed the scarcity of white pine lumber may have the effect of removing the duty within the next year or two."

The one remark of continued dullness in the local lumber trade is to be made. Building records show a falling off in Toronto of the volume of operations of half a million dollars in the first five months of 1893, as compared with a corresponding period in 1892. And contractors say that competition has brought down prices to such a figure that not in twenty years have the building trades been in a more unsatisfactory condition. In the other provinces, Quebec, New Brunswick and British Columbia, nothing remarkable is to be noted during the month.

UNITED STATES.

The one danger probably that menaces the lumber trade of the United States at the present time is a continuation of the panicky feeling that has prevailed in the republic for some months. Lumber itself is in a healthy condition, but a feeling of uncertainty cannot touch the finances of the country without the most stable and prosperous lines of business being affected. Lumber is not seriously crippled, yet the pinch is being felt and several good sized lumber failures during the month are causing some anxiety. Aside from this one influence the situation is encouraging. Mills are busy, the drives with a few exceptions are coming along nicely, and if orders have slackened off during the month much of the cut of the mills for the season has been already placed and prices keep firm.

FOREIGN.

Business in Great Britain, in the terms of Farnworth & Jardine's wood circular, Liverpool, Eng., continues quiet, the demand sluggish and values generally unsatisfactory. Stocks are quite ample and in some articles too heavy. The arrivals from British North America for the month of May are given as 14 vessels, 11,400

tons, against 17 vessels, 12,975 tons during the corresponding month last year, and the aggregate tonnage to June 1st from all places during the years 1891, 1892, 1893, has been 80,644, 87,400 and 72,626 tons respectively. Denny, Mott & Dickson, in their monthly circular say: "The apathetic tone, to which trades are becoming accustomed, continues. There is little encouragement to augment stocks on this side so long as the poor demand for consumption gives so little indication of improvement." No very encouraging intelligence reaches us from Australia, South America, or other foreign points.

HARDWOODS.

June has been rather a quiet month for hardwoods. So far as the United States is concerned the report is that neither buyers nor sellers are doing much, preferring to hold off and learn more of the possibilities of the future. In our own country there is nothing special to note.

TORONTO, ONT.

TORONTO, June 30, 1893.

Table with columns for CAR OR CARGO LOTS, TORONTO, June 30, 1893, and various lumber items like 1-4 in. cut up and better, 1x10 and 12 dressing and better, etc.

Table with columns for YARD QUOTATIONS, F. M., and various lumber items like Mill cull boards and scantling, Shipping cut boards, Scantling and joist, etc.

Table with columns for HARDWOODS—PER M. FEET CAR LOTS, and various lumber items like Ash, white, 1 to 2 in., Birch, sq., Basswood, etc.

OTTAWA, ONT.

OTTAWA, June 30, 1893.

Table with columns for Pine, good sidings, per M feet, b.m., and various lumber items like Pine, good strips, Birch, sq., etc.

QUEBEC, QUE.

QUEBEC, June 30, 1893.

Table with columns for WHITE PINE—IN THE RAFT, and various lumber items like For inferior and ordinary according to average, quality etc., For fair average quality, etc.

RED PINE—IN THE RAFT.

Table with columns for Measured off, according to average and quality, In shipping order, 35 to 45 feet, etc.

OAK—MICHIGAN AND OHIO.

Table with columns for By the dram, according to average and quality, 45 to 50 feet, 30 to 35 feet, etc.

Table with columns for ASH, BIRCH, TAMARAC, STAVES, and various lumber items like 14 inches and up, according to average and quality, 16 inch average, etc.

BOSTON, MASS.

BOSTON, Mass., June 30.—News has come to this port that logs are hung up in some of the eastern rivers for want of water and there are mills that fear they will suffer for want of supplies. Orders are not large, yet a comfortable trade is being done.

Table with columns for EASTERN PINE—CARGO OR CAR LOAD, WESTERN PINE—BY CAR LOAD, and various lumber items like Ordinary planed boards, Coarse No. 5, etc.

Table with columns for Spruce by cargo, SHINGLES, and various lumber items like Eastern sawed cedar, extra, clear, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., June 30.—Notwithstanding the financial depression, lumber remains active, shipments have continued satisfactory and prices steady.

Table with columns for WHITE PINE, and various lumber items like Three uppers, 1 1/4, 1 1/2 and 2 inch, Pickings, etc.

Table with columns for SIDING, and various lumber items like 1 in siding, cutting up, 1 1/4 in selected, etc.

Table with columns for SHINGLES, and various lumber items like XXX, 18 in pine, Clear butts, pine, etc.

Table with columns for LATH, and various lumber items like No. 1, 1 1/2, No. 2, 1 1/4, etc.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., June 30.—The continuation of the strike among the lumber shovers and the unsettledness in monetary circles have had a depressing effect on trade during the month, though not to the extent of causing any serious alarm. The workmen will themselves suffer most severely from the strike. So far as monetary affairs are concerned it would not be wise to say what the finality may be, but there is good reason to hope that no uncontrollable crisis is impending.

The lumber business is in the happy position of having its trade already pretty well assured for the season.

Table listing lumber prices for White Pine, Box, Shingles, Lath, and various sizes of lumber.

ALBANY, N.Y.

ALBANY, N.Y., June 30.—Shipments have kept up well throughout the month, and yet business is somewhat slack.

Table listing lumber prices for Albany, N.Y., including Pine, Shingles, and Lath.

SAGINAW, MICH.

SAGINAW, Mich., June 30.—No great amount of go has had any place in lumber this month.

Table listing lumber prices for Saginaw, Mich., including Finishing Lumber, Siding, Timber, Joist and Scantling, and Shingles.

NEW YORK CITY.

NEW YORK, June 30.—Considerable quietude and caution marks the market at the present time.

Table listing lumber prices for New York City, including White Pine—Western Grades and Lath.

The Canadian Lumber Company, at Elmira, N.Y., has passed into the hands of a receiver.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

IT is pleasing to be able to report that all the mills on the coast of British Columbia and Vancouver Island are busy.

Mr. H. L. DeBeck, of Brunett Saw Mill Co., has just returned from an extended trip through Manitoba and N.W.T.

AN IMMENSE SHIPMENT.

The largest lumber cargo ever shipped by a single vessel from a Pacific coast port was last week completed by Robert Ward & Co., limited, of Victoria.

COAST CHIPS.

Alex. Johnston, of the B. C. M. T. & T. Co. had his right hand badly cut by its coming in contact with a shingle saw in motion.

The Royal City Mills are working overtime to keep up with the demand for lumber, which has been fairly brisk of late.

Another logging camp is to be established by the Royal City Mills on Heming Bay.

There would seem to be no adequate reason why hardwood tree growing should not hereafter become a valuable addition to British Columbia's forestry enterprise.

NEW WESTMINSTER, B.C., June 20, 1893.

WORLD'S FAIR NOTES.

IN section 3, of the sawmill building, the Covell Manufacturing Company, of this city, has what it calls the biggest exhibit of saw sharpening machinery ever seen.

COMING SALES.

An important sale of crown timber limits in the province of New Brunswick is announced in our advertising columns.

STEAM PUMPS



Duplex AND SINGLE Steam AND POWER Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US



NORTHEY M'FG CO.

LIMITED

TORONTO - ONT.

A TIMBER PRESERVATIVE.

REMARKABLE success is said to be attained with a new process of preserving timber lately introduced in England. The agent employed is melted naphthaline, contained in a tank, in which the timber is immersed. The temperature of the bath is about 200 degrees Fahrenheit, or a little below, and is evenly maintained, the heat being derived from steam pipes passing through the tank. The timber is soaked from two to twelve hours according to the size of the piece. It is believed that wood which is thoroughly impregnated with naphthaline, which takes the place of the sap and water it expels, will have peculiar advantages in its susceptibility to polish, for which merely rubbing with a cloth will be sufficient. In India where, owing to climate and other influences, not only wood but other products are prone to sudden changes and decay, an experiment like the above is worth adopting.

ECONOMY OF GAS ENGINES.

AN electrical paper says that "the waste involved by the intervention of the steam engine, with the clumsy modes of raising steam and the clumsier ways of utilizing it, is apparent to any one who looks into the calorific value of fuel." That is a sort of preface to the statement that gas engines are "beating the steam engine, both in fuel consumption and in general economy." Then it proceeds, "It is to be hoped that some central station in this country may be induced, at all events, to try a supplementary gas plant or two for day loads or for emergency use." If the gas engine is so very economical, why use it merely for emergency purposes? The position of the gas engine is well understood, and users of steam are quite aware that they do not get the full value of the fuel; but no "electrician" has yet attempted to improve on the "clumsy method of raising steam" except the man who was going to use electricity to raise the steam that produced the electricity. He is still "going to."—English Mechanic.

PAINT AND SHINGLES.

THE Timberman remarks that it has always seemed that in the use of paint to preserve wood exposed to the weather, the fact that a shingle roof was omitted from the catalogue was invariably the rule. This idea or oversight was one of the things in which custom becomes habit, and because every one else did so, all the rest followed suit. It is safe to presume that the custom of leaving the shingle roof unpainted originated in its angular form being less exposed to the after effects of rain and snow. A little thought will show the folly of such a conclusion when remembering the frail nature of a shingle and the slight fastening it has. If paint would be useful to any weather exposed surface it would certainly be so on a roof. The fact goes without telling, and in the present style of suburban residences the roof receives its share of paint along with the rest of the building, thus at once combining the useful with the beautiful. It is certainly singular that painting of roofs has not always prevailed, and it adds much to the finish and character of the building to see the roof painted. When the thin, slender nature of the shingle is taken into consideration, it will be plain to every one that sun cracks will easily go through the shingles, and to that extent render it worthless. The only way to overcome this is to paint, and always keep the shingles painted.

NEW HARDWOOD MACHINERY.

SOME ingenious mechanisms for the working of hardwood have recently been introduced. One of these is a boring machine adapted to making holes for blind nailing in hardwood floors, which works automatically, and accomplishes the object in view most perfectly; that is, the stock is carried forward by a fluted roll,

and is stopped by a cam at proper distances from the boring of the hole by the bit which operates horizontally, the board being carried on an angle. Another efficient mechanism in this field is a hardwood flooring apparatus, which takes the rough stock, planes it on both sides and matches it, and has five cutting cylinders, the first having a flexible bar, which allows of the free passage of irregularities in stock and insures the presentation to the second cylinder of a uniform surface, and this followed by top, side and bottom finishing cylinders; the side finishing cylinders are equipped with a weighted chip-breaking bar, which prevents splintering the stock; the six feed rolls are nine and a half inches in diameter, being all geared, and the back rolls are placed beyond the last cylinder, thus carrying all stock clear through the machine—the largest size taking stock of some eighteen inches width by six inches thickness.

A MILL WHERE BELTS ARE NOT USED.

A NEW Belgium factory uses electricity to transmit its power instead of belting. The dynamo is of 500 horse-power, and forms the fly-wheel of the compound Corliss engine. The shop is supplied with sixteen motors, among them ten 16 horse-power, one 21 horse-power, and one 37 horse-power motors. Their average efficiency is 87.2 per cent. On some of these motors the load is very variable, and several are exposed to dust and dirt, so that with 90 per cent. efficiency of the dynamos, 98 per cent. of the conductors, 87 per cent. of the motors, the net result is 76.6 per cent. power delivered. As the lost work in belt driving is practically a constant quantity for all loads, or at least is usually considered to be, the power required to turn the shafting, pulleys, etc., at the normal speed when no work is being done on the machines, it follows that taking 79.4 per cent. as the final output in two cases, one of electrical and the other of mechanical transmission, we find that at a load of 20 per cent. the electrical system would still give 47.2 per cent. useful effect and the mechanical nothing at all. From careful experiments which have been made in actual practice, it has been clearly proven that to drive all the machines idle needs more power than to drive the shops in the ordinary course of work; whereas eleven electrical horse-power is required when driving all the tools idle, only about seven electrical horse-power is needed in ordinary work, of which four electrical horse-power is used to drive the shafts, belts, etc., alone; this clearly shows how small a part of the power produced by the engine is actually used in useful work at the tools.

Such satisfactory results of the application of electricity to factory driving must attract attention, and will doubtless lead to great changes in transmission. Whether in the case of large machine tools it would not be better to discard shafting and belts altogether and supply a special motor to each tool, is a question which must be settled for each individual case which may arise; the current could be switched on or off just as easily as the belt is now thrown from the loose to the fast pulley, and vice versa.

NEWS AND NOTES.

Fred. W. Bonness, a Minneapolis lumberman, is in New Brunswick, spending a few weeks with his brother, J. D. Bonness, of St. Stephen. Fred has been absent from the province for about 25 years.

It is stated that the property of the late John A. Morrison, of Fredericton, N.B., will not realize sufficient to liquidate the debts. For this reason his son, John A. Morrison, jr., has declined to accept the bequest of the will, which gave him the mill property contingent on his paying the debts. The mill property has been bought by James Murchie & Sons, of Calais, and Ned Murchie will move to Fredericton to take charge of the business.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

WANTED—A SITUATION AS FILER IN A sawmill. Have had nine years' experience with gang and round saws. Address "H," 3 Maitland St., Halifax, N.S.

WANTED—BY YOUNG MAN—SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care CANADA LUMBERMAN, Toronto.

LUMBERMEN

EXPERIENCED SHIPPER OPEN FOR ENGAGEMENT middle of May. Good bookkeeper and correspondent. Competent to take charge of mill. References furnished. Address "Inspector," care CANADA LUMBERMAN, Toronto.

RAILS FOR TRAMWAYS

NEW AND SECOND-HAND STEEL AND iron rails for tramways and logging lines, from 12 lbs. per yard and upwards; estimates given for complete outfit.

JOHN J. GARTSHORE,
49 Front St. West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with I.C.L., care CANADA LUMBERMAN, Toronto.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to P.O. Box 2144, NEW YORK.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, I. and II., all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long. Address all particulars as to dryness, quality, quantity on hand and price, to P.O. Box 2144, New York, N.Y.

AUCTION SALE

— OF —

CANADA

PINE TIMBER LIMITS

IN ORDER TO WIND UP THE AFFAIRS OF "The Georgian Bay Consolidated Lumber Company," the following Timber Berths will be sold by public auction in the City of Toronto, during the early part of August next.

Berths Nos. 44, 45, 60 and 61, each containing 36 square miles, more or less, tributary to the Wahnapitae River.

Berths (south halves of 41 and 49), each containing 18 square miles, more or less, situated on Lake Wahnapitae.

These Limits are in the District of Nipissing, on the North Shore of the Georgian Bay. The waters of Lake and River Wahnapitae empty south into the French River, thence into the Georgian Bay. The Limits give the right to cut all kinds of timber. The ground rent is \$3.00 per square mile, and the Crown dues are \$1.00 per thousand feet b. m. for pine saw logs.

Notice will be given later on of the time of sale, and the terms and conditions will be made known on the day of sale.

THE GEORGIAN BAY CONSOLIDATED LUMBER CO.,
24 King Street West,
Toronto, April 2nd, 1893. Toronto, Canada.

VALUABLE

Timber Lands

—AND—

Saw Mills

FOR SALE

AT PARRY SOUND

THE MILL IS SITUATED ON THE WATERS of Parry Sound, and has good shipping facilities. The largest vessels or steamers on the lakes can load at the lumber docks. The mill will cut about twenty thousand feet of lumber and twenty-five thousand shingles in ten hours.

There are about seven thousand five hundred acres of timber pine, hemlock, birch, ash, oak, spruce, basswood, etc.

The timber is free of dues.

Parry Sound is the terminus of the Ottawa, Arnprior and Parry Sound Railway, now in process of construction.

Price: Twenty-five thousand dollars.

Terms as may be agreed upon.

WM. BEATTY,
Parry Sound.

CANADA

(PROVINCE OF NEW BRUNSWICK)

SALE OF TIMBER LICENSES

Covering a large portion of the Crown Lands of the Province.

THE RIGHT OF LICENSE TO CUT AND carry away all classes of timber or lumber from the principal timber lands of New Brunswick, will be offered for sale at the Crown Land Office, Fredericton, N.B., on

Tuesday, August 29th, 1893

and following days.

The timber licenses to be sold will cover an area of about 4,400 square miles (or 2,800,000 acres) of Crown Lands.

These Licenses will be for one year, with the right of renewal for a term of 25 years from the 1st day of August, 1893, on fulfilment of all conditions of License.

Licenses will be offered at an upset price of \$8.00 per square mile, and conditions being complied with, may be renewed from year to year during the term, on payment of \$4.00 per square mile; this mileage being in addition to stumpage dues.

The stumpage payable on lumber to be cut has been fixed for the present at the following rates:

	per M.	sup. ft.
On Spruce, Pine and Hardwood Saw		
Logs	\$1.00
Cedar Logs80
Hemlocks40

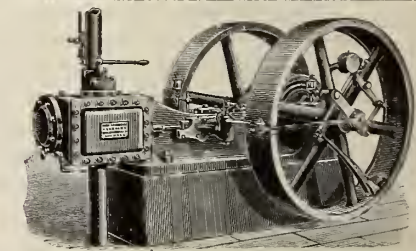
Other lumber as per regulations.

Copies of the regulations to govern this sale, and any further information required, may be had on application to

L. J. TWEEDIE,
Surveyor General,

or
W. P. FLEWELLING,
Lumber Agent.

Crown Land Office,
Fredericton, New Brunswick,
14th July, 1893.



ROBB-ARMSTRONG ENGINES

All parts interchangeable, Governor either Automatic or Throttling.

Monarch Economic Boilers

Economical
Portable
Durable

MILL MACHINERY AND SUPPLIES,
WOODWORKING MACHINERY,
ETC.

ROBB ENGINEERING CO. LTD.

AMHERST - - NOVA SCOTIA

3½ Cents a day—

That isn't much money, is it?

About twenty-five cents a week or so.

And a man must be pretty hard up if he hasn't that much to spend every week.

Times are hard, they say; but if they are hard now to your family and yourself, what will they be to your family without you?

That's worth thinking about.

We think that no man should be without life insurance when it can be had at such a low rate as 3½ cents a day from the Manufacturers' Life, Yonge Street, corner Colborne, Toronto.

Write to us and we will give you all particulars.

DONOGH & OLIVER



WHOLESALE DEALERS IN

LUMBER



OFFICE

Nos. 213, 214 and 215

Board of Trade Building

Toronto, Ont.

Representative Lumber Manufacturers and Dealers

Town	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Circular, 3m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Steam, Circular, 40m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	Steam, Circular, 16m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	
Waubaushene, Ont.	Waubaushene	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Pine only.	Waubaushene mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Steam, Circular, 6m
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Glammis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	Steam, Circular, 25m
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 4m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Water, Band and Circular, 100m
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 40m
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Toronto	Toronto	DeLapante & Bowden	Pine and Hardwood Lumber, Whol. and Retail	
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

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The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

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FOLLOWING LIST OF NEW AND SECOND-HAND BOILERS, ENGINES AND GENERAL MACHINERY FOR SALE BY THE CANADA MACHINERY AND SUPPLY CO., BRANTFORD, ONT., DEALERS IN NEW AND SECOND-HAND MACHINERY AND SUPPLIES:—

- ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.
ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.
THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.
ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.
TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.
ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S MAKE.
TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.
ONE 6 1/2 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.
TWO 5 1/2 x 9 SLIDE-VALVE ENGINES, BECKETT'S MAKE.
ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.
ONE 15 H.P. ENGINE, English make.
ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.
ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:—

- ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.
TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.
ONE GOLDIE & McCULLOCH THREE-SIDE moulder.
ONE ONE-SIDE MOULDER.
TWO 34-INCH WHEELS BAND SAWING machines.
ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.
ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.
ONE GOOD SHAPER.
SIX GOOD SAW TABLES.
ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.
ONE WOOD FRAME TENONER IN GOOD shape.
TWO UPRIGHT SWING SHINGLE OR heading machines, with jointers.
ONE ALMOST NEW GENUINE "BAILEY" gauge or handle lathe, with countershaft.
ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.
FOUR DOWELL MACHINES.
ONE 20-INCH WATEROUS CHOPPER COMPLETE with double elevators, equal to new.
FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

SECOND-HAND MACHINERY FOR SALE

One right hand 12 x 14 straight line engine, our make run a very short time.
One pair of engines, right and left, 16 x 20, can be used separately or together, with two large pulleys and fly wheel and connecting shaft.
Three boilers 48 x 14 with large domes, full fronts all fittings, fixtures and stack.
One 60 x 13 ft. 6 in. steel boiler, with 64 3/4 in. x 13 ft. 6 in. tubes, boiler made of 6 sheets double rivetted on side seams, furnished complete with all fittings, fixtures and stack, boiler and fixtures are in perfect order having been run but three months.
One 56 x 14 boiler, comparatively new, has been in use less than a year.
One right hand iron saw frame, with mandrel, pulley, boxes, three 54 in. saws, 56 to 100 teeth in each, and one 64 in. saw, suitable for steam or independent friction feed.
One 3-block heavy saw carriage, Sewry's make, with boss dogs, V and flat track, frame and carriage are in good order, have averaged 35,000 to 40,000 ft. per day, only discarded to put in a band mill and carriage suitable for same.
One left hand 3-block light medium sized saw carriage with V and flat track.
Several portable engines from 12 to 20 horse power.

WATEROUS, BRANTFORD, CANADA

FOR SALE

A HANDLE LATHE FOR MAKING FORK and rake handles.
Inch squares are cut out of slabs, piled one on top of the other in the machine, and it automatically takes the lowest, runs it between the knives and produces the handle without any more attention. Contracts can be secured for all the handles that can be produced with the machine.

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TWO CAPABLE MEN WANTED AT ONCE for the season. Apply to THE MUSKOKA MILL & LUMBER CO., Muskoka Mills, Ont.

FOR SALE

50,000 Acres well-selected Timber Limits

IN COAST DISTRICT OF BRITISH COLUMBIA, close to tide water, together with a complete Saw Mill Plant. This valuable property can be bought at a bargain and on easy terms.

For information apply to or correspond with H. H. SPICER, Vancouver, B.C.

AN ARTICLE FOR

LUMBERMEN AND LOGGERS

IN THE JUNE NUMBER OF

SCRIBNER'S MAGAZINE

ARTHUR HILL, President of a Saginaw Lumber Company, who began his career as a landlooker, has written the truest and most graphic account ever published of LIFE IN A LOGGING CAMP.

DAN BEARD, the well-known artist, made a special journey to a great lumber camp last winter to sketch the SHANTY BOY at work. Twenty of his realistic pictures appear in this article. Among them:

- THE SWAMPER THE LAND LOOKER
CHOPPER AND SAWYER
SHANTY BOY WITH CANT HOOK
SNAKING A LOG WITH SKIDDINGTONS
DINNER HOUR THE SKIDWAY
A LOG TRAIN A MOSS BACK
COOK'S DEVILS SUNDAY IN CAMP
A BANKING GROUND

This article is in the series on MEN'S OCCUPATIONS, which will run through the year, and includes The Sailor, The Actor, The Printer, The Journalist, and The Machinist. Each article elaborately illustrated.

25 CENTS A NUMBER \$3.00 A YEAR

CHARLES SCRIBNER'S SONS
743 BROADWAY, NEW YORK

THE

NORTH SHORE NAVIGATION CO.

Royal Mail Line of Steamers

CITY OF MIDLAND CITY OF LONDON
... FAVORITE MANITOU ...

Running in connection with the G.T.R. and C.P.R., will sail during the season of 1893 as follows:

THE CITY OF MIDLAND AND THE CITY OF LONDON will leave Collingwood at 1.30 p.m. every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same day at 10.30 p.m., after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and stopping at all intermediate ports to Sault Ste. Marie. Returning leave the Soo at daylight, making railway connections at Wiarton, Owen Sound and Collingwood.

The FAVORITE will leave Collingwood Monday and Thursday, at 1.30 p.m. for Parry Sound, Byng Inlet, French River and Killarney, connecting there with line steamers for Sault Ste. Marie. Returning stop at French River, Byng Inlet and Midland, making connection there with steamer MANITOU for Parry Sound and G.T.R. for south and east, and at Collingwood with G.T.R. for Toronto and Hamilton.

Commencing Thursday, May 4th

The MANITOU will make regular trips from Penetanguishene, connecting with trains from the south only at Midland, every Monday, Wednesday, Thursday and Saturday on arrival of G.T.R. from all points south and east for Parry Sound, making connection there with the steamer FAVORITE for Byng Inlet, French River and Killarney, where the latter connects with the line steamers for the Soo.

For tickets and further information see folders, or apply to all agents of the G.T.R. and C.P.R., or to C. E. STEPHENS, M. BURTON, Sec.-Treas., Collingwood, Mgr. Collingwood.

CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF

THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA:

1893

Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank:

Power, style and capacity of mill:
Class of manufacture:
Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank:

Wholesale or Retail: Class of stock handled:
Post Office: Shipping Point:

Owners of planing mills, sash, door and blind factories, will please fill in following blank:

Power and style:
Class of manufacture:
Post Office: Shipping Point:

(Signed)
P.O.
Province:

Address all communications to

DIRECTORY DEPARTMENT, CANADA LUMBERMAN, TORONTO, ONT.

REGISTERED STAR BRAND PORTLAND CEMENT

Our own manufacture and unexcelled.

Its use is authorized by Province of Ontario and Toronto City Engineers.

Quality GUARANTEED, and always the same.

WORKS AT NAPANEE MILLS The Rathbun Co'y MANUFACTURERS, Deseronto, Ont.

F. REDDAWAY & CO. MANUFACTURERS OF CAMEL BRAND BELTING. BREAKING STRAIN 6 IN. "CAMEL" HAIR BELT 14,181 lbs. ALSO MANUFACTURERS OF LINEN FIRE HOSE. MANCHESTER, ENGLAND. 57 ST FRAS. XAVIER ST, MONTREAL.

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"BUILD TO-DAY THEN, STRONG AND SURE, WITH A FIRM AND AMPLE BASE." Longfellow. DO YOU? WISH THUS TO BUILD an advertisement in the CONTRACT-RECORD, TORONTO will bring you tenders from the best contractors.

WHY BAND SAWS BREAK

SIXTEEN REASONS, AND HOW TO AVOID THEM



Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

A book filled with valuable information on the care of band saws. Giving the reasons for breaking; analyzing each reason; giving instructions to dispense with the causes as laid down in each reason; and full details on filing and brazing.

The book is printed on fine paper, good clear type, and is handsomely and substantially bound in cloth. It will be sent to any address on receipt of the price, ONE DOLLAR.

Address— CANADA LUMBERMAN, Toronto, Ont.

ROBIN & SADLER MANUFACTURERS OF Leather Belting SPECIALTIES DYNAMO BELTS WATERPROOF BELTING MONTREAL TORONTO 2518 & 2520 NOTRE DAME ST 129 BAY ST. Send for sample of our new SAWMILL BELT

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MACHINE KNIVES
OF EVERY DESCRIPTION FOR
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All kinds of Building Material kept in stock

WE MAKE A ... SPECIALTY OF LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK

Quotations furnished on application

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MANUFACTURERS OF

Doors, Sash, Blinds, Stairs

And all kinds of House-Finishing Materials

VENEERED DOORS a specialty

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Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.

Every description of Lumbermen's Supplies and Waterproof Clothing.

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Lumbermen

YOUR BUSINESS IS HELPED BY ...

ADVERTISING

... IN ...

CANADA LUMBERMAN

WRITE FOR PARTICULARS

Dauntless Shingle and Heading Machine

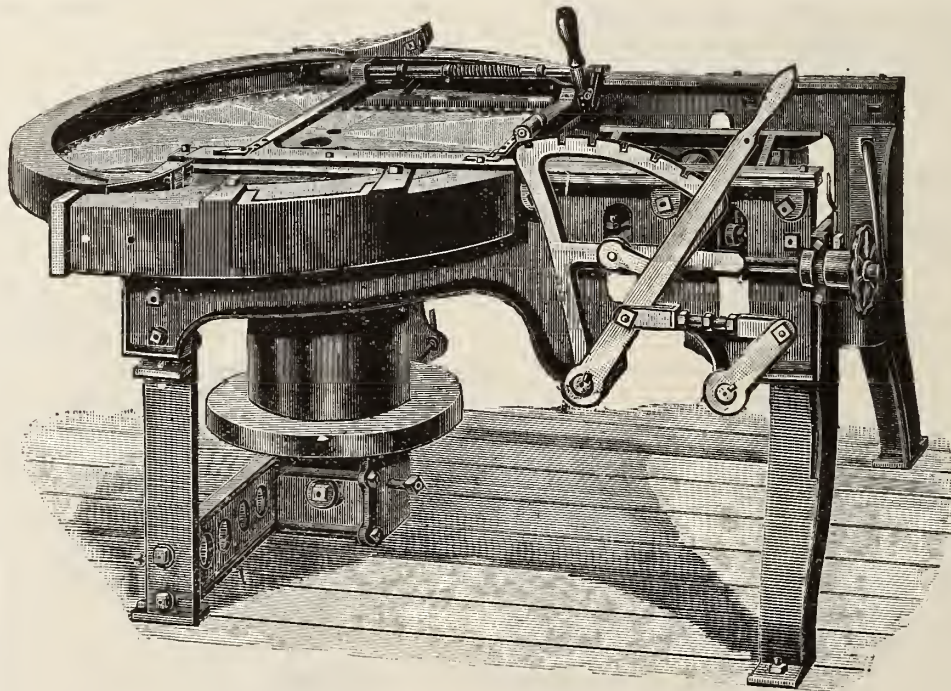
Will make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

... Is of Iron throughout, very heavy and rigid, strongly bolted and braced.

THE CARRIAGE

... Is very light and strong, made of forged Cast Steel Plate, running on steel ways or tracks. Will take in a block 18 inches wide and 19 inches long, adjustable for 16-inch or 18-inch shingles.



CAPACITY FROM 25,000 TO 50,000 PER DAY

[COPY.]

LINDSAY, May 18th, 1893.

MR. F. J. DRAKE, Belleville.

Dear Sir,—The shingle machine we bought of you over a year ago is doing well. Last year we averaged over 32,000 shingles per day all through the season. We did not lose 15 minutes' time from all stoppages, and all repairs so far have not cost 50c. We expect to make a still higher average cut this year.

All our other machinery purchased from you is as good as the shingle machine. Your drag saw, with friction drive, cannot be beaten. We run ours 180 strokes per minute; with 6½ ft. saw it would easily make blocks for two shingle machines. The splitter, with balance wheel 4 feet diameter, weighing 1,000 lbs., is perfect and runs without the least jar. The iron frame shingle jointer with 40-inch saw is the only good jointer we ever saw. In fact, all your machinery, line shaft, pulleys, etc., give us the best satisfaction.

We expect to require another mill in a few days, and, if we do, will send you the order for complete outfit.

Truly yours,
M. DOVEY.

P.S.—If any one wants to see a good working shingle mill send them to me.—M. D.

(F. J. DRAKE)

PATENTEE AND ... MANUFACTURER OF SAW, SHINGLE AND LATH MACHINERY
BELLEVILLE, ONT.

Do You Lack Steam? We Can Help You THE CANADIAN HOLLOW BLAST GRATE

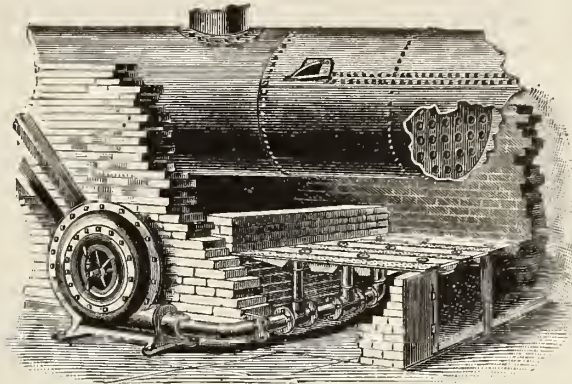
The Hollow Blast Grate supplies the furnace fire with a blast of hot air sufficient at all times to insure the rapid and perfect combustion of fuel of every sort.

It is the only appliance that steams successfully with green or wet sawdust, tanbark or other refuse and waste.

It alone has solved the problem of steaming with the fine, compact dust of the band mill.

THEY WILL NOT BURN OUT LIKE OTHER GRATES. NO SAW MILL CAN AFFORD TO BE WITHOUT. THEY WILL SAVE THEIR PRICE IN THREE MONTHS.

REGARDLESS OF THE CHARACTER OF YOUR FUEL, WE CAN GREATLY INCREASE THE VOLUME OF STEAM GENERATED IN YOUR BOILERS.



Furnace Fitted with Hollow Blast Grates and Apparatus.

HUNDREDS OF TESTIMONIALS LIKE THE FOLLOWING:

"After having used your blast grates for one year we have much pleasure in saying that in our opinion they are THE INVENTION OF THE AGE. We would not be without them under any consideration."—STEINHOFF & GORDON, WALLACEBURG, ONT.

"They are a complete success, doing more than you claimed for them. We now keep a full supply of steam using nothing but green elm sawdust, doing better than we could with dry wood using the ordinary grate bars."—C. W. THOMAS, GORDON, ONT.

"They give us full satisfaction in every respect. We now turn out one third more stuff per day than formerly. They exceeded our expectations."—MCMACKON & COATES, TILBURY CENTRE, ONT.

"The blast grates started all right and give good satisfaction. We can burn most of the saw-dust and keep up steam now. I would not be without them for double the price."—JOHN G. ROCK, BRODHAGEN, ONT.

"I do not consider a saw mill complete without Blast Grates."—AARON GORDON, DRESDEN, ONT.

"I put in a set of your Grates a year ago, and they pleased me beyond expectation. I spent hundreds of dollars in various contrivances to burn elm sawdust, but without success. I now burn all my dust. I can keep up better steam pressure than I could before with dry wood."—C. E. NAYLOR, ESSEX, ONT.

FOR INFORMATION, PRICES OR ESTIMATES, ADDRESS

THE CANADIAN HOLLOW BLAST GRATE CO., ESSEX, ONT.

IT COSTS YOU NOTHING TO TRY THEM

WE GUARANTEE SATISFACTION OR NO SALE

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J. O. GRAVEL, Secretary-Treasurer

J. J. MCGILL, Manager

F. SCHOLDS, Managing Director



Canadian Rubber Company

Capital, \$2,000,000.00

of MONTREAL, TORONTO and WINNIPEG

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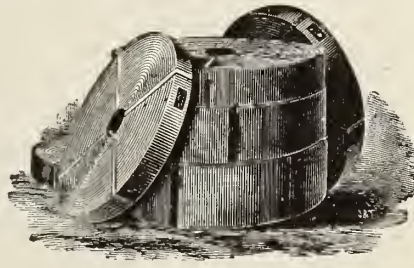


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FLINT & PERE MARQUETTE
RAILROAD

FROM
Port Huron and Detroit

Is the Short Line to
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(Centres of the vast lumber interests of Michigan)
MT. PLEASANT, CLARE, REED CITY
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The line thus formed is a short and direct route from
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Write either of the undersigned for Folders, which
contain Maps, Train Schedules and much information
of value to those contemplating a trip to any of the
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General Manager. Gen'l. Sup't.

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ONTARIO MUTUAL LIFE

on an ordinary Life Policy of \$1,000,
No. 1230 during its first 20 years,
issued for age 37:

In 1872....	Paid \$26.57	In 1882....	Paid \$13.29
1873....	" 26.57	1883....	" 12.33
1874....	" 26.57	1884....	" 11.69
1875....	" 24.71	1885....	" 11.35
1876....	" 20.65	1886....	" 11.35
1877....	" 19.16	1887....	" 12.19
1878....	" 17.32	1888....	" 12.88
1879....	" 13.02	1889....	" 12.41
1880....	" 12.65	1890....	" 11.91
1881....	" 13.29	1891....	" 11.38

Total Paid in 20 years...\$321.29

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& 2ND
MACHINERY
ILLUSTRATED CATALOGUE FREE
H.W. PETRIE
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SPOONERS'
HONOR BRIGHT
GOPPERINE
BEST MACHINERY BOX-METAL EXTANT.
CANADIAN MADE & STUMPS THE WORLD.
QUALITIES TO DO ALL YOUR WORK.
HARDWARES ALL SELL IT
COOL BEARINGS, NO HOT BOXES
EASY AS AN OLD SHOE
GENUINE SAFEGUARD
FOR ENGINEERS
HIGH CLASS
METAL

Rochester Bros.
: : COMMISSION AGENTS

Limits bought and sold on commission. Limits travelled
and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake
Huron and on the Upper Ottawa now in our hands
for sale.

Communications confidential. References given.

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LUMBER AND LOG
BOOK
OVER ONE MILLION SOLD
Most complete Book
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Gives measurement of a kinds of Lumber, Logs,
Planks, Scantling; cubical contents of square and round
timber; hints to lumber dealers; wood measure; speed
of circular saws; care of saws; cordwood tables; felling
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A FEW SUGGESTIONS

..... REGARDING THE SUCCESSFUL

Drying of Lumber, Shingles, Heading, etc.

It is a difficult matter to set forth in a brief communication the reasons why some kilns are faultless and others worthless. Arguments may be convincing to those who have had experience, and yet bear no weight with those who have not. It is a fact accepted by all, however, that lumber can be dried without injury if the passage of the interior moisture to the surface precedes or keeps pace with surface evaporation. If the operation is uniform and extends to all parts of the material, uniform results will be obtained without warping, twisting or injury. Restrict the application of heat to one side or one edge of a board, for instance, and it will be unevenly dried and left in a warped, crooked and strained condition. Hasten the surface evaporation without expediting the escape of interior moisture proportionately, and the exterior will contract more rapidly than the interior, and checking and injury will result. Heat will drive the interior moisture to the surface, but too much heat or too little or an uneven application of it, is disastrous. If evaporation is properly controlled, most lumber one inch or less in thickness will stand a temperature of 100 deg. at the start and an increase of 1 deg. per hour until evaporation is completed. Time is saved by applying as much heat as lumber will stand. We pipe our kilns the entire length, graduating the heating surface so as to increase the temperature 1 deg. to the foot, measuring from cold end. In a kiln 100 feet long with a temperature of 100 degrees at the receiving end, this gives 200 deg. at the unloading end. Whether temperature be higher or lower, and kiln loaded or empty, the graduation of heat remains uniform. Pipes are so placed that the lumber feels the direct radiation of heat. The circulation is upward through the lumber, and downward at sides between brass condensing plates and inner partitions. Thus an absolutely even and progressive heating is secured. A circulation lengthwise of kiln is wholly avoided, a humid or saturated atmosphere can be maintained about lumber while heating up, and during the entire process heating precedes evaporation. As might be expected, the highest results are obtained, and never anything else. We avoid engines, fans, chimneys and additional heating rooms, having a natural and perfect circulation in a vertical direction, the only one that will secure even heating. The kiln is fire proof and more durable and slightly than any other. The last degree of economy is reached as we supply only the heat absorbed by the lumber, and that lost on the condensing plates. Among those who have bought and used all the kilns that have come upon the market, certain facts are accepted as satisfactorily proven.

1st.—That condensing kilns have a clear advantage over all ventilating systems of 30% to 50% in running expenses—fuel and attendance.

2nd.—That lengthwise or horizontal currents of hot air in a long kiln cannot possibly be made to heat or dry lumber evenly. If entrance and departure is at top of kiln, the body of heat will be at top, and bottom lumber will mildew. If entrance and departure be at bottom under the two end cars, the heated current will rise in centre taking a rainbow shape. An augur would be better adapted to rounding and truing billiard balls than such a current to even heating and drying of lumber.

3rd.—That all fans, blowers and power methods of creating circulation are worse than useless, because expensive, dangerous and destructive to even circulation.

4th.—That properly graduated heating appliances placed the entire length of kiln so that lumber will feel direct radiation of heat, is the only stable or unvarying or satisfactory means of securing or maintaining a progressive system of heating in a lumber dryer.

In conclusion, we can say this, we are prepared to give a valid guarantee to each purchaser, that our kiln will do more work in less time, at less expense, and in better condition than any other. When any other kiln will fill this guarantee, we will refund the cost of ours. We shall be pleased to furnish plans and estimates. Believing that purchasers need no other inducements than our guarantee, our references and our prices, we leave them to call on us, if they desire an interview instead of sending an agent to them, unless in exceptional cases. We shall be glad to have you call on us, and if you will to have you make our offices headquarters while in the city.

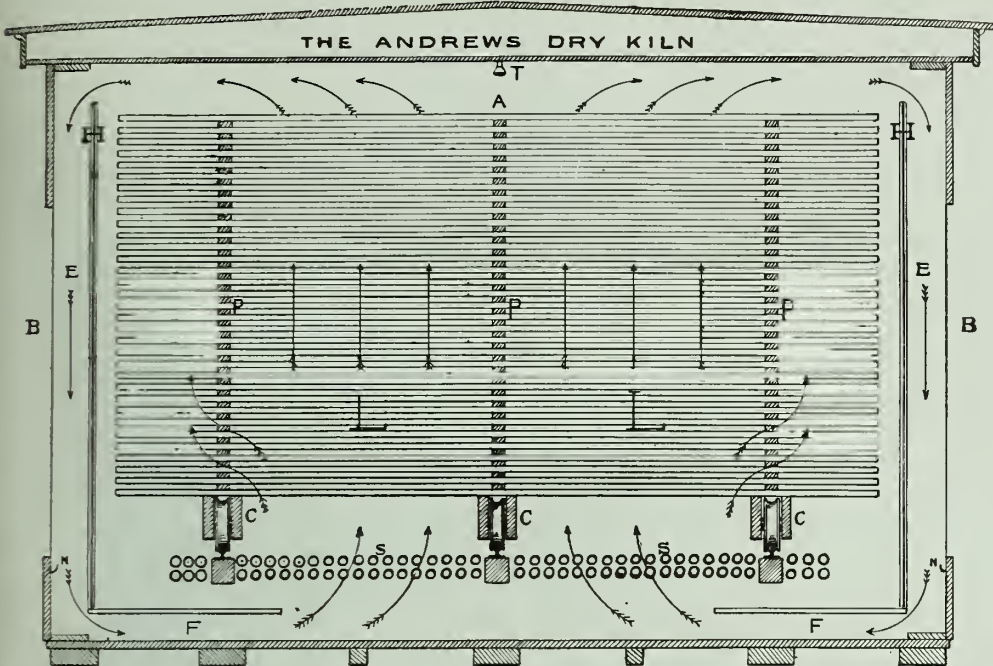
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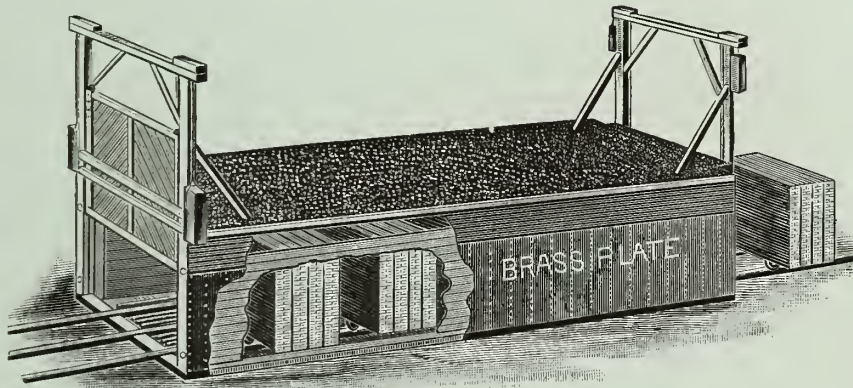
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- ... NO EQUAL ...



Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

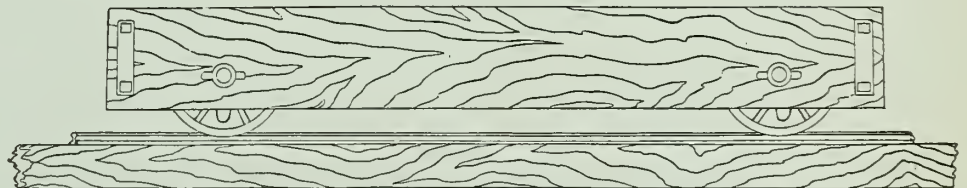
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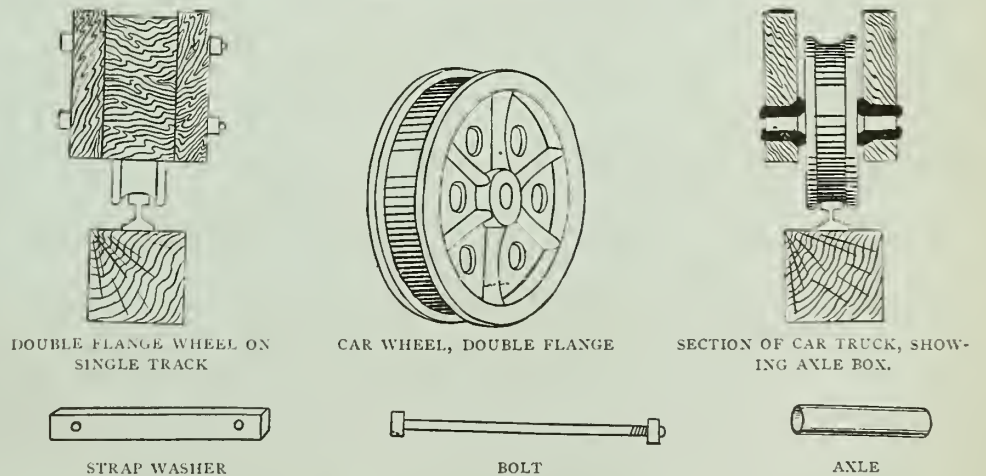
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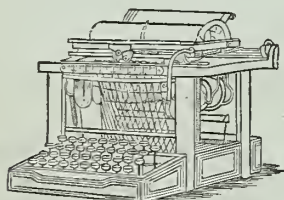
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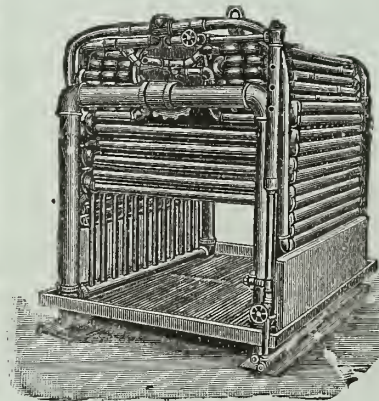
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WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIV. }
NUMBER 8.

TORONTO, ONT., AUGUST, 1893

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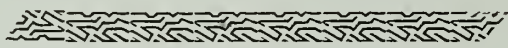
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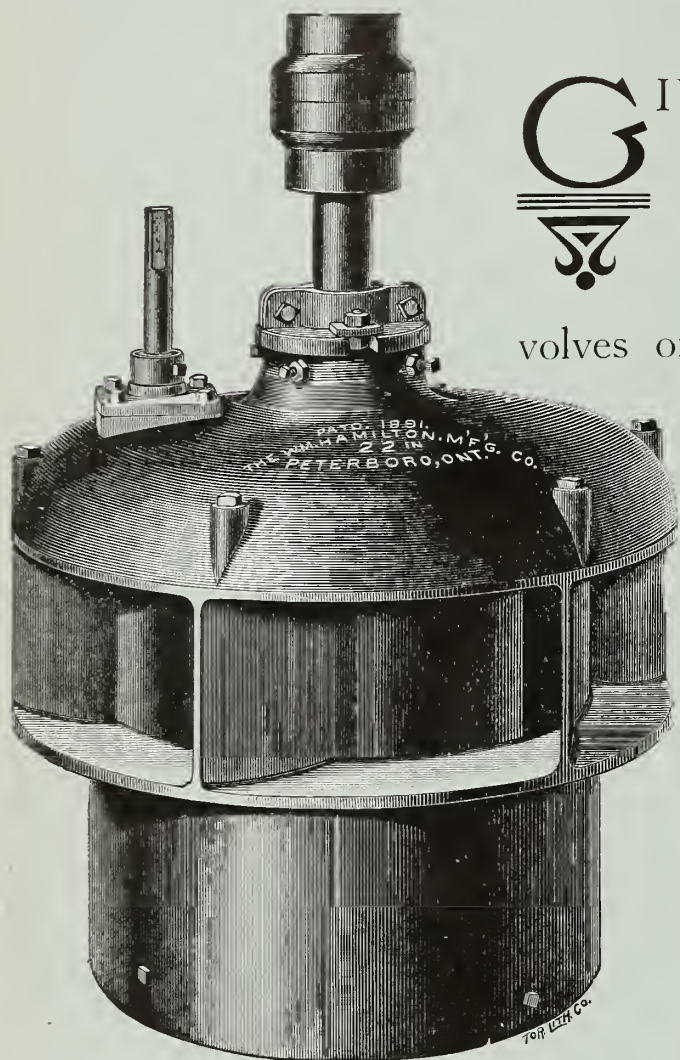
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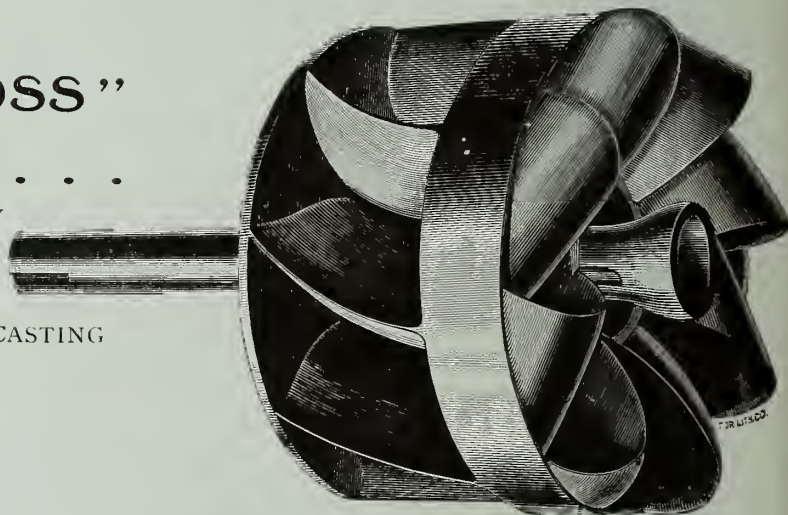
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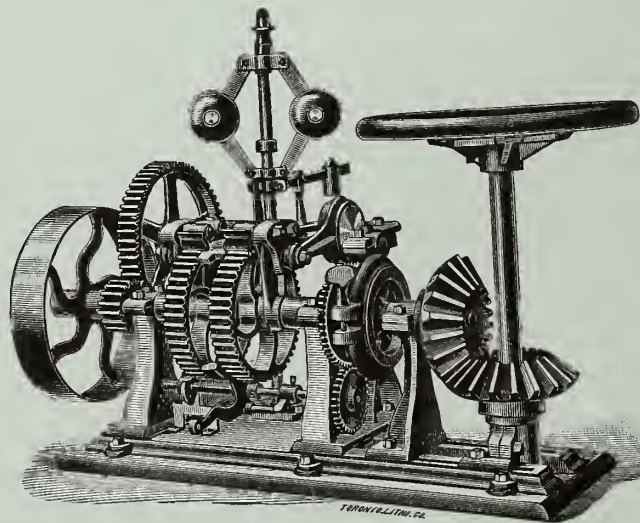
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SHARP SAWS.

THE saw is of very early origin in the history of man, as many of the ancient structures could not have been built without it. The British Museum contains saws known by their stamp to have been made two thousand years before the Christian era. They have frequent mention in Scripture, noticeably in Samuel, 1083 B. C., and in Isaiah, 742 B. C. In the Stone Age saws were made by securing pieces of flint for teeth in wooden handles, with bitumen, and similar articles have been used by other people. The Japanese make their saws like cleavers, with their teeth pointing toward the handle. The circular saw and other improvements probably came in late in the eighteenth century.

All work in wood is done either by sawing or cutting, and sawing is only a different way of cutting. The teeth of a saw work like a series of chisels, and a chisel-shaped tooth is the best for a rip saw in theory. In practice, however, the slender point of such a tooth will break away before knots of hard wood. A very different tooth is needed for cutting across the grain, as the work here is more difficult, requiring the teeth to be filed well back for cutting from the sides of the point, in order to sever across the grain of the wood. The length and size of saw teeth must vary for the various kinds of wood, requiring to be shorter and smaller in harder wood. Seven to ten teeth to the inch is about the right size for general purposes in hand saws.

The same rule applies to the angles of the teeth, the angle being less thrown forward for harder woods, either in crosscut or rip saws. The set of the teeth should be no wider than is required to make the saw run smoothly, as more than this makes needless work. The set must be wider in green or sappy or soft and springy woods than in the opposite. Rubbing the saw with an oily rag helps by lessening the friction, also by preventing rust, and further, a saw should be chosen which tapers thinner to the back. In buying a saw get from the make of some reputable firm, one with a thin blade, dark color, hung right and tight in handle, one that rings clearly when tapped, and bends evenly when sprung to either side, and with handle thoroughly dry and unsprung, as that springs the blade out of true.

Get all your set from the tooth and none from the blade, as this strains and distorts the blade. A good saw set is better than hammer and punch in the hands of a beginner. Set the saw before filing, and in cold weather warm the saw to prevent the teeth breaking when set. The back saws have very small teeth and generally need no setting, as the filing gives sufficient. Backed saws frequently become warped and buckled if used roughly. This is caused by a blow on the centre of the back, causing the blade to slip into the back at that point. Remedy by tapping lightly on the ends of the back until the ends are drawn in even with the centre.

Lay the stuff on benches; if thick rule on both sides and turn frequently to prevent the saw wandering. Keep your eye above your hand, or you may be misled. Keeping open the crack with a wedge assists both in the cutting and steering process. The teeth should have been filed evenly, as if longer on one side they mislead the saw in that direction.

The rip saw is easiest to file, as being level on the points of the teeth it is simply filed straight across the blade, with the file held level from point to heel, and at the proper sidewise tip to give the upper angle or pitch to the teeth. Take hold of the tip of the file with the left hand so as to secure steady work, and file only on the push stroke, as this will give you better work and greatly save the file. The crosscut saw is harder to file than the rip, owing to the teeth requiring a point. With file in hand, as above, and saw in trim, proceed as

above, only with the file at the proper sidewise angle to the blade to give the point required by the tooth. File one side first, then reverse the saw in the clamp and proceed as before, giving the same pitch to the teeth, and the work is done. The great requisite of a filer of saws is carefulness in all the particulars.

As soon as the tooth is brought to its proper level stop at once, or you will do much harm to your work. No definite rule can be given for size of teeth, as wood that is either soft, green, or in a large stick or log, requires a larger tooth for clearance than is needed in the reverse conditions. In hand saws the farmer will get the best use from the smaller teeth, as they will saw in both soft and hard woods. Compass saws and all of that class do better work filed square on back of teeth as in the rip, and a slant in front as in the crosscut saws, as they are required to part wood in all directions. The V tooth in large crosscut saws should be slightly longer than wide. The M tooth of itself cuts powerfully into the wood, but is regulated in its depth by the alternate cleaner, which is filed enough shorter to give the tooth a proper hold and no more.

In selecting a file, choose one with an even, whitish color, as this denotes evenness of temper. Also choose one with the name of the maker upon it if you want the best, as the makers only put their names upon their first-class files. If there is a difference in weight between those of the same size, select the heavier, as they are generally better. The boards for filing should be about four inches wide, hollowed out to fit over the handle, top edge rounded to give room for filing, and long enough to permit screwing them together just beyond the point of the saw. Saw sets for general use are best provided with a set screw to regulate width of set. The cheapest form, next to the hammer and punch, which are entirely to be recommended, is simply a little square of steel with handle of the same, and with different sizes of notches along the sides. Where care is taken to use this on each tooth alike, no better set is required.

LINING UP AN ENGINE.

BY ROBERT GRIMSHAW IN MILLING.

THERE are few things which show the care and ability of an engineer or of a machinist more than this matter of lining up. Some call to mind the old proverb that every hair of a carpenter's head is an eighth of an inch in diameter, owing to the fact that the average carpenter will work to an eighth of an inch where almost every other mechanic would work to a hair's breadth. Others seem to appreciate the fact that a very slight variation at the cylinder end of the engine may amount to a great deal at the crank pin.

The first thing to do is to see that the foundation is level and firm; second that the engine bed is as nearly level as is practical to get at with the aid of levels and sighting strips. The bed must be leveled, both lengthwise and crosswise. If it is so in these two directions it will be in every diagonal direction also. The longer the level used, the more accurate the result that can be got. For cross-leveling, where there is not a chance to use a long level, the sighting strips will often come in very handy. They are simply long and absolutely straight and parallel strips of wood (preferably cherry) of equal width and used in pairs. Being laid crosswise on the engine on the guides, at opposite ends, as far apart as possible, and one of them being shown to be perfectly horizontal by the application of the level, the other should sight fair with it at both ends. A very slight twist will bring one end or the other, or both, of one of the strips, out of line with the other.

The circularity and parallelism of the cylinder bore having been proved by a piece of stout wire, pointed at both ends, and just as long as the diameter of the bore,

the cylinder must be shown to be level, if it is a horizontal engine (and we are talking now only of horizontal engines), by the application of the level. The truth of the flanges may be tested by a steel square and the level; this is desirable in those cases where the guides are on a distance-piece bolted to the cylinder. The flange faces may be plumb, yet skew horizontally with the cylinder-bore; this cannot be shown by the plumb, square or level; and either of these faults is a most serious one, which does not happen once in a hundred times, but which, when it is found to be the case, gives so much trouble at first and afterwards as to call for being remedied by the builders—that is, in those cases where the guides are bolted to the flanges, or the cylinder bolted as in the Porter (so-called tangye) pattern. The guides may be tested for level by the level. If they are level and the cylinder-bore is circular, parallel and level, the guides, if level lengthwise and crosswise, will be parallel with the cylinder axis and at right angles with the cylinder-flanges. If the guides are higher at one end than at the other, it will be shown by the level. If they are askew, that may be shown by the sighting strips.

To be sure that the guides are in line with the cylinder-bore there are two ways, one to be sure that they are square with the face of the flange which bolts to the cylinder and which constitutes one cylinder head. If the cylinder flanges are square with the bore and the guides are square with the face of the head, then the guides will be parallel with the cylinder bore.

Where this distance-piece construction is not followed, the guides will have to be lined with the cylinder-bore by a cord passing through the centre of the bore, being there held at the rear or "out" end by a strip wedged into the bore, and passing at the other end of the bore through a spider made of metal for the purpose, or of wood for the special occasion, this line being prolonged as far as possible beyond the crank.

If the shaft when laid in its bearings is higher at one end than at the other, that may usually be shown by the level, or by a plumb held against the crank web or disk—this last, however, assuming that the crank is truly at right angles with the shaft centre. If the shaft is no higher at one end than at the other, but is out of square with the cylinder-bore in a horizontal plane, that may be shown (assuming that the crank is at right angles with the shaft) by applying a sighting-strip horizontally to the face of the crank web or disk and sighting a point at a known distance from the cylinder-bore; this being determined by T-squares from the centre-cord. The crank-pin will show, by being further from the centre line when on one of the dead centres than on the other, whether or not the crank is at right angles crosswise to the cylinder-bore in the horizontal plane. The shaft-bearings can be tested independently of the shaft, with the latter removed, by drawing a cord through the centres. The piston-head must be made exactly central with the cylinder-bore, and the cross-head made at the proper height with the latter, and also square with it and with the guides.

To recapitulate: The following are the points to which suspicion must be directed and where correction must be removed for them if they are not found correct:

Cylinder-bore—Level.

Front Cylinder Flanges—Plumb and at right angles with the cylinder-bore.

Guides—Level lengthwise and crosswise; parallel with the cylinder-bore; at right angles to the cylinder-bore; at right angles to the cylinder flange.

Crank—Level; at right angles with the cylinder-bore; at the same height with the cylinder-bore.

Piston—Central with the cylinder-bore.

Crosshead—Central with the cylinder-bore, at right angles throughout, and at the proper height.

WOODS OF THE WORLD.

THE papers read at the Forestry Congress of the World's Fair have been the means of imparting a large amount of information concerning various woods from many divergent parts of the world.

British Guiana.

British Guiana, according to Hon. J. J. Quelch, has 9,000 square miles of forests, and some of the trees grow 300 feet high. Among the specimens shown were 150 different kinds of woods, but only four of these are known commercially in America. One admits of a very bright polish closely resembling gilt. Greenheart is valuable for ship wood, as is also mora, the latter growing 300 feet tall, and almost universally hollow. Watalia is used for shingles and cooperage, the natural oil in the wood protecting it from the water. Hitherto British Guiana has imported considerable white pine from America, but native woods are now taking its place.

Mexico.

The paper on Mexico was written by Lauro Viadas and Romulo Escobar, and says that walnut, cedar, ebony, oak and mahogany are found in abundance in that country. A very common tree is the soap tree, the fruit of which is used for soap. Colonel Ameer, who read the paper on Mexico, showed the photograph of a big tree, and told the story that an Indian once climbed 50 feet up the tree and was drowned in the water that had collected between the branches.

Australia.

The total forest area of New South Wales, said Hon. J. P. Hudson, superintendent of the exhibit from that country, is estimated at about 21,000,000 acres, and we have 1,013 forest reserves proclaimed covering a total of over 5,600,000 acres, sub-divided in 25 districts each having resident foresters and travelling inspectors whose duty it is to safe-guard these forest reserves. In 1891 the forest department expended \$119,375 upon the northern reserves for the conservation of red cedar and for other purposes. As in the United States, so also in New South Wales, Arbor Day has been appointed on which the children of all the public schools plant trees. We have also a state nursery consisting of over 1,200,000 trees, representing over 250 kinds of timber.

We have practically three classes of timber country, divided into open forest, scrub and brush, these forests producing no less than 630 different kinds of timber of economic value. The finest description of hardwood timbers grow on the ridges and hill sides.

Iron bark has a tensile strain about twice that of English oak and is extensively used for girders, bridges, wharves and whenever great weights are to be carried, and for railroad ties it has no equal.

Spotted gum thrives the best on poor soil. It is a handsome wood, capable of high polish, bends readily and is used for joists, etc., and in ship building. The heart wood is also very valuable for paving purposes.

Blue gum and blooded gum are especially prized for wheelwrights' works. It is also good for paving blocks, wharf decking, etc.

Stringy bark, so called from the fibrous nature of its bark, is a good building timber and is used extensively for paving blocks and is expected to some day play a part in paper making.

Tallow wood is a grand tree, growing to a great height and size and makes excellent framing. It is a favorite timber for making floors, shipdecks, wharves, etc.

Mountain ash is especially adapted to coopers' work, being free from taste or stain, white and easily worked.

Turpentine timber is unequalled for wharf-piles, being proof against marine worms and not affected by salt water.

These are but samples of our many valuable timbers which grow in what I call open forests.

The red cedar is our royal wood and is beautiful enough to adorn any building erected in these days of great architectural triumphs, and will hold its own with any wood of the world. It is extremely durable, as shown in the Forestry Building by a section of a large cedar log which had been felled and exposed to floods and the elements for more than twenty years without

appreciable decay. The cedar flitches shown in the Forestry Building are merely of the ordinary quality and not selected for any other purpose than to show it in its ordinary commercial aspect.

Rosewood is most beautiful for furniture and interior finish and is destined to become extremely valuable.

Black and red bean are fancy timbers, especially desirable for fine joiners' work, which are exemplified in the door and architraves in the Forestry Building which have withstood changes of climate and been transferred for thousands of miles without affecting the joints. There are suites of furniture in the Manufacturers' Building made of these woods.

The beech is a tree of noble proportions and is in great demand for house building and the fitting up of railway carriages, etc.

Our brush forests cover a considerable area of the country along the coast and contain tall and graceful ferns reaching a height of 60 feet. They also contain cabbage palms, fig trees and some of the most useful as well as ornamental hardwood trees, such as silky oak, tulip wood and ash. One of the principal trees is colonial pine, which grows to a height of 200 feet and is used for building purposes.

Grey Iron Bark has a resistance to breaking strain 50 per cent. higher than English oak. Full grown trees usually average 100 feet clear of limbs. Although our timber resources are so great, we import considerable quantities chiefly from New Zealand, South Australia, the United States, Canada and the United Kingdom.

West Africa.

In the opinion of Alfred B. King, commissioner from Liberia, some time will go by before much will be known of West African forests. The coast territory had been completely devastated and was now covered with a new growth of timber. The palm, which is said to be the "shittim" wood of Holy Writ is very abundant. For commercial uses this wood is of little account, the fibre being used for certain purposes. Thirty-seven different kinds of hardwood grow in the forests of West Africa. Mahogany, black gum and rubber hold a foremost place.

Canada.

The forest interests of the Dominion were presented in an address by Prof. Wm. Saunders, of Ottawa.

"In order to gain an intelligent insight into the subject of tree growth and forest distribution in Canada with its enormous area and great diversity of climate," said Mr. Saunders, "a brief description of the present conditions of the several provinces and territories must be given."

"Beginning at the eastern extremity, we have the province of Prince Edward Island. It is about 150 miles long, deeply indented by bays. A large proportion of the land is under cultivation. In the wooded parts, the principal trees are white and black spruce, and American larch, with some elm and oak. The uncleared land is found chiefly at the northern end of the island where some lumbering is carried on. No tree planting has been undertaken here beyond that of tests of a few varieties of western trees, most of which appear to do well.

"In Nova Scotia, with 20,600 square miles of land and New Brunswick with 28,200 square miles, there are large quantities of spruce, hemlock, larch, pine, oak, elm, maple, beech and birch. With so much wooded land, it is not to be expected that any very general feeling in favor of tree planting should exist. Lumber makes up about two-thirds of the total exports.

"Continuing westward, we have the province of Quebec, covering 228,900 square miles. This has vast tracts of forest lands and a large proportion of the trees which form the staple of the woods in the eastern and central states flourish in Quebec. Laws have been enacted to regulate the cutting of timber, which prevent the felling of small trees. Stringent regulations are also enforced for the prevention of forest fires. Inspectors appointed by the provincial government visit the lumbering camps from time to time and see that the forest laws are enforced. No very general sentiment in favor of tree planting exists.

"The province of Ontario has an area of 228,000 square miles and contains large forests which are a source of much revenue to the provincial government,

and timber forms one of the most important articles of export. The trees are cut under regulation and supervision of forest inspectors. In many of the older settled districts sentiment in favor of tree planting exists. Many years ago a law was passed in Ontario which provided for the payment of a bounty for all trees planted on the highways. Arbor Day is also observed.

"Manitoba is situated in the centre of the continent and covers an area of about 74,000 square miles. The principal timber is poplar, with some white elm, green ash, box elder, mossy cup oak, the latter forming a scrubby growth in most parts of the province. White spruce is also found over a limited area. The northern part of Manitoba is covered with trees large enough to be used.

"The northwest territories, which adjoin Manitoba and in many respects resemble that province, consist of four provincial districts: Assiniboia with an area of 90,000 square miles; Saskatchewan, with 107,000 square miles; Athabasca, with 105,000 square miles, and Alberta, 106,000 square miles. The greater part of the southern portion, from the United States boundary north for about 200 miles, is flat or rolling prairie, a large proportion of it being treeless. Wherever the settlers have located in this great stretch of about 1,000 square miles there is an eager desire to obtain and plant trees and tree seeds, and it is within this area that the chief efforts of the government have been exerted to encourage tree planting.

"The Province of British Columbia contains some 380,000 square miles, a large proportion of which is heavily timbered. Within the part west of the coast range 100 to 150 miles wide and 700 miles long, with its mild and moist climate, the annual growth is much greater than it is in most parts of the world; hence there is no likelihood of any scarcity of timber for generations to come and there is not much sentiment among the people in favor of tree planting except in certain lines. There is a little hardwood of any sort, and with a view to supplying this want, experiments are being carried on in growing hardwoods of the east, especially hickory, ash, elm, cherry, black walnut, butternut and white and red oak.

"Reference will now be made to the methods which have been adopted to stimulate tree planting on the western plains through the Agency of the Dominion Experimental Farms. Seven years ago parliament passed an act which gave the government power to establish free experimental farms in different parts of the Dominion. The chief of these was to be near Ottawa and the other four were to be branches, or subsidiary farms; to be located, one in the maritime provinces, one in Manitoba, one in the northwest territories and one in British Columbia. The areas of these farms range from 310 acres to 1,100 acres.

"While experiments are being carried on in every department of agriculture and horticulture, tree planting has claimed a large share of attention. Extensive shelter belts and clumps of trees have been planted on the experimental farm at Ottawa to ascertain the rate of growth of the different varieties in that part of Canada and the conditions under which they thrive best. The site selected for the location of an experimental farm in Manitoba is near the town of Brandon in the Assiniboine Valley.

"The site of the experimental farm of the northwest territories is at Indian Head in the district of Assiniboia, 183 miles west of Brandon. The land was flat, bare prairie, on which no trees grew whatever. On both of these farms shelter belts 100 feet wide have been planted along the western and parts of the northern boundaries. Large clumps have also been put out at other parts of these farms. The trees have been planted five feet apart each way.

"To demonstrate the advantage of shelter for the growing of small fruits and tender crops, hedges and wind breaks are formed of from two to three rows of hardy trees. These are of box elder, elm, ash and several varieties of Russian poplar and willow. Nearly all of these are attaining good growth and under their influence a much larger quantity of snow is collected each winter on the land adjacent which protects tender plants from the winter cold and supplies to the soil in

the spring considerable quantities of needed moisture. The box elder is perhaps the best tree for this purpose. Seed planted early in the spring will germinate the same season, and after the second year the growth is very rapid and they soon make a close shelter belt.

"To enlist the co-operation of the farmers settled on the north-west plains it was decided to distribute through the mails to all who would apply for them packages containing 100 assorted seedling trees for tests. The distribution of packages of trees and bundles of cuttings of Russian poplar has been continued each year, and as a result 8,000 to 10,000 settlers have received packages.

"Tests of a large number of European and eastern trees on the western farms result in a very few of them succeeding, as they succumb to draught or cold and their places have been filled by the hardier native woods. After much experience the following trees and shrubs are among those recommended for planting on the plains. Box elder, white spruce, Russian poplar, European elder, white and yellow birch, willows, poplar, American elm and mountain ash.

American Hardwoods.

A valuable and most comprehensive paper on American hardwoods was read by Mr. O. S. Whitmore, editor of *Hardwood*. He found an excuse for the relentless war waged upon the hardwood forests of the country when the country was first being peopled, but he deprecated in vigorous terms the shameless waste and destruction that has gone on of late years in many leading states. There is less danger of an early extinction of the pines and other conifers than of the hardwoods, for the real destruction of the former only began with the advent of the circular saw, 50 years ago, while that of the hardwoods began two centuries and a quarter earlier and has been continued ever since with ceaseless energy of a great and growing nation. The vast forests of native hardwoods are being depleted at an alarming rate. The New England and the four old middle states have practically been stripped of the original forest. Ohio and Indiana have been practically cut over in 50 years. Southern Michigan and southern Wisconsin have shared the same fate. But these four states, being mainly agricultural, lack the recuperative power of the eastern manufacturing ones. While the hardwood area of New England is at present apparently on the increase, through the decline of agriculture, the remaining hardwood forest of the four last mentioned states are rapidly disappearing, with little or no sapling growth taking their place. The land once cleared remains so. A quarter of a century ago those four states, with Illinois added for some species, supplied the entire markets of the country, save the meager quality of sapling stuff cut in the east, and sent no inconsiderable amount to Europe. To-day they are importing from the south more than they export to other states.

Plant trees, Mr. Whitmore said, should be the national injunction; plant them upon the millions of acres, of unclothed or denuded lands unfit for any other purpose, and plant even the less valuable kinds—the basswood and the cottonwood. All lovers of our beautiful hardwood forests must acknowledge it is none too soon to begin this work if we would save the land from the unlovely aspect of a treeless waste.

Other Papers.

A paper on the woods of the Northwestern United States was read by Prof. L. F. Henderson, of Washington; on the Argentine woods by the commissioner of the Argentine Republic, and cultivation of the cocoa by Hon. Harry Vincent, commissioner for Trinidad. The subject of Forestry from various standpoints was discussed in several different papers presented to the congress. Of these we shall have something to say elsewhere in the *LUMBERMAN*.

TELEPHONING OVER TELEGRAPH WIRES.

AN apparatus has been constructed for telephoning simultaneously over telegraph wires. The system has been in operation for some time on the telephone line from Budapest to Szegedin, a distance of 121 miles. The results were satisfactory. The apparatus can easily be inserted in a telegraph circuit and used at once. It is said that simultaneous telegraphy along the wire does not in the least interfere with telephoning, and that the effects of induction and all disturbing noises are completely removed,

VIEWS AND INTERVIEWS.

Big Schemes.

This is an age when the enterprising citizen sees—or believes he sees—"millions in it." At any rate he is ready to take his chances on some scheme with the hope of extracting the millions. It is an age of gigantic schemes, and, as the American Artizan remarks, the advancing years seem to produce an increase rather than a diminution in the number of such schemes. "We have all heard," this journal says, "of the scheme for expending \$40,000,000 in the construction of a monster dam in the vicinity of Newfoundland that would turn the gulf stream back on itself and give New England a tropical climate so that the Granite State boys could climb palm trees to shake off the succulent cocoonut on their own bleak hill-sides, while the Rhode Islanders would offer scant encouragement to the peripatetic Italian banana vendor, as each and all of them would have a banana tree in close proximity to his own back porch. A more recent scheme is the bridging of the English Channel between Dover and Calais. It is said that this scheme has gone so far that a company has been formed to secure the necessary concessions from the British and French Governments. The cost of the bridge is some such bagatelle as \$240,000,000. The latest scheme is one for roofing London and other large cities, and thus doing away with the umbrella trust. The projector has not yet considered any such vulgar and insignificant detail as the matter of cost, and hence has not enlightened the public on this point. Such schemes are, of course, largely visionary, but they indicate a tendency to grapple with the most stupendous undertakings that is in a manner characteristic of the nervous and progressive age in which we live."

Blasting Holes For Trees.

Engineers engaged in irrigation are often called upon to carry out strange projects, among which blasting holes for trees is the most peculiar. All trees send their roots after moisture, and in places where the surface of the ground is dry, water can only be found some distance below the surface. The soil, in such cases is sometimes loosened to a depth of 8 or 10 feet, to enable the underground development of the trees to proceed more easily. The holes are made generally by means of 30 per cent. dynamite, in charges of about half a pound each, where the ground is nothing but earth. A hole about six feet deep is first made in the ground with a crowbar or a 2-inch augur. A piece of fuse is connected with a stick of dynamite and the latter placed in the bottom of the hole, which is then filled with dry sand. If no sand is at hand, any soil may be used, provided it is tamped well into the hole with a wooden stick. When the charge has been fired the ground will be loosened some distance below the bottom of the hole and for many feet around. There is little or no danger from the explosion, as the ground only heaves a little and no dirt is thrown. After the explosion a hole about two feet square and deep is dug and filled with surface mold and some fertilizer, in which the trees are planted. When water from an irrigating ditch is allowed to freshen the ground it naturally collects in the parts loosened by the dynamite, forming little reservoirs, from which the trees absorb moisture long after the surface layers are dry.

Humanity's Debt.

The one stupendous problem before which the student of social problems stands appalled is the deplorable condition of the masses. There is much in these conditions to test his faith in the final happiness of humanity. Perhaps we should not wonder that in his hours of desperation a sigh goes up for a return of the days that have gone. But what of these days? Here is one view of the situation given by Engineering, of London, Eng.: "It is when we compare the condition of the poor of to-day," says Engineering, "with that of previous ages, that we see how much the inventor has done for humanity. To know how hard life must have been before the advent of machinery, we have only to imagine a family set down on an island, and called upon to provide all their food and clothing without the aid of modern mechanical appliances—to plow and reap; to thrash, winnow and grind; to raise cattle, to kill and dress them; to shear, card, spin and weave their wool;

to make and mend their clothes, to provide soap, candles, tools, cutlery, earthenware, paper, pencils, nails, medicines, leather, boats, ropes, and the thousand and one things that are needed in a home. Evidently it could not be done, even if labor were continued from dawn to eve, and then extended far into the night; and this under favorable conditions of a yeoman's family, without rent to pay. How much worse must it have been under the exactions of a feudal landlord! Two-thirds of what we consider necessities must have been omitted from the list of that day, and to sore toil must have been added scanty fare and insufficient clothing."

Blood in Tree Culture.

"Blood will tell," so physicians say of the human family. Mr. H. B. Wetzell, in the *Tradesman*, discusses the relationship of blood, or good breeding, if you will, in the trees of the forest. He leans to the view that there is an explanation to be given for the peculiarities to be found in trees, and that the nature of cultivation and the haps and mishaps that have sometimes overcome the parent tree will have their influence on the progeny that shall come from this tree. Mr. Wetzell says: "Not long ago I sawed a poplar log, and after taking off the first slab noticed that the wood had a dark purplish color, growing deeper in color as we entered further into the log, until the whole centre of the log was almost inky black. The log was free from wind shakes and cracks, and I could not understand what was the cause that produced this strange thing. We turned the log over, and after entering nearly half way through found distinct marks of an edged tool, for a piece of the tree had been cut out and removed, and fermentation and decay followed. Afterwards the wound healed over and new wood to a depth of nearly two feet had covered the spot. My belief is that an Indian or early pioneer more than a hundred years ago had cut this wedged shaped hole with a tomahawk—for a common sized axe could not have done it—and possibly with such an instrument, and at a certain season of the year when the sap of the tree was vigorous, the tree became poisoned. Now it would be a matter of interest to know what influence, if any, that tree had upon the trees of which this was the parent. The things of nature are constantly undergoing change. Evolution is the order of natural law. New types, races and species appear and then disappear, and others take their place."

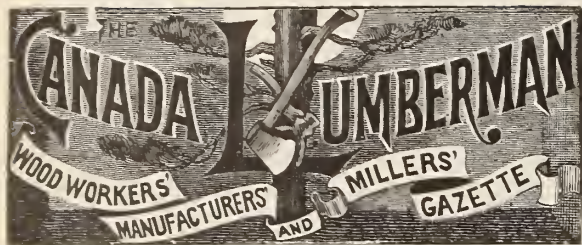
Does not Shrink.

The quality of shrinking in dry air and swelling under the influence of moisture is so intimately connected with our ideas of all kinds of wood that it is very difficult to accept suddenly the idea of a timber that is unaffected by water, as far as dimensions are concerned, either when absorbing or evaporating it, says the *Indian Textile Journal*. Such, however, is the case with a description of timber known as "Billian," which grows plentifully in Borneo, and is famous for its strength and durability both on sea and on land. Without being the heaviest known wood, for it weighs 60 pounds per cubic foot, against lignum vitae 83 pounds, boxwood 80, ebony 74, and African oak 62 pounds, it has a breaking strain 1.52 times that of English oak, while its weight is only 5 per cent. greater. Compared with Burmese teak, it is 62 per cent. stronger transversely, and 11 per cent. heavier. Billian or Borneo ironwood is a hard, durable wood of a dark-brown color. When seasoned it turns to a deep red, and with long exposure becomes as black as ebony. It resists the toredo navalis (so destructive to timber in salt water) and the white ant, and is almost indestructible. Its breaking strain is the highest of any known wood, and it is extensively used for sleepers, beams, piles, and for any construction requiring strength and durability.

EXTENSION OF THE TROLLEY.

THE legislature of New York has appropriated \$10,000 for the purpose of conducting experiments on the Erie Canal to determine the feasibility of the application of the trolley system to canal transportation.

The sawmill dogwood bark at everything, and it made the mistake of its life when it tried to chew up a steam nigger. Were it alive now, it woodent do so any more.



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J. S. ROBERTSON, EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

RAILROADS AND LUMBERING.

THE railroad, though not an uncommon affair to the eyes of the present generation, is yet comparatively a modern invention. In some parts of the world, India and Russia, for example, where railroad building is one of the developments of recent years, the railway train is almost as great a novelty as was Stephenson's "Puffing Billy" in the days of the first construction of the locomotive. And railroad building on anything like a stupendous scale, where the network of the iron rail has wormed its way into the most distant parts of the country, is confined largely to this newer world, whose enterprise and growth is being heralded to all parts of the civilized globe to-day by the medium of the big fair in the big White City of the west.

The lumberman owes much to the railroad for the facilities it affords in moving the products of the forest. The growth in this direction is such, as is shown by the shipping returns from important lumber centres like Saginaw, as to make its inroads into shipping by water, a matter of serious concern to vessel owners. In the twelfth annual review of the Saginaw Board of Trade we are told: "Ten years ago the lumber output was moved almost exclusively by water, while at the present time the railroads carry the greater portion of it. In 1892 more than 850,000,000 feet of lumber were moved out of the Saginaw river on lake craft, while for the season of 1892 the shipments only reached 347,000,000 feet." And the figures for the present season so far would indicate that the falling off will be still more marked.

Railroads are now built into the interior of the forest and are proving a valuable means of lessening the labor of logging operations to an appreciable degree. But railroads serve the lumberman not only in the transportation of his products and in opening up new and extending markets already established, but they are one of the large consumers of lumber in every country where railroad building is carried on. Just what the consumption

of lumber is in the building of railroad carriages themselves it is a little difficult to say, but we can understand that the figure must be very large. In answer to circulars sent out lately to railways in the United States we learn the round total of timber consumed for ties alone in that country is 516,000,000 feet, and 80,000,000 are annually required for renewals. Including bridges and trestle work the annual consumption of timber on railways is computed at 500,000,000 cubic feet, requiring the cutting of the best timber from 1,000,000 acres of forest land a year. To meet this demand, it is computed, that the area to be preserved for this purpose would probably exceed 50,000,000 acres, or more than 10 per cent. of the present forest area of the United States. As railway managers prefer "hewn" ties, and "one to the cut from small trees" the number consumed by railroads, or 20 per cent. of the total annual consumption, is taken from the young growth. Then 60 per cent. of all the ties are oak, the most valuable of all timber. Reliable investigation shows that in the Kentucky forests, where 40 per cent. of the natural growth is white oak, the new growth of oak is only 5 per cent. after the land has once been cut over for ties.

This is one phase of the railroad question in its relationship to the lumber trade, and shows where, at least, part of the lumber goes. The railways of the country are good customers of the lumbermen; the lumbermen are good customers of the railways. The railways do not always treat their lumber customers in the most liberal spirit, especially if there is no competing railway to give them trouble. But this is another phase of the railroad question in its relations to lumber, which, however, we shall not follow up in the present article.

BEFORE TOO LATE.

THE words of caution to business men expressed by Mr. Clouston, general manager of the Bank of Montreal, in his annual address to the shareholders, are worthy of being "posted up in some conspicuous place" in every office, store, factory and mill, or wherever men do business. They are not the words of an alarmist. No attempt is made to shake confidence in the commerce of the country. On the contrary, it is very clearly pointed out that Canadians have large ground for encouragement in the shape they find trade and commerce. But we are simply warned that these conditions can be spoiled if we do not take into consideration other conditions that also have an existence. "The coming year," Mr. Clouston tells us, "must be a year of caution, also a period of economy, and that applies to governments, cities, and municipalities as well as the commercial community, for we have been spending too much money; too much in subsidies to railways; too much in expensive works; and there has been too much good money wasted."

Around about us financial affairs are perturbed. In Australia no release comes to the stringency in money, and wreckage of monetary institutions that have brought disaster, broad and deep, to that country within the past twelve months. Not since 1873, their own journals tell us, have financial conditions in the United States been in a more depressed and uncertain state.

There, troubles might to a large extent have been obviated, if "governments, cities and municipalities, as well as the commercial communities" had conducted their affairs on the lines that it is suggested will prevent Canadians from falling into a similar snare.

No matter how bright may be the prospects, if the drain on current capital is too large, a crippled treasury soon follows. This is where Australia stumbled. She has been spending money as a government and municipally for years far in excess of her ability to realize on the expenditure in any reasonable period. And when this is the policy of governments the individual citizen is invariably led into similar extravagances.

Canadians have not themselves been free from these faults, though we have not been hit in the manner of other countries. Let us see that we do not invite the disaster which in being forewarned we may escape.

EDITORIAL NOTES.

THE department of justice at Ottawa has decided that the Dominion government has no right to grant exemption from the general law against the pollution

of rivers. Just what effect the decision may have on the sawdust in the Ottawa it may be interesting to watch.

THE lumber region about Ashland, Wis., has something of a reputation for waney pine. A fortnight ago, the Mississippi Valley Lumberman says the Canadian steamer Orion reached that port from Kingston for the express purpose of loading up with Ashland pine, taking away with her some 35,000 feet of timber. These timbers are to be taken directly to Liverpool, from Kingston, to be used in the construction of English merchant vessels and men of war. The captain of the Orion stated that he could take the timber directly from Ashland to Liverpool were it not that the Orion would require more coal than could be put on there. Some of the timbers loaded were not less than sixty feet long and two feet square.

THE shingle business on Puget Sound is in bad shape, fully one-third, if not one-half, of the mills in the state of Washington being idle. A correspondent of a lumber cotemporary puts it that "They are idle, because it pays them to be, not because there has been a slump in the demand." There is good reason to believe, however, that there is a slump in price. This is what has been the matter with the shingle business on the Sound for some time. There are, as this same correspondent admits, too many shingle men who are "between the devil and the deep sea." Shingle manufacturing has been overdone. The effort to keep up prices by means of a combine has proved a failure, and now, with a heavy stock, ye Pacific Coast shingle man is going to try and round things off some by closing down on manufacturing for a while and dispose of the stocks already manufactured.

THE British Columbia correspondent of the LUMBERMAN tells us this month of the hopeful possibilities of the lumber trade on the Coast. In several new directions, it would appear, a demand for coast lumber will, before long, be secured. A likely development that is not mentioned by this correspondent is contained in a step taken through the Rathbun Company agency in British Columbia. Mr. J. B. Spence, of Ceylon, has been making an examination of various woods that might be thought suitable for tea boxes. Out of these he has selected Douglas fir, which, in his opinion is a long way superior to the wood now obtained in Japan. A trial shipment of shooks has been placed with the Rathbun company to be used for this purpose. Shipments can be made direct from British Columbia to Ceylon, and as the tea trade requires about 1,000,000 boxes yearly, there are large possibilities in the trade.

THE impression is general among United States lumbermen that if the booms in which logs are to be towed from the Georgian Bay to Michigan are to be made subject to duty when coming into Canadian waters that the practice will have a serious effect on towing operations. Controller Wallace, when the matter was laid before him, held that the booms, if of United States construction, should pay duty on their first entrance, but agreed to leave the decision to the department of justice. The Marine Record, of Cleveland, Ohio, commenting on the case, says: "Should the ruling be enforced, it will drive American tug owners, and to a large extent American lumber dealers, out of the Canadian trade." Mr. E. F. Carrington, who visited Ottawa on behalf of Bay City lumbermen, is reported to have said on his return, that "it is simply a matter of opinion whether the booms are dutiable or not. The law of both countries, Canada and the United States, provides that a duty must be paid on manufactured timber when taken from one country to another. The Canadian government is disposed to look upon log booms as manufactured timber, inasmuch as they have been bored to make chain holes. The matter is held in abeyance until representatives of the two countries can come to some agreement. If this agreement is not reached, logging from Canada will be seriously handicapped." On the question of whether United States tugs should be allowed to do sorting work in Canadian waters the Controller has decided that such work must be done by Canadian tugs.



WHO is there that cannot join in the refrain of the old song, "The mistakes of my life have been many?" We all make mistakes, only some blunder more frequently than others. I am not going to tap this question, however, from the moral side, though a layman, as much as a preacher, might say a good deal from this point of view. I have had the thought come to me at this time through a suggestion from a cotemporary that a blunder account might, with interest and profit, be opened in the ledger of most business men. "A blunder account," this writer remarks, "should, if properly kept, throw light on a good many things in connection with a business. Some travelling men might not seem so valuable if all their mistakes were charged up to them, and the factory might be held to a stricter account if the mistakes of the foreman were properly entered up, while the proprietor himself might sometimes have a particular entry against his name." I believe readers will go with me when I say that such an account could find an appropriate place in the ledger of those engaged in lumbering in almost any branch. It would prove valuable in intelligently explaining many items that get on to the unfortunate side of the profit and loss account.

* * * *

J. S. Larke, executive commissioner for Canada at the World's Fair, writes the LUMBERMAN as follows: "I had a short visit from Mr. A. de Haan, of the firm of Haan & Zoon, Beltweg, Amsterdam, Holland, who are very large box-makers and consumers of lumber in that city. I took him down to our exhibit of lumber and timber, and he seemed to think there would be a very considerable market in Holland for our cheaper grades of lumber, such as spruce, tamarac and balsam, with some hemlock. The competition would be between the pine of Norway and this lumber, which would be suitable for boxes and other purposes. The firm will be glad to hear from any lumbermen in Canada who may see a prospect of business."

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Mr. W. R. Noss, representing Herman Noss, lumberman, York, Pa., was in Toronto on business a fortnight ago. Mr. Noss is a regular visitor to this city, his firm doing considerable business in Canadian lumber. He says there can be no doubt that the financial disturbances in the United States are being felt in lumber circles. He instanced the case of a considerable quantity of lumber placed on one of the piling grounds in his own state which it was impossible to move just now. The lumber was not, as the term is generally understood, a drug on the market; nor was there any depreciation of price, but simply no one was in a humor to do business until the financial horizon became clearer. Bankers were pursuing a very conservative course, and in the case of dealers who leaned too largely on the banks, they would of course feel the pinch.

* * * *

It is quite useless, I take it, to close one's eyes to the fact that the money troubles of our neighbors across the border are having a depressing influence on the lumber trade of both Canada and the United States. If nothing worse is happening, and I do not think values have declined to any large extent, these troubles are having the effect of staying operations that would otherwise be active. As the old adage runs, it is money makes the mare go, and when there is little money moving there is little go in the business mare. "One effect of the financial depression," says an American lumberman, "is noticed in the suspension of pine land deals. It is said that the bottom of the stumpage market has suddenly dropped out, and that there is scarcely a deal on the tapis. This is particularly noticeable in Canadian stumpage. It is stated that there is not a crew of land-lookers in the woods in Canada, and that very little, if

anything, would be done until the financial clouds roll by. Money for large deals is difficult to be had even if operators were inclined to invest and just now they are not."

* * * *

A lumber dealer from Albany, N.Y., in conversation with a newspaper correspondent told the following story of the growth of the Albany lumber market. "Fifty years ago," he said, "there were hardly more than half a dozen lumber dealers in Albany whose business entitled them to be called wholesale merchants. One of our modern lumber firms will do more business in one season than all of those did in the aggregate forty or fifty years ago. From a small beginning Albany developed into one of the leading lumber marts of the country. In the early history of the business the Albany dealers received their supplies in the shape of logs. These came down the streams of northern New York in rafts and were sawed into lumber by Albany mills. The principal sources of supply now are Canada and the northwestern states of Michigan, Wisconsin and Minnesota. A few years ago Saginaw supplied the bulk of the white pine handled in Albany, but now supplies come from the Lake Huron shore, from Georgian Bay, upper Michigan, Ashland and Duluth. Forty years ago the gross annual sales of Albany dealers did not exceed \$1,500,000; now there are single houses that do business to very nearly if not quite that amount. Then a dealer felt supremely happy in a little six by nine shanty, furnished with \$20 worth of fixtures and would consider a man a prodigal who would invest \$500 in a structure for business purposes. Now the dealer sits in his Gothic or Corinthian office, elegant and commodious, with modern conveniences that his predecessor never dreamed of. This is the way of the world in this modern age of progress."

* * * *

It has been alleged that the towing of logs in the Georgian Bay to the extent that has become a practice for a few years past is having a hurtful effect on the fisheries of that district. In one way this is not a lumberman's question and yet clearly if the statements that are made be correct the government in giving full consideration to the subject cannot but take cognizance of them. I have always believed that in the consideration of any question nothing is gained by hiding facts, or even what may only be alleged facts. Common sense, like water, finds its level, and is quick to scent a line of argument that is weak or false. Taking this view of matters I give here certain statements recently made by a writer in the News regarding the subject of towing and fishing: "The greater part of the rafts in which these logs are taken across Lake Huron are made up near French river. In heading for the gap leading into Lake Huron from Georgian Bay they cross longitudinally a reef covered with shallow water extending eastward from Lonely Island. About that reef there existed at one time the best fishing grounds in Georgian Bay. But for five or six years past immense rafts consisting of fifty to sixty thousand pieces have been passing over this section of the bay. When the logs left French river they were covered with the natural bark; but in crossing the water every particle of bark had rubbed off and a great portion of it was deposited in the fishing grounds referred to. So great is the deposit left that the worms on which the white fish feed have been largely destroyed by it and the fish have either died in consequence or removed elsewhere. But this is not all. The bark, while held in suspense in the water, plays havoc with nets of fishermen. So great is the damage thus caused, indeed, that fishing operations are practically suspended on the first of September in each year, although the close season does not begin until November first, because the bark driven about by the equinoctial gales ruins nets left in the water while the fall storms are on. As a result of the shortening of the season and destruction of the fishes' food the catch at Squaw Island station, which eight years ago went as high as 800 tons in a season, now barely reaches 350 tons. Allowing logs to be sent away in the round is not only ruining the Canadian sawmilling interests, but destroying the upper lake fisheries as well. The government should re-impose the export duty on logs and thus protect two great natural industries of the country."

NEWS AND NOTES.

A loss of \$1,200 by fire, was incurred at Bartlett's planing mill, Cambellford, Ont., on 25th ult.

The Canada Eastern railway, running between Chatham and Fredericton, N.B., is now managed by Mr. Alex. Gibson, the well-known lumberman.

Jerry Cowick, a shanty foreman in the employ of Mr. J. R. Booth, Ottawa, Ont., was drowned in the river Dumoine, Upper Ottawa, a week ago.

The Sutton Lumber & Trading Co., of Euculet, B.C., has been organized with a share capital of \$100,000. W. J. Sutton, Wm. Sutton and J. E. Sutton are the first trustees.

Wm. Beatty's sawmill at Parry Sound, Ont., was totally destroyed by fire on Sunday, 23rd ult. The lumber docks, tramways and houses in connection were all saved. Loss, about \$10,000; partly covered by insurance.

George D. Prescott, who recently bought an extensive tract of timberland in Albert county, N.B., is building three large driving dams on the West river. It is estimated that the property contains 12,000,000 feet of standing timber.

An office provided for at the last session of parliament, and to be known as Dominion government inspector of timber cutting and timber shanties, has been filled by the appointment of Mr. George L. Chitty, who was for twenty years in the employ of the Gilmours, and is spoken of as a capable man.

A Bank of England note is not of the same thickness all through. The paper is thicker in the left-hand corner, to enable it to take better and sharper impression of the vignette there, and is also considerably thicker in the dark shadows of the center letters and under the figures at the ends. Counterfeit notes are invariably of one thickness throughout.

It is estimated that over 2,500,000 logs are on their way down the Ottawa to the Chaudiere. The Kippewa is one mass of logs for two miles from its mouth, and they are passing down to the main stream at the rate of from 30,000 to 40,000 a day. The counting of these logs is all done by one man, who it is said can count 30,000 logs a day with ease, and when put to it can count 40,000.

News has been received at Ottawa of the drowning of a young raftsmen, of Hull, Mr. Theophile Cabana, together with a companion at Des Roches Capitaines on the Ottawa river between Des Joachims and Two Rivers. The rapids at that place are said by old rivermen, to be far the most dangerous on the whole Grand river. Cabana with five other men was on a crib of square timber when it suddenly was caught in the current running over the falls. The other four managed, in some miraculous manner, to escape.

Next month, for ten days, commencing September 4, the Toronto Industrial Exhibition will be in full swing. Recently Manager Hill has visited the World's Fair and various American cities, and has bagged the strongest attractions to be found on the continent. The industrial, mechanical and agricultural departments will be largely augmented this year. Altogether a very special effort is being put forth to make the exhibition vastly superior to anything hitherto attempted by the Toronto Industrial. It is to the credit of President Withrow and his associate directors to say that they do not attempt anything without success.

Mr. Chitty, of the Indian department and Mr. L. Laughran, of Ottawa, left last night for Bay City, Mich. They are sent by the government to measure a boom of logs at that city got out in the Indian reserve on Vermillion river. It seems these logs were taken out by a man named Robinson and sold to an American firm who commenced towing them away. No return was made to the Dominion government as should have been done as the logs were cut on the Indian reserve, and Indian reserves are completely under the control of the Dominion government. When the fact of the logs having been taken to the United States, without any returns became known, the government at once placed a seizure on them until their exact measurement could be ascertained.

Mr. Hector McRae, of Ottawa, has acquired the control of a patent, from a German, of a process for the treatment of beech and birch woods, which is likely to prove of very great value. It consists in the treatment of birch and beech wood, in plank and otherwise, by which the heart and texture are preserved solid, safe from splitting, by which at least 40 per cent. of wood has been hitherto lost during its seasoning. The process also includes a thorough staining of the wood, in color from a bright oak to mahogany. The process takes from three to four days. There are thousands of acres of birch and beech lands in Eastern Canada which will be largely increased in value by this important discovery. Mr. McRae has had erected a structure on the mill premises of Mr. D. O'Connor, Bank street, Ottawa, for the treatment of wood for cabinet purposes. It is now in use on the first supply.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

ALD. BINGHAM is enthusiastic over the quality of logs that are coming from the drives this season. He says that in his 19 years' experience on the Gatineau he never saw such fine logs as those now on the way down to be sawn in Gilmour's mill at Gatineau Point. There are thirty thousand logs 16 feet long, and their diameter at the small end is about 27 inches, almost double the size of the ordinary log. Edwards & Co. have a lot of fine logs coming down, but they are not so large as Gilmour's, which were cut in a virgin limit.

INDIFFERENT LENGTHS.

W. C. Edwards & Co. are enlarging their piling grounds.

Gilmour & Hughson's new mill at Hull Point will commence running, it is expected, about the 15th of next month.

The E. B. Eddy Co.'s large planing mill at the Chaudiere is rapidly being transformed into a paper mill.

The Hawkesbury Lumber Co.'s drive of logs are running out at the mouth. The first boom was commenced on 10th inst.

Wm. McBeth, of Saginaw, Mich., is in the city superintending the placing of machinery in Gilmour & Hughson's new mill at Hull Point.

Death has claimed Mr. Robert S. Montgomery, one of the early residents of Ottawa, and who at one time was engaged in lumbering in these parts.

A large raft of 187 cribs of fine square timber of Klock's is one of the river departures of the month. Old rivermen say it is one of the best that has come down the river for some time.

Ed. Bourque, a bright Ottawa boy, son of Mr. S. Bourque, of this city, has been appointed lumber inspector of the West Bay City Manufacturing Company, Mich., a concern which does a very large business.

The Bronson & Weston Lumber Company have all their drives out of the tributary streams in the Ottawa, except that from the Madawaska. There are a large number of logs belonging to McLachlin Bros., and other companies, which will be sorted out in the deep water before being sent down the Ottawa. This drive is never out before August. Men are also employed under Mr. David King constructing a little railroad line from the shores of one of the lakes.

George Richardson, a man who came down from the woods a week ago, and who was stopping with friends on Lisgar Street, accidentally fell over the cliff at Major's Hill Park, directly opposite the old brewery. He rolled down the slope a distance of about 25 feet, and then dropped almost straight down fully 30 feet, to the road beneath. Some bushes and stones broke his fall, and thus he was saved from a terrible death. His head was badly cut and his body severely bruised, but he was not unconscious when picked up.

Shipping in lumber at the Chaudiere yards is becoming more brisk. A new dock is being constructed at the wharf opposite Booth's large mill, which will afford better facility to barges loading in that place. Since the floods in the spring this wharf has not been used for shipping, but now that it is built up with fine new lumber, barges will be brought up there instead of crowding into the little inlet on the Hull side of the Suspension bridge. The repairs will be finished in a short time. A large number of barges are waiting for loads of lumber. There are eight American barges below the Queen's wharf, and about the same number on the Hull side.

OTTAWA, Can., July 27, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

ONE is hardly wrong in the opinion that for a year or more the lumber trade of the Pacific Coast has in several important respects been restricted. I need only refer to the financial disturbances in the markets of South America, and the more recent and severe and continued financial depression in Australia as material causes producing these results. A little time, however, is all that is required to restore these markets to their old-time life and importance. But what pleases British Columbians most, perhaps, when the question of their lumber resources is under discussion, is the undoubted possibilities that the future will certainly develop. Reference has been made several times of late in these letters to the very favorable impression our lumber is making in the British markets. And the better it becomes known the stronger this impression grows. We are again reminded of this fact from an article that appeared in a recent issue of the Western Weekly News, of Plymouth, Eng., bestowing unstinted praise on the good qualities of British Columbia lumber that has reached that port. The News says: "Probably the best timber ever imported into Plymouth arrived last week in Cattewater from Vancouver, British Columbia. The timber varies in length

from 30 to 90 feet, is sawn all four sides, and is perfectly straight and even. It is admirably adapted for the construction of ships and yachts and building purposes. The vast forests which fringe the western coast of North America produce the finest timber in the world, and they are 'worked' by companies with as much energy as Cornish mines."

A SIGNIFICANT SHIPMENT.

The recent arrival at Montreal of the bark Highlander, from Vancouver, with a cargo consisting of 697,000 feet of Douglas fir, and 200,000 feet of cedar boards, has, I am informed, created unusual interest in lumber circles in the Eastern metropolis. The cargo was consigned to J. & B. Grier, of that city, this firm retaining about two-thirds of the cargo, and the balance will be shipped to Glasgow, Scotland.

NEW WESTMINSTER, B.C., July 22, 1893.

NEW BRUNSWICK LETTER.

[Regular Correspondence CANADA LUMBERMAN.]

IT is a long way around from British Columbia to the Maritime Provinces. Lumbermen from the Pacific Coast, however, do not intend to allow distance to be a barrier in placing their splendid timbers in these provinces. The story has already been told in LUMBERMAN columns of the arrival of British Columbia timber, for ship-building, in this section of the Dominion, and this trade we are hoping has only commenced.

Another indication of trade between these two corners of confederation is found in the visit here this month of George Cassidy, a large lumberman, of Vancouver, B.C. Mr. Cassidy is a native of Miramichi, and some six years ago operated a small mill at Chatham. This fact gives a pleasurable zest to his coming among us just now. Mr. Cassidy is anxious to see the woods of his adopted province take a good hold in his old home. He is showing miniature samples of doors, sash, etc., made of cedar that are quite captivating in their beauty to the trade here. Mr. Cassidy has already done business in New Brunswick, and also in Boston, and trusts his present visit will lead to a larger development of this trade.

SEASIDE SPLINTERS.

Seeley's Mill, at Greenwich, recently destroyed by fire, will be rebuilt.

Vessels are in great demand to take cargoes of sawed lumber from points at head of Bay of Fundy.

Coastwise freights have advanced 25 cents on lumber to Boston and 5 cents on laths to New York.

Four cargoes, embracing 4,206,635 superficial feet of deals and 293,851 feet of ends, were shipped to Great Britain, from Parrsboro, N.S.

The sale of timber licences of crown timber lands, which is advertised for August 29th is being looked forward to with much interest by lumbermen. It is not unlikely that lumbermen from the other provinces may take a hand in the sale.

ST. JOHN, N.B., July 25, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

A STUDY of the business situation at the leading lumber points in this State shows no little stagnation. Mills, it is true, are fairly busy, and logs are arriving in large quantities, but selling and buying are at a low ebb. This is a reaction from the bright conditions at the opening of the season, and is chargeable to the generally disturbed financial conditions throughout the country. We may expect that commercial operations will be conducted on a limited scale, certainly, until after the action of Congress in August is clearly understood. This does not mean any serious collapse in lumber. Disaster will doubtless occur to some extent, for in every trade there will be found some who cannot withstand even a slight storm. Happily the lumber trade is at the present time in a healthy and vigorous condition, and while the shrinkage in operations that will take place will be a disappointment to everyone, it is not anticipated that any trouble in lumber will go beyond this.

BITS OF LUMBER.

The mills at Menominee are running overtime.

450,000 feet of deals have been loaded at Manistee, for Quebec. Rather better than a dollar in excess of last year's prices for similar stock was secured. The steam barge Clinton takes a load of Elm timber for Quebec. This makes five loads shipped from this point this season.

Sibly & Bearinger have been successful, after much labor, in securing a raft of 2,000,000 feet of logs that went ashore last fall in a gale at North Point, near Alpena, while being towed from Georgian Bay. The logs have been towed to Alpena and will be used by the Minor Lumber Company.

Three towing associations are employed in bringing logs from up our own lakes and from Canada. The rate on logs from Georgian Bay is \$1.50 a thousand, and no losses have been incurred so far this season.

Thomas Pitts, of Bay City, is an addition to the many lumbermen of this State, who are this year securing their supplies of logs from Canada. The Saginaw Lumber and Salt Company have received some large rafts this month from the Georgian Bay territories. Albert Pack, of Alpena, has received over 8,000,000 feet of logs so far from the Canadian North Shore.

E. Jennings's shingle mill at Pinconning is cutting 35,000 a day, and during the last six months the output has been 9,000,000 shingles. A new heading mill has just been built to be operated in connection with the shingle mill at a cost of \$5,000 dollars. An excelsior mill with 26 machines is also operated in connection with the shingle and hoop plant. Mr. Jennings operates a force of 57 men. He has recently purchased 3,680 acres of timber near Vanderbilt, which will stock the plant for a number of years.

SAGINAW, Mich., July 28, 1893.

BOILERS.

THE causes of deterioration in boilers is varied. In some districts, the feed-water contains an excessive quantity of salt, or of acid or it is taken from copper mines or artesian wells. All these are detrimental to the good condition of a boiler. The feed-water should be the best obtainable, and many explosions have been caused by negligence in this respect. Boilers should never be set in damp places, for external corrosion is injurious. The introduction of a fresh supply of water is, owing to the rapid generation of gases and the sudden excess of pressure, another fruitful cause of explosions. For the same reason an explosion sometimes takes place when the engineer, discovering low water, raises the safety-valve and starts the engine; it relieves the pressure of steam, causes the water to rise and strike the heated parts, and steam in consequence is heated over-quickly.

It would materially decrease the risk of explosions if the following points were always observed:

There should at all times be a sufficient quantity of water.

There should never be a higher pressure of steam than can be helped; the pressure allowed by the inspector should under no circumstances be exceeded.

The boiler should be allowed to cool down before being refilled.

Before starting the fire, it is well to try the water gauges and to see that the water is at proper level in the glass gauge.

Glass gauges and gauge cocks should be kept in perfect order; the openings should never be allowed to stop up. Otherwise, owing to the quantity of scale and sediment, one is apt to be deceived as to the real water-level.

The safety-valve should be kept in perfect working order, be lifted and oiled at short intervals, to prevent corrosion, and occasionally it should be ground in.

If the steam gauge and safety valve are found not to correspond, the former should be tested, and if defective, repaired without delay.

The steam gauge should not be exposed to much heat. The pipe should be so arranged that the condensed water will act on the gauge and not the steam direct. There should be a small cock to prevent the freezing of condensed water in cold weather.

The boiler should be cleaned often, and after each cleaning, it should be examined internally so that any defectiveness in the braces, fire-box, crown-sheet, or other part should be discovered and rectified at once.

Water should not be put into a boiler at low temperature. It is best to use feed water heaters or injectors, which, in the long run, are economical, and add to the boiler's lease of life. The feed-pumps should be kept in good order.

A stop-valve should be put between the check-valve and the boiler, so that the former may be easily examined at any time.

Finally, the best safeguard against the risk of an explosion is to take great care in keeping every part of the boiler thoroughly clean and in good working order.

THE NEWS.

CANADA.

—A new sawmill is to be erected at Warren, Ont.
—C. Young, of Young's Point, Ont., is running his mill night and day.

—Alex. Dubriuil, lumber jobber, Matawatchesan Tp., Ont., has assigned to F. M. Devine.

—The lumber mills of the Sanderson Company, Brandon, Man., are running a large business.

—Campbell & Ferguson, lumber, Melita, Man., have dissolved; Campbell & Campbell continue.

—Alex. Fraser, of Westmeath, Ont., has a fine lot of timber running out at the mouth of the Petawawa, and has commenced to raft up.

—Messrs. John Smith & Sons, lumber merchants, Callendar, Ont., have installed an arc and incandescent electric light plant for lighting their mills and yards.

—H. W. Freeman, of Jordan River, N.S., has purchased all the personal and real property of the firm of S. Freeman, of that place and intends carrying on a lumber trade in the vicinity.

—Booth & Hale's square timber shipped by rail from Sturgeon Falls is now being rafted up at Papineau. It consists of two rafts and it will be on its way to the Quebec market about August 10.

—An Ottawa dispatch says: Messrs. Carswell, Barnett & Mackey have a large raft of square timber lying at the mouth of the Petawawa. They intend to keep it there until they can get a market for it at good prices.

—The Central Counties railway has moved 21,000,000 feet of lumber from Hawkesbury to Glen Robertson, to go forward to the American market by Canada Atlantic railway during the past seven or eight months. The lumber comprised about half of last year's cut of the Hawkesbury Lumber Company. The remainder of the cut was shipped by boat.

—The Katrine Lumber Company, with a capital of \$55,000, is applying for a charter to the Ontario government. The operations of the company are to be carried on in the city of Hamilton, and in the district of Parry Sound, Ont. Robert Thomson, William Wallace Belding, Joseph Charteris Thomson, Thomas Meaney and Albert Waters Belding are to be the first directors of the company.

—"We have it on good authority," says the Rat Portage Record, "that the water power now used by Dick & Banning's sawmill is to be purchased by a United States company, who intend to build one of the largest sawmills in this vicinity. Four members of the firm have been exploring the Rainy River district for timber, and have, it is said, located over 200,000,000 feet of timber since the first of May and they say there is lots more in sight. They intend to build their sawmill in the course of next winter, and will start work early next spring."

—Judge Deacon had an interesting case before him at Pembroke a few days ago. Mr. Alex. Gordon, lumberman, of Pembroke, Ont., sued Lawrence Ryan, who lives near Almonte, for \$200 for breach of contract. Ryan hired Gordon seven teams at \$1.25 per day to work in the shanty, drawing logs. Gordon paid railway fare to Mattawa which cost him \$95. The men and horses reached the shanty on Saturday, but left the work on Monday following, of their own sweet will and hired with another man. The teams were engaged for the winter. After a two days' hearing Gordon won, getting \$165.

—The Canadian Lumber Company, of Elmira, N.Y., who applied a month ago for a temporary receiver to take charge of the business, find their affairs in a very satisfactory shape. The trouble arose directly out of the failure of the Elmira National bank, where the concern kept their account. The liabilities are only about \$150,000, whilst the assets are \$208,000, and of a character that cannot, it is claimed, lose by shrinkage more than \$10,000. The president of the company is Mr. W. H. Pratt, the principal of the Conger Lumber Co., who with his fellow directors undertakes to see that every dollar owing is paid. A better assurance of a successful outcome of the trouble need not be given. The business will be continued as usual.

GENERAL.

—David Dobie, West Superior, Wis., has contracted to put in 25,000,000 of logs a year for the Weyerhaeuser syndicate. The contract is to run ten years, and it is reported the compensation will be \$4.50 a thousand. The pine is in Douglas county, and it will require the building of 25 miles of railroad to transport the logs to St. Croix Lake.

—John B. K. Blain, a prominent lumber merchant of Washington, D.C., while suffering from a hallucination, climbed to the roof of his house and took a running jump into the street

below, apparently under the belief that he was diving into a pool of water. His death was almost instantaneous. He leaves an estate valued at over \$200,000.

—Curly pine is to be had by the millions of feet in Western Louisiana, and at very cheap prices. Its use for lining a lady's boudoir, a smoking room, or a dining room in a private house, or in saloons or public halls has been practically demonstrated.

—A great many of the finest foreign oaks are said to be planted in Delaware. A large Spanish oak, eight feet in diameter at the base, was recently cut down near Georgetown, that state, and from this giant was squared a stick of timber sixty feet long and two feet square from end to end.

—"The smallest in years," is the remark applied to the shipments of lumber by the water route from the Saginaw river during June. Only 16,952,000 feet went by water from Bay City as compared with 39,780,000 for the same month in 1892; and 9,610,000 feet went from Saginaw against 16,600,000 in 1892. Saginaw shipped 2,100,000 lath and 1,100,000 shingles, and Bay City shipped none of either.

FIRES AND CASUALTIES.

FIRES.

The McLaurin sawmills at Lachine, Que., were destroyed by fire.

Thomas Burns' sawmill at Kingston, N.B., was burned on 12th July. No insurance.

The sawmill of A. E. Cullis, Auburn, Ont., was completely destroyed by fire a fortnight ago.

July 10th, the sawmill of John Whiteside, Huntsville, Ont., was burned to the ground. Loss, \$10,000; insurance, \$3,000.

A disastrous fire occurred in the stave mills of D. H. Taylor & Sons, on July 7th, destroying a large quantity of staves and lumber.

A fire broke out in McGarvin's sawmill, Chatham, Ont., on 18th ult., reducing the building to ashes. Loss about \$6,000; insurance, \$500.

The statement that has appeared in the press that the Davidson & Hay mill at Cache Bay, Ont., was partly destroyed by fire a month ago is wholly incorrect. On the contrary the firm are about to put in an electric plant and will run their mill night and day.

CASUALTIES.

D. Clarke, a sawyer at Masson's mill, Ottawa, Ont., lost two of his fingers by a saw a week ago.

Rufus Manning, of Fenelon Falls, Ont., was drowned at Kinmount, while at work on a drive of the Rathbun Company.

Patrick Dwyer, while engaged on a drive for the Dickson Company, Peterboro, Ont., slipped into the water and was drowned.

Pat Keough got his jaw splintered when at work in Richardson's sawmill, Elora, Ont., being struck with a piece of broken machinery.

John McGee, employed in a mill at Chatham, Ont., lost two fingers and the thumb of his left hand by carelessness around a buzz saw.

A. Melvin, a pioneer settler of Chaffey, Ont., while at work in McConachie's mill on the Portage, lost his entire right hand by coming in contact with a saw.

A workman named Amyot got his hand caught in the knife of the buzz planer in Thackray's mill, Ottawa, Ont., and lost the end of his thumb.

Gottlieb Dunhausen, when working a planer in Wilson's sawmill at Louise, Ont., caught his clothing in the machinery and received frightful injuries of the bowels.

Samuel Rufflub had his left arm nearly torn off at the shoulder, and his left leg badly lacerated by being caught in a belt at Ferguson's mill, near Nipissing Village, Ont.

Jos. McKenzie, of Deux Rivières, Ont., a hand on one of the Sheppard & Morse Lumber Co.'s rafts, was struck by a train and mangled in a fearful manner, dying from his injuries.

Matt. Comely, engaged as logman on the steamer Victoria, while getting out a boom of lumber on the Safety Bay Lumber company's mill, Norman, Ont., was drowned by falling off the boom.

Alexander McDonald, employed in a Gravenhurst sawmill, was caught in a belt and received severe injuries, all his clothing being torn off and his body badly bruised. It is thought he will recover.

While bathing in the Petawawa on the afternoon of 18th ult., Alexander Barnett, second son of A. Barnett, lumberman, of Renfrew, Ont., was seized with cramps and was drowned in five feet of water.

Nelson Sanderson, a shantyman, who had been on a heavy spree, while sitting on a bench in front of a hotel in Ottawa, Ont., rolled off the bench on to the sidewalk and expired almost immediately.

PERSONAL.

Mr. Andrew Miscampbell, M.P.P., the well-known lumberman, of Midland, Ont., has again been nominated to contest East Simcoe in the Conservative interests.

Wm. H. Depencier, an aged and well-known citizen, of Kemptville, Ont., is dead. For many years he was an active lumberman and spent much time rafting on the Rideau.

A pretty wedding took place in Ottawa a fortnight ago when Mr. H. J. Friel, of the department of public works, was married to Miss Aggie, youngest daughter of Mr. Richard Nagle, lumberman.

Mr. Wm. J. Mathers, of Neepawa, Man., a well-known lumberman of the Prairie Province, has joined the benedicts. The happy bride was Miss Ada M. Wittsie, of Brockville, Ont. Congratulations.

THE NORTHEY MANUFACTURING CO.'S NEW PREMISES.

The Northey Mfg. Co., of this city, manufacturers of pumping machinery, have just completed and equipped a new factory at the King street subway. A representative of THE LUMBERMAN recently paid a visit to the new works, and was taken in hand and escorted through the premises by the courteous secretary-treasurer of the company, Mr. J. E. Pell.

The main building is laid out on the most approved modern lines, and divided into three wide bays of about 30 feet each. This building is 250 feet long, and the pattern shops, brass foundry, boiler house, pattern storage, offices and subsidiary buildings are on a proportionate scale. The side bays are to be used for the small tools, and the centre bay for the heavier tools, erecting, testing, etc.

This division is equipped with surface and overhead transportation machinery of the latest and best description, working in connection with private switches from the Canadian Pacific and Grand Trunk railways. The handling and shipping facilities are thus most complete.

The tool equipment includes the best special modern machines for single and duplex pump manufacture, turning and boring machines, gang milling machines, screw and turret machines, etc.

Fuel gas is used for boiler firing, heating of factory, forges and brass melting pots; electricity for lighting factory and working travelling crane.

This is by far the best equipped and largest hydraulic works in Canada, and turns out work which commands a large and increasing sale.

HOW FIRES START.

THE origin of fires is often mysterious, and in mills and factories, when no other cause can be assigned they are usually charged to "spontaneous combustion"—usually another name for somebody's carelessness. But fires do sometimes originate curiously. Thus, it is related that in one instance, where some waste, which had been used with mineral oil, had been thrown into a safe place, an insect crawled through it, and then, carrying some pieces of the oily fibre sticking to his body, made his way to a gas jet. The cotton fibers which adhered to him caught fire, and he dropped, blazing, to the floor, setting the building on fire. In another case, a quantity of waste was said to have been ignited by the friction of a belt running close to it. This, however, may be considered doubtful. The friction of a belt against soft cotton is by no means of a nature to produce great heat, and a much more rational explanation is to be found in the supposition that an electric spark passed from the belt to some conducting substance through the cotton, which is ignited on its way, as sparks of frictional electricity can easily do. In fact, the electrical effects accompanying the running of large belts are quite important, and it is probable that more than one fire has been due to them. Sparks can be taken by the finger from almost any large belt in motion, and an instance is related where an ingenious engineer, by fixing a metal comb near the belt, succeeded in drawing off enough high-tension electricity to enable him to light the gas jets in and about the engine room without matches, by simply touching them, after turning on the gas, with a wire connected with the comb.

The sawyer certainly should always have a s(w)age look on his face and be fond of saws(w)age.

TRADE REVIEW.

Office of CANADA LUMBERMAN, } July 31, 1893.

THE GENERAL SURVEY.

THE individual mention that we have given below of the United States and foreign lumber markets reflects quite fairly the condition of the lumber situation at home and abroad.

Summarizing local conditions in different parts of the Dominion, it may be said, that in Ontario dullness prevails; in Quebec, shipments are less than a month ago, lumber that is ready for shipment at Montreal is being held back because of dull trade abroad.

FOREIGN.

In their wood circular of current date Farnworth & Jardine, of Liverpool, Eng., say: "The arrivals from British North America during the past month have been 26 vessels, 20,530 tons against 16 vessels, 16,261 tons during the corresponding month last year, and the average tonnage to this date from all places during the years 1891, 1892 and 1893 have been 135,095, 120,989 and 107,217 tons respectively."

UNITED STATES.

The lumber trade of the United States is meeting with not a few commercial vicissitudes as a result of the continued monetary depression. Quite a few failures are reported, and it is feared that others are yet to come, if there is not a speedy easing of money matters.

TORONTO, ONT.

TORONTO, July 31, 1893.

CAR OR CARGO LOTS.

Table listing various lumber products and their prices in Toronto, Ontario, including items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table listing yard quotations for various lumber products such as Mill cull boards and scantling, Shipping cull boards, Scantling and joist, etc.

OTTAWA, ONT.

OTTAWA, July 31, 1893.

Table listing Ottawa market prices for various lumber products like Pine, good sidings, Pine, good strips, etc.

QUEBEC, QUE.

QUEBEC, July 31, 1893.

WHITE PINE—IN THE RAFT.

Table listing Quebec market prices for white pine in the raft, categorized by quality and measurement.

RED PINE—IN THE RAFT.

Table listing Quebec market prices for red pine in the raft, categorized by measurement and quality.

OAK—MICHIGAN AND OHIO.

Table listing Quebec market prices for oak from Michigan and Ohio, categorized by measurement and quality.

ELM.

Table listing Quebec market prices for elm, categorized by measurement and quality.

ASH.

Table listing Quebec market prices for ash, categorized by measurement and quality.

BIRCH.

Table listing Quebec market prices for birch, categorized by measurement and quality.

TAMARAC.

Table listing Quebec market prices for tamarac, categorized by measurement and quality.

STAVES.

Table listing Quebec market prices for staves, categorized by measurement and quality.

Table listing Quebec market prices for merchantable pipe and W. O. Puncture, categorized by quality.

BOSTON, MASS.

BOSTON, Mass., July 31.—Prices have shown a slight advance during the month. Western pine is in good demand. Shingles are dull.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing Boston market prices for eastern pine cargo or car load, categorized by board type and measurement.

WESTERN PINE—BY CAR LOAD.

Table listing Boston market prices for western pine by car load, categorized by board type and measurement.

SPRUCE—BY CARGO.

Table listing Boston market prices for spruce by cargo, categorized by board type and measurement.

LATH.

Table listing Boston market prices for lath, categorized by measurement and quality.

SHINGLES.

Table listing Boston market prices for shingles, categorized by type and quality.

OSWEGO, N.Y.

OSWEGO, N.Y., July 31.—Trade is holding up fairly well under generally depressed financial conditions.

WHITE PINE.

Table listing Oswego market prices for white pine, categorized by board type and measurement.

SIDING.

Table listing Oswego market prices for siding, categorized by board type and measurement.

1X12 INCH.

Table listing Oswego market prices for 1x12 inch lumber, categorized by board type and measurement.

1X10 INCH.

Table listing Oswego market prices for 1x10 inch lumber, categorized by board type and measurement.

1X10 INCHES.

Table listing Oswego market prices for 1x10 inch lumber, categorized by board type and measurement.

1X4 INCHES.

Table listing Oswego market prices for 1x4 inch lumber, categorized by board type and measurement.

1X5 INCHES.

Table listing Oswego market prices for 1x5 inch lumber, categorized by board type and measurement.

SHINGLES.

Table listing Oswego market prices for shingles, categorized by type and quality.

LATH.

Table listing Oswego market prices for lath, categorized by measurement and quality.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., July 31.—The labor troubles between lumber shovers and employers, which have dragged along for some months, are now happily ended, and have resulted in a complete cave in of the men.

WHITE PINE.

Table listing Buffalo and Tonawanda market prices for white pine, categorized by board type and measurement.

BOX.

Table listing Buffalo and Tonawanda market prices for boxes, categorized by measurement and quality.

SHINGLES.

Table listing Buffalo and Tonawanda market prices for shingles, categorized by type and quality.

LATH.

Table listing Buffalo and Tonawanda market prices for lath, categorized by measurement and quality.

ALBANY, N.Y.

ALBANY, N.Y., July 31.—Lumber business is decidedly dull. That is a blunt way of stating the situation, but it is a fact. Prices nevertheless keep firm and there is little attempt to force sales.

PINE.

Table listing Albany market prices for pine, categorized by board type and measurement.

LATH.

Table listing Albany market prices for lath, categorized by measurement and quality.

SHINGLES.

Table listing Albany market prices for shingles, categorized by type and quality.

SAGINAW, MICH.

SAGINAW, Mich., July 31.—The situation is a wonderful change from that of the opening of the season. Then buyers were full of anxiety to buy, and sellers

could not meet their wants quickly enough. Now stolid indifference is the rule. No one seems anxious to buy.

FINISHING LUMBER—ROUGH.	
Uppers, 1, 1 1/4 and 1 1/2.....	45 00
2 in.....	46 00
Selects, 1 in.....	40 00
1 1/4 and 1 1/2.....	41 00
2 in.....	41 00
SIDING.	
Clear, 1/2 in.....	24 00
3/4 in.....	48 00
Select, 1/2 in.....	21 00
3/4 in.....	40 00
TIMBER, JOIST AND SCANTLING.	
2x4 to 10x10, 12, 14 and 16 ft.....	13 00
18 ft.....	13 00
For each additional 2 ft. add \$1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.	
SHINGLES.	
XXX 18 in. Climax.....	3 65
XXX Saginaw.....	3 40
XX Climax.....	2 25
18 in. 4 in. c. b.....	1 25
LATH.	
Lath, No 1, white pine.....	2 35
Lath, No. 2, W. pine, Norway	1 65

NEW YORK CITY.

NEW YORK, July 31.—No one is running after business. The wholesaler is careful to whom he sells, and buyers are just as careful in buying. Such is the influence of the financial stringency upon the lumber markets here.

WHITE PINE—WESTERN GRADES.	
Uppers, 1 in.....	\$44 00@45 00
1 1/4, 1 1/2 and 2 in.....	46 00 47 00
3 and 4 in.....	55 00 58 00
Selects, 1 in.....	40 00 41 00
1 in., all wide.....	41 00 43 00
1 1/4, 1 1/2 and 2 in.....	43 00 44 00
3 and 4 in.....	52 00 53 00
Fine common, 1 in.....	36 00 37 00
1 1/4, 1 1/2 and 2 in.....	38 00 40 00
3 and 4 in.....	46 00 48 00
Cutting up, 1 in. No. 1	28 00 30 00
No. 2.....	21 00 23 00
Thick, No. 1.....	29 00 32 00
No. 2.....	24 00 26 00
Common, No. 1, 10	
and 12 in.....	22 00 23 00
No. 2.....	20 00 21 00
No. 3.....	17 00 18 00
Coffin boards.....	20 00 22 00
Box, in.....	\$17 00@17 50
Thicker.....	17 50 18 50
Ceil'g, base, fig. No. 1	40 00 42 00
No. 2.....	35 00 37 00
No. 3.....	24 00 26 00
Shelving, No. 1.....	30 00 32 00
No. 2.....	25 00 27 00
Molding, No. 1.....	36 00 37 00
No. 2.....	34 00 36 00
Bevel sid'g, clear.....	22 50 23 00
No. 1.....	22 00 22 50
No. 2.....	20 00 20 50
No. 3.....	16 00 17 00
Norway, c'l, and No. 1	23 00 25 00
No. 2.....	20 00 22 00
Common.....	18 00 19 00

EXPORTS.

UNITED STATES Consul General J. B. Riley, has recently completed a statement of the exports from the Ottawa district to the United States for the fiscal year ending June 30. The report shows the lumber exports during that period to be as follows: Bark, \$23,320; curtain sticks, \$3,590.08; lath, \$43,914; lumber, \$1,990,419; lumber in bond for export, \$174,440; match blocks, \$168; pickets, \$8,910; poles and ties, \$2,041; pulp wood, \$4,702; railroad ties, \$13,685; shingles, \$12,590; wood, \$4,971; wood pulp, \$123,664.

BELT INJURIES.

SO many people are injured or killed while "fixing a belt," that one is led to ask whether it is the fault of the injured man or the mill owner in not providing suitable appliances for "fixing belts"—by which is meant, usually, throwing them on pulleys. Belts do not often hurt anybody while being laced, or while at rest; running belts do, of course, but probably more men are hurt in the act of starting or shifting belts than in any other acts connected with them. It is but slight comfort to tell the maimed man, or the family of the dead man, that it was his own carelessness. More than likely it was, for without carelessness there would be but few belt accidents. It is the duty of every mill owner, every foreman, and every workman, to persistently point out the dangers attending carelessness in handling running belts. The owner's carelessness may cost him a large sum in damages awarded by court, but the workman's carelessness inflicts a different penalty.

NOISE FROM A GAS ENGINE.

AMONG the various engineering investigations which for some time have been engaged the attention of mechanical experts is that having in view some ready method for deadening the objectionable noise made by the puffs from the exhaust pipe of the gas engine, but only an indifferent amount of success has hitherto attended these efforts. The most recent contrivance of the kind is a device described in a French journal, and claimed to be simple, efficient and inexpensive. Briefly, a pipe split for a distance of about two metres is attached to the end of the exhaust, with the split end upward, and, beginning at the lower end of the cut, which may best be made by a saw, dividing the pipe into two halves, the slotted opening is widened out toward the

top until it has a width equal in extent to the diameter of the pipe. Under this arrangement the puff of the exhaust spreads out like a fan, and the discharge into the open air takes place gradually, the effect produced depending somewhat on the flare of the tube.

COUNTERSHAFTS.

A WRITER in the Mechanical News says that, though independent countershafts are sometimes necessary, they are usually a nuisance, and with proper calculation can be dispensed with. He further says: "I say independent countershafts to distinguish them from those that belong to the machines, which are attached to the frame, and are really an indispensable part of the machine itself. In some instances it would seem as though the main shaft were put up without reference to the machinery that is to be driven from it, and it is often the case that the speed is such that it is impossible to use a pulley large enough to give the machine the requisite speed, and the result is that an intermediate countershaft becomes necessary. It is not only the first cost of the extra countershaft, pulleys and belts in the first instance that constitutes the principal objection, but the extra care required in keeping it in running order, besides the extra power consumed in running it. Where the several machines that are to constitute the outfit of a mill are known, it is an easy matter to calculate the speed of the line shaft, so that suitable-sized pulleys may be used so as to belt each machine directly from the line shaft."

FROM THE LUMBERMAN'S STANDPOINT.

MUCH that is very sensible, and greatly needed, has been written on the subject of forestry. It is likewise true that in a good deal that is written there has been a tendency to get away from the sensible and become lost in the labyrinth of the sentimental. At the forestry congress of the World's Fair, a few weeks ago Editor Defebaugh, of the Timberman, read an instructive and comprehensive paper entitled, "Forest Culture from the Lumberman's Standpoint."

Mr. Defebaugh said the lumberman has just as acute a perception of the needs of posterity as anyone living. He who lives by converting timber into a commercial product is no less a man than he who for a salary, delivers lectures on climatology or botany. He deplores the blackened wastes which follow the operations of his logging crews as heartily as anyone. He is heartily in accord with all movements looking toward the welfare of coming generations as anyone can be who owes nothing to past generations but has to make his living in this. Talk to him as a citizen or a philanthropist and you at once gain cordial attention and arouse his interest, in a way which, as far as the exigencies of his business will permit, will be reflected by his actions, but as a lumberman he is face to face with the hard actualities of life. The present is an overpowering fact, while the future has but a shadowy influence.

The stress of competition forces the lumberman to cut his land clean as he goes. Everything which will pay for transportation and manufacture must go through his mill. The timber owner is threatened not only with the danger of fire, but other perils which are entirely natural and exist in any primeval forest. He, therefore, in a majority of cases cannot, if he would, conserve his possessions, but must transfer his forest holdings as rapidly as possible into commercial products, which in turn can be transformed into gold or bonds.

The principal portion of Mr. Defebaugh's paper was devoted to the question of governmental control of forests, showing how the lumbermen would and should desire such control.

"But to accomplish what you wish," he said, "and what we all in our hearts desire, you must have all the assistance possible. Do not, therefore, professors, lecturers and students of the scientific phases of forestry, alienate, by too fervent manifestations of your devotion to your cause, the support of the lumbermen who are dealing every day with that phase of the forestry question which to you, for the most part, has been a sealed book. The lumberman who is generous and public spirited in public matters will aid you in all practical work."

STEAM PUMPS



Duplex AND SINGLE Steam AND POWER Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US



NORTHHEY

M'FG CO.

LIMITED

TORONTO - ONT.

TIMBER 1,000 YEARS OLD.

EXPERTS seem to be divided as to which of the two hardwoods—jarrah or karri—of Western Australia is the most durable. A scientific journal says that jarrah wood piles two feet two inches square, driven 33 years ago at the Large Bay pier, were found, on examination, to be as sound as the day they were put in. Some specimens of karri wood taken from a fence were recently sent to London, and, though the wood has been underground for 25 years, it was perfectly sound. A specimen of jarrah wood under similar circumstances showed serious decay.

Timber of tamarisk wood has been found perfectly sound in the ancient temples of Egypt in connection with the stone work, which is known to be at least 4,000 years old. In some tests made with small squares of various woods buried one inch in the ground, the following result has been obtained: Birch and aspen decayed in three years; willow and horse-chestnut in four years; maple and red beech in five years; elm, ash, hornbeam, Lombardy poplar in seven years; oak, Scotch fir, Weymouth pine and silver fir decayed to the depth of half an inch in seven years, larch juniper and arbor vitæ were uninjured at the expiration of the seven years.

The redwood of California has the quality of being nearly fireproof. The root of the brier is the only wood which does not burn when exposed to the fire. Cocus-wood is the hardest known wood; oak is the strongest. The heaviest British wood is that of the box-tree, which sinks in water. Hornbeam is the strongest and toughest wood for mechanical use. The strongest American wood is the nutmeg hickory; the most elastic, the Tamar oak; the heaviest, the blue wood of Texas.

In situations so free from moisture that we may practically call them dry the durability of timber is almost unlimited. The roof of Westminster Hall is more than 450 years old. In Stirling Castle are carvings of oak, well preserved, over 300 years of age. Scotch fir has been found in good condition after a known use of 300 years, and the trusses of the roof of the basilica of St. Paul's, Rome, were sound and good after 1,000 years' service.

Wood constantly wet in fresh water is equally as durable. Piles were dug from the foundations of the old Savoy palace in a perfectly sound state after having been down 650 years. The piles of old London bridge were found sound and perfect 800 years after they were driven.

A BIG BARREL.

THE biggest barrel in the world, made of staves of wood, is at Heidelberg, undoubtedly, but in Arizona there is a larger barrel carved by Nature and from solid stone. It is a peculiar rock formation, about 200 feet high, and the top of it is at least 2,000 feet above the valley. It can be seen for miles before the traveller gets to it, and its appearance is most deceiving. A large fissure on the side forms a bunghole. It does not look like a barrel unless seen from the plain; on all other sides it is simply a rugged rock. It is a soft granite formation of volcanic origin, and is crumbling to pieces. But it has had its present form for centuries.

FIVE THOUSAND SHINGLES AN HOUR.

AN attraction for lumbermen at the coming Toronto Industrial Exhibition will be the exhibit of shingle machinery to be made by F. J. Drake, of Belleville, Ont. Lumbermen say it is hard to beat the Drake shingle machines, and Mr. Drake is going to put the question to test by running his machines daily and will undertake to cut not less than 5,000 shingles in a given hour. A gang of men will be on the grounds throughout exhibition week for the purpose of showing these machines in operation.

HOW TO OBTAIN DRY STEAM.

WHEN putting up a steam pipe between boiler and engine, says the Stationary Engineer, it should be made to slope slightly toward the engine, so that all the water and condensed steam will be carried forward, as it cannot be made to run back against the flow of steam; for water once in the pipe must flow forward, and if no outlet is provided it must travel through the cylinder of the engine. The water can be kept from the engine by putting a separator or water catcher in the horizontal pipe near the last end before it reaches the engine. A small pipe will lead from this back to the boiler, trapping the water before it reaches the cylinder.

By the use of this simple arrangement, the steam supplied to the cylinder will be much dryer and give better results in doing the work; it will also remove the injury to the engine on account of entrained water. The pipe leading back to the boiler need not be larger than $\frac{3}{4}$ or 1 inch for engines of 100-horse power or less. If a water glass forms a portion of the return pipe it will show that a surprising amount of water is returned from the steam pipe to the boiler, the water would otherwise have gone through the cylinder, requiring a greater amount of lubrication, assisting or causing leaks, and presenting a possibility of great danger to the engine. In boiler tests, the steam which is condensed in the pipe and the water carried off by priming, is often credited to the coal, when a large portion of it is due to priming effects.

The condensation of steam in the steam pipe is much greater than is generally supposed, and is always so much that great economy in fuel would be obtained if the pipes were covered with some good non-conducting substance. The different forms of separators employed in steam pipes serve an excellent purpose in providing dry steam only to the engine, but if the steam pipes were well covered, the work required of the separator would be reduced, in many cases, much more than one-half.

HOW CIRCULAR SAWS ARE MADE.

THESE saws are now made of cast steel specially manufactured for the purpose. An ingot heated to the requisite temperature is reduced to the proper thickness in powerful rolls. The plate is then centered and a circle inscribed upon it, after which it is passed to the shearer, who reduces it to a circular form. The centre hole, says Work, is then bored. It is then handed to the toother, who punches out the teeth round the edge, after which they are rough filed, or ground on an emery wheel, to take off the burr left by punching.

The rough saw is now again heated in a large furnace until it is of a bright red color. It is then plunged in a bath of sperm oil, which makes it hard and brittle. The oil is then partly cleaned off, and the rest burnt off in the furnace to give the saw the required temper. When cold the saw is hammered on a steel-faced anvil until it is straight.

It is next ground between vertical grindstones revolving in opposite directions, and then polished with emery on a large revolving disc. Once more the hammer-men take it, and strike it with smooth-faced hammers on an anvil, as before, until it is absolutely straight and true and has acquired the proper tension which allows for expansion while the saw is revolving at work. The teeth are now set, alternately right and left, to allow for clearance when sawing timber. They are then sharpened by being filed on the fronts and tops of the teeth, which operation completes the manufacture.

WHAT GIVES OUT.

THE arms of pulleys as they are usually constructed have but little to do with the centrifugal strain upon the rim, and, so far as observation may go, it is quite evident that when a pulley is thus broken the rim is the part that first gives, and but few cases have come under observation where it was otherwise.

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, Lumberman, Hepworth station, Ont.

WANTED—A SITUATION AS FILER IN A sawmill. Have had nine years' experience with gang and round saws. Address "H," 3 Maitland St., Halifax, N.S.

WANTED—BY YOUNG MAN—SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care CANADA LUMBERMAN, Toronto.

WANTED

BASSWOOD LUMBER, BY CAR OR CARGO. Offers invited. Address "Baswood," care of CANADA LUMBERMAN.

COMMISSIONS

THE ADVERTISER CAN SECURE BIG prices for black ash, basswood, elm and maple in New York and surrounding markets, best of references given. Send lists of stock on hand. No shipment on consignment. Bona fide orders sent you before shipment. Address "Commissions," care of CANADA LUMBERMAN.

SAWYER WANTED.

ONE used to cutting Dimension Timber. Must be used to Automatic Saw Sharpener. Mill runs summer and winter.

Apply with references to

SHEARER & BROWN,
Montreal, Que.

BRITISH COLUMBIA

STEAM, SAW AND PLANING MILL FOR sale at a bargain. Inland country business. Capacity ten thousand feet per day. Machinery all in good order and new in 1889, by Goldie & McCulloch and McGregor & Gourlay, Galt. The whole, including 4 acres, mill, dwelling and boarding houses, smith shop, and over \$2,000 worth of stock, tools, etc., for sale for \$8,000, being far less than value. For particulars apply to

A. J. BORILL,
Langley Prairie, B.C.

LUMBERMEN

EXPERIENCED SHIPPER OPEN FOR ENGAGEMENT Good bookkeeper and correspondent. Competent to take charge of mill. References furnished. Address "Inspector," care CANADA LUMBERMAN, Toronto.

RAILS FOR TRAMWAYS

NEW AND SECOND-HAND STEEL AND iron rails for tramways and logging lines, from 12 lbs. per yard and upwards; estimates given for complete outfit.

JOHN J. GARTSHORE,
49 Front St. West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with I.C.L., care CANADA LUMBERMAN, Toronto.

FOR SALE

A HANDLE LATHE FOR MAKING FORK and rake handles. Inch squares are cut out of slabs, piled one on top of the other in the machine, and it automatically takes the lowest, runs it between the knives and produces the handle without any more attention. Contracts can be secured for all the handles that can be produced with the machine.

WATEROUS, BRANTFORD, CAN.

FOR SALE

A STEAM CIRCULAR SAWMILL

WITH DOUBLE EDGER AND BUTTING saw, capacity 15 to 20 M feet per day; 40 horse power boiler and engine, lumher and wood cars, steel rails on lumber track, horses, wagons, harness, sleighs, blankets, boom chains, driving plant; blacksmith's anvil, forge, bellows, vice, with all necessary tools for repairs. Everything in good order and as good as new. Also 100 acres of good land, with dwelling and boarding house, office, stables, sheds, etc. This property is situated on a good navigable stream, with an almost unlimited supply of black ash, basswood, soft elm, red birch, maple, hemlock, pine, etc., and is a rare chance, there being no opposition in buying stock, present stock being cut now. For full particulars apply to M. C. H.,

CANADA LUMBERMAN,
Toronto, Ont.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

P.O. Box 2144,
NEW YORK.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A- quarter and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, I. and II., all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long. Address all particulars as to dryness, quality, quantity on hand and price, to P.O. Box 2144, New York, N.Y.

AUCTION SALE

— OF —

CANADA

PINE TIMBER LIMITS

IN ORDER TO WIND UP THE AFFAIRS OF "The Georgian Bay Consolidated Lumber Company," the following Timber Berths will be sold by public auction in the City of Toronto, during the early part of August next.

Berths Nos. 44, 45, 60 and 61, each containing 36 square miles, more or less, tributary to the Wahnapiatae River.

Berths (south halves of 41 and 49), each containing 18 square miles, more or less, situated on Lake Wahnapiatae.

These Limits are in the District of Nipissing, on the North Shore of the Georgian Bay. The waters of Lake and River Wahnapiatae empty south into the French River, thence into the Georgian Bay. The licenses give the right to cut all kinds of timber. The ground rent is \$3.00 per square mile, and the Crown dues are \$1.00 per thousand feet b. m. for pine saw logs.

Notice will be given later on of the time of sale, and the terms and conditions will be made known on the day of sale.

THE GEORGIAN BAY CONSOLIDATED LUMBER CO.,

24 King Street West,
Toronto, April 2nd, 1893. Toronto, Canada.

CANADA

(PROVINCE OF NEW BRUNSWICK)

SALE OF TIMBER LICENSES

Covering a large portion of the Crown Lands of the Province.

THE RIGHT OF LICENSE TO CUT AND carry away all classes of timber or lumber from the principal timber lands of New Brunswick, will be offered for sale at the Crown Land Office, Fredericton, N.B., on

Tuesday, August 29th, 1893

and following days.

The timber licenses to be sold will cover an area of about 4,400 square miles (or 2,800,000 acres) of Crown Lands.

These Licenses will be for one year, with the right of renewal for a term of 25 years from the 1st day of August, 1893, on fulfilment of all conditions of License.

Licenses will be offered at an upset price of \$8.00 per square mile, and conditions being complied with, may be renewed from year to year during the term, on payment of \$4.00 per square mile; this mileage being in addition to stumpage dues.

The stumpage payable on lumber to be cut has been fixed for the present at the following rates:

	per M.	sup. ft.
On Spruce, Pine and Hardwood Saw		\$1.00
Logs		.80
Cedar Logs		.80
Hemlocks		.40
Other lumber as per regulations.		

Copies of the regulations to govern this sale, and any further information required, may be had on application to

L. J. TWEEDIE,
Surveyor General,
or

W. P. FLEWELLING,
Lumber Agent.
Crown Land Office,
Fredericton, New Brunswick,
14th July, 1893.

FOR SALE

50,000 Acres well-selected Timber Limits

IN COAST DISTRICT OF BRITISH COLUMBIA, close to tide water, together with a complete Saw Mill Plant. This valuable property can be bought at a bargain and on easy terms.

For information apply to or correspond with
H. H. SPICER, Vancouver, B.C.

3½ Cents a day—

That isn't much money, is it?

About twenty-five cents a week or so.

And a man must be pretty hard up if he hasn't that much to spend every week.

Times are hard, they say; but if they are hard now to your family and yourself, what will they be to your family without you?

That's worth thinking about.

We think that no man should be without life insurance when it can be had at such a low rate as 3½ cents a day from the Manufacturers' Life, Yonge Street, corner Colborne, Toronto.

Write to us and we will give you all particulars.

DONOGH & OLIVER

WHOLESALE DEALERS IN LUMBER

OFFICE
Nos. 213, 214 and 215
Board of Trade Building
Toronto, Ont.

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail.	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail.	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Steam, Circular, 16m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail.	Stm., Band, Cir., S. 75m, Sh. 60m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail.	
Waukegan, Ont.	Waukegan	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Pine only.	Waukegan mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail.	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glammis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol. Cherry, White Ash, Hardwoods, Wholesale	Steam, Band and Circular, 100m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 40m
Norman, Ont.	Norman	Cameron & Kennedy	Lumber, Wholesale and Retail	
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m.
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Lumber, Wholesale	
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Com., Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Toronto	Toronto	DeLapante & Bowden	Pine and Hardwood Lumber, Whol. and Retail.	
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin. Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin. Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	JAMES MORRISON & SON	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

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The Montreal Car Wheel Co.

.... MANUFACTURERS OF

Charcoal Iron Gilled RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

CORRESPONDENCE SOLICITED

OAK TANNED BELTING

TORONTO
20 FRONT ST EAST
TELEPHONE 475

THE J.C.M^cLAREN BELTING CO MONTREAL

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-HAND Boilers, Engines and General Machinery for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.

ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.

THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.

ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.

TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.

ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S MAKE.

TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.

ONE 6 1/2 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.

TWO 5 1/2 x 9 SLIDE-VALVE ENGINES, BECKETT'S MAKE.

ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.

ONE 15 H.P. ENGINE, English make.

ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.

ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:—

ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.

TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.

ONE GOLDIE & McCULLOCH THREE-SIDE moulder.

ONE ONE-SIDE MOULDER.

TWO 34-INCH WHEELS BAND SAWING machines.

ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.

ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.

ONE GOOD SHAPER.

SIX GOOD SAW TABLES.

ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.

ONE WOOD FRAME TENONER IN GOOD shape.

TWO UPRIGHT SWING SHINGLE OR heading machines, with jointers.

ONE ALMOST NEW GENUINE "BAILEY" gauge or handle lathe, with countershaft.

ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.

FOUR DOWELL MACHINES.

ONE 20-INCH WATEROUS CHOPPER complete with double elevators, equal to new.

FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

SECOND-HAND MACHINERY FOR SALE

One right hand 12 x 14 straight line engine, our make run a very short time.

One pair of engines, right and left, 16 x 20, can be used separately or together, with two large pulleys and fly wheel and connecting shaft.

Three boilers 48 x 14 with large domes, full fronts all fittings, fixtures and stack.

One 60 x 13 ft. 6 in. steel boiler, with 64 3/4 in. x 13 ft. 6 in. tubes, boiler made of 6 sheets double rivetted on side seams, furnished complete with all fittings, fixtures and stack, boiler and fixtures are in perfect order having been run but three months.

One 56 x 14 boiler, comparatively new, has been in use less than a year.

One right hand iron saw frame, with mandrel, pulley, boxes, three 54 in. saws, 56 to 100 teeth in each, and one 64 in. saw, suitable for steam or independent friction feed.

One 3-block heavy saw carriage, Sewry's make, with boss dogs, V and flat track, frame and carriage are in good order, have averaged 35,000 to 40,000 ft. per day, only discarded to put in a band mill and carriage suitable for same.

One left hand 3-block light medium sized saw carriage with V and flat track.

Several portable engines from 12 to 20 horse power.

WATEROUS, BRANTFORD, CANADA

J. D. SHIER

MANUFACTURER OF

Lumber, Lath & Shingles

BRACEBRIDGE, ONT.

THE NORTH SHORE NAVIGATION CO.

Royal Mail Line of Steamers

CITY OF MIDLAND CITY OF LONDON

... FAVORITE ... MANITOU ...

Running in connection with the G.T.R. and C.P.R., will sail during the season of 1893 as follows:

THE CITY OF MIDLAND AND THE CITY OF LONDON will leave Collingwood at 1.30 p.m. every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same day at 10.30 p.m., after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and stopping at all intermediate ports to Sault Ste. Marie. Returning leave the Soo at daylight, making railway connections at Wiarton, Owen Sound and Collingwood.

The FAVORITE will leave Collingwood Monday and Thursday, at 1.30 p.m. for Parry Sound, Byng Inlet, French River and Killarney, connecting there with line steamers for Sault Ste. Marie. Returning stop at French River, Byng Inlet and Midland, making connection there with steamer MANITOU for Parry Sound and G.T.R. for south and east, and at Collingwood with G.T.R. for Toronto and Hamilton.

Commencing Thursday, May 4th

The MANITOU will make regular trips from Penetanguishene, connecting with trains from the south only at Midland, every Monday, Wednesday, Thursday and Saturday on arrival of G.T.R. from all points south and east for Parry Sound, making connection there with the steamer FAVORITE for Byng Inlet, French River and Killarney, where the latter connects with the line steamers for the Soo.

For tickets and further information see folders, or apply to all agents of the G.T.R. and C.P.R., or to C. E. STEPHENS, M. BURTON, Sec.-Treas., Collingwood, Mgr. Collingwood.

WEBSTER'S INTERNATIONAL DICTIONARY. Entirely New. Ahead of the Times. A Grand Educator. The successor of the "Unabridged." Ten years were spent revising, 100 editors employed, and over \$300,000 expended. Everybody should own this Dictionary. It answers all questions concerning the history, spelling, pronunciation, and meaning of words. A Library in Itself. It also gives the facts often wanted concerning eminent persons, ancient and modern; noted fictitious persons and places; the countries, cities, towns, and natural features of the globe; translation of foreign quotations, words, phrases, and proverbs; etc., etc., etc. This Work is Invaluable in the household, and to the teacher, scholar, professional man, and self-educator. The Globe, Toronto, says:— This new dictionary is the best book of its kind in the English language. For every family, the members of which have mastered the art of reading, its purchase will prove a profitable investment. The Times, Hamilton, says:— It may well be pronounced the best working dictionary and the cheapest book in the world, and should be in every school and family in Canada. Have your Bookseller show it to you. G. & C. Merriam Co. Publishers, Springfield, Mass., U.S.A. Do not buy cheap photographic reprints of ancient editions. Send for free prospectus containing specimen pages, illustrations, etc.

35 CENTS BUYS FISHER'S GRAIN TABLES

The book contains more valuable information and useful tables for Farmers, Millers, Traders and others than any similar book of its kind ever published, besides being a complete Ready Reckoner showing the value of articles or lbs. from one to 500; from a quarter of a cent to \$2.00. Also tables for Grain, Hay, Rent, Board, Wages, Interest, etc. Write for sample copy.

THE CANADIAN MILLER, Toronto, Ont.

CANADIAN LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF THE LUMBERMAN'S DIRECTORY AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA: 1893 Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank:

Power, style and capacity of mill:..... Class of manufacture:..... Post Office:..... Shipping Point:.....

Dealers in lumber, shingles, lath, etc., will please fill in following blank:

Wholesale or Retail:..... Class of stock handled:..... Post Office:..... Shipping Point:.....

Owners of planing mills, sash, door and blind factories, will please fill in following blank:

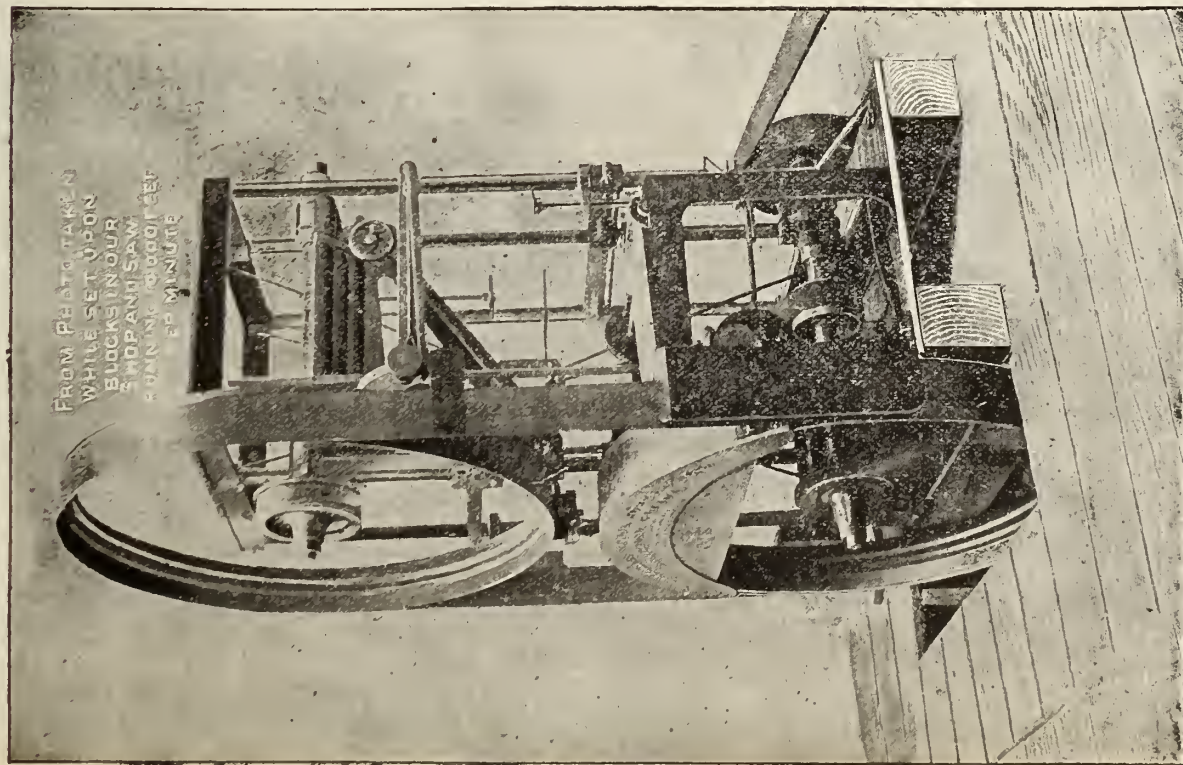
Power and style:..... Class of manufacture:..... Post Office:..... Shipping Point:..... (Signed)..... P.O. Province.....

Address all communications to DIRECTORY DEPARTMENT, CANADA LUMBERMAN, TORONTO, ONT.

The Waterous No. 2 Band Saw Mill

"NONE SURPASS THE WATEROUS"

It has More Special Features
to Commend it than Any Other Band



FROM PHOTO TAKEN
WHILE SET UP ON
BLOCKS IN OUR
SHOP AND SAW
DURING 10000000
PER MINUTE

GREAT STIFFNESS - -

From its breadth of frame

PERFECT STEADINESS -

Under the greatest speed

TENSION - - - -

The most sensitive

STRAIN ON SAWS - -

Reduced 25% to 50%

SHORTEST SAWS - -

By 3 to 15 feet

FOOT SPEED OF SAWS

The highest attainable

OFF-SET TO CARRIAGE

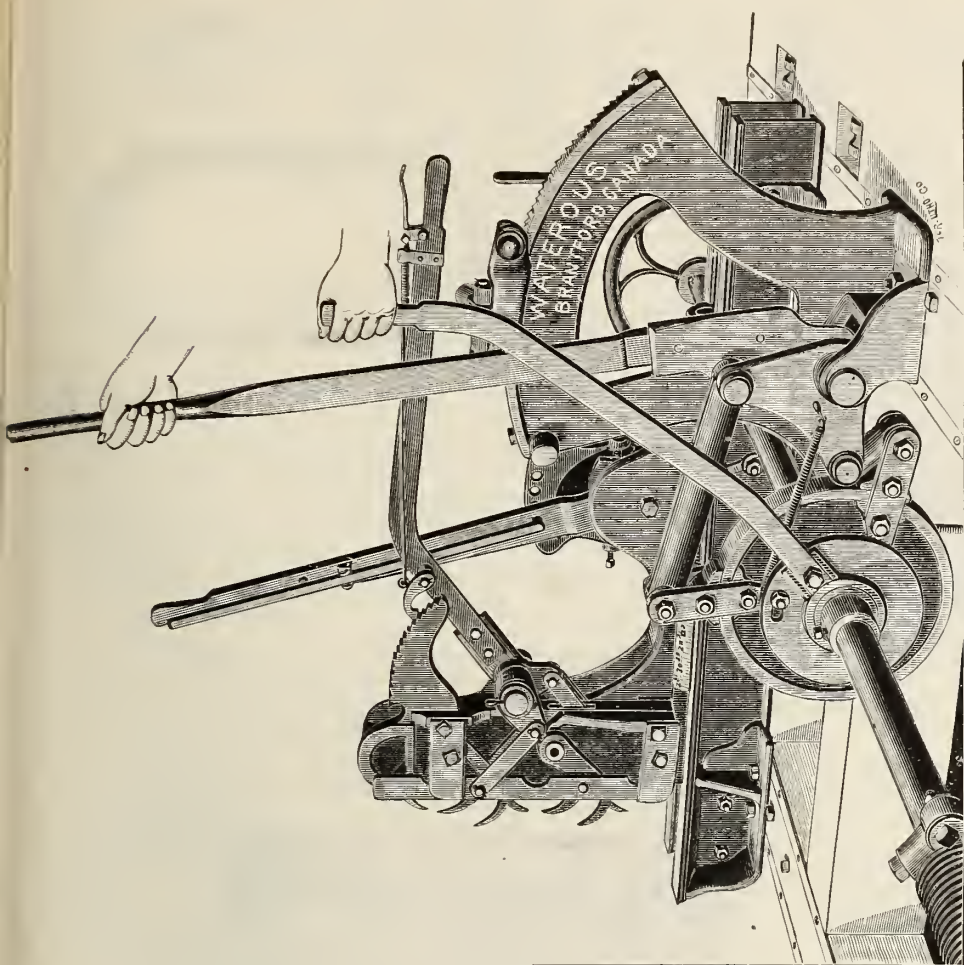
The most simple, applicable to
almost any carriage

BAND SAW TOOLS - -

The best and latest improved,
the largest line

BAND SAW EXPERT -

One of the best, at the ser-
vice of our customers, to put
saws right and teach your saw-
yer how to handle the saws



3, 4, 5 and 6 Saw Gang Edgers

Prescott and Oscillating Engine Steam Feed

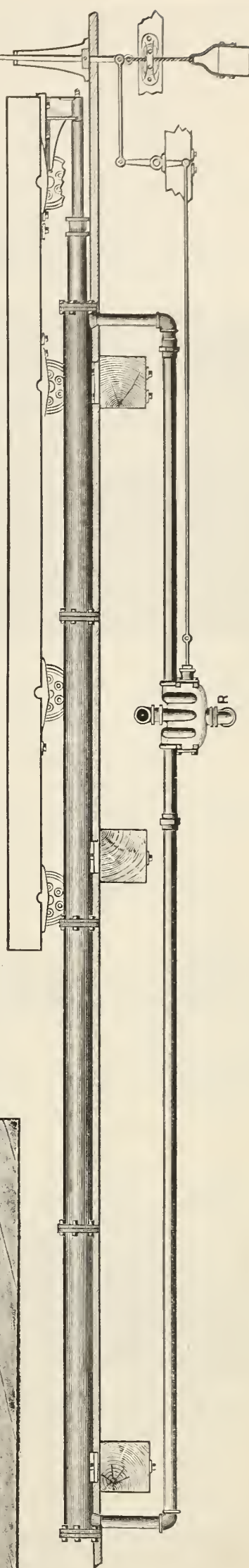
Friction Feed for Water Mills

Endless Chain Log Jacks, with wrought

iron and malleable chain

Ewart Link Belting

LARGE STOCK OF ALL SIZES



ORDER NOW. We can supply Band Mill promptly

Waterous, Brantford, Canada

REGISTERED STAR BRAND PORTLAND CEMENT

Our own manufacture and unexcelled.

Its use is authorized by Province of Ontario and Toronto City Engineers.

Quality GUARANTEED, and always the same.

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'BUILD TO-DAY THEN, STRONG AND SURE, WITH A FIRM AND AMPLE BASE.' - Longfellow. DO YOU? WISH THUS TO BUILD. an advertisement in the CONTRACT-RECORD, TORONTO will bring you tenders from the best contractors.

WHY BAND SAWS BREAK

SIXTEEN REASONS, AND HOW TO AVOID THEM



Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

A book filled with valuable information on the care of band saws. Giving the reasons for breaking; analyzing each reason; giving instructions to dispense with the causes as laid down in each reason; and full details on filing and brazing.

The book is printed on fine paper, good clear type, and is handsomely and substantially bound in cloth. It will be sent to any address on receipt of the price, ONE DOLLAR.

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ROBIN & SADLER MANUFACTURERS OF Leather Belting SPECIALTIES DYNAMO BELTS WATERPROOF BELTING MONTREAL TORONTO 2518 & 2520 NOTRE DAME ST 129 BAY ST.

Send for sample of our new SAWMILL BELT

... Architectural Terra Cotta ...

Made to detail for construction or Fireproofing; Ornamental in Red, Buff or Brown.

Large stock on hand of Strings, Panels, Caps, Bases, Tiles, Crestings and Finials.

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USE SPOONERS BOX-METAL COPPERINE FOR SAW MILLS AND CIRCULAR SAWS. PLANNING MILLS AND HEAVY SOLID WORK. OLD MACHINERY GOOD AS NEW. ALL SELL IT. PERFECTION IN THIS WORLD. PATENTED.

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Do You Lack Steam? We Can Help You THE CANADIAN HOLLOW BLAST GRATE

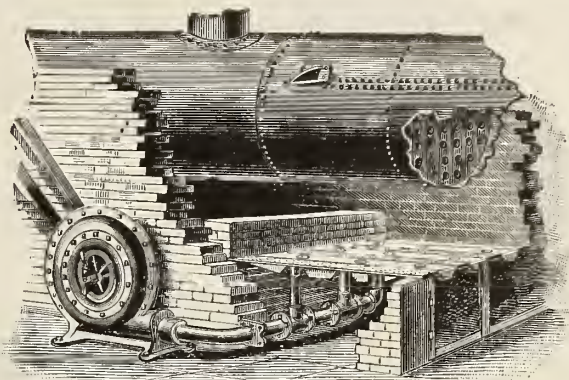
The Hollow Blast Grate supplies the furnace fire with a blast of hot air sufficient at all times to insure the rapid and perfect combustion of fuel of every sort.

It is the only appliance that steams successfully with green or wet sawdust, tanbark or other refuse and waste.

It alone has solved the problem of steaming with the fine, compact dust of the band mill.

THEY WILL NOT BURN OUT LIKE OTHER GRATES. NO SAW MILL CAN AFFORD TO BE WITHOUT. THEY WILL SAVE THEIR PRICE IN THREE MONTHS.

REGARDLESS OF THE CHARACTER OF YOUR FUEL, WE CAN GREATLY INCREASE THE VOLUME OF STEAM GENERATED IN YOUR BOILERS.



Furnace Fitted with Hollow Blast Grates and Apparatus.

HUNDREDS OF TESTIMONIALS LIKE THE FOLLOWING:

"After having used your blast grates for one year we have much pleasure in saying that in our opinion they are THE INVENTION OF THE AGE. We would not be without them under any consideration."—STEINHOFF & GORDON, WALLACEBURG, ONT.

"They are a complete success, doing more than you claimed for them. We now keep a full supply of steam using nothing but green elm sawdust, doing better than we could with dry wood using the ordinary grate bars."—C. W. THOMAS, GORDON, ONT.

"They give us full satisfaction in every respect. We now turn out one third more stuff per day than formerly. They exceeded our expectations."—MCMACKON & COATES, TILBURY CENTRE, ONT.

"The blast grates started all right and give good satisfaction. We can burn most of the saw-dust and keep up steam now. I would not be without them for double the price." JOHN G. ROCK, BRODHAGEN, ONT.

"I do not consider a saw mill complete without Blast Grates."—AARON GORDON, DRESDEN, ONT.

"I put in a set of your Grates a year ago, and they pleased me beyond expectation. I spent hundreds of dollars in various contrivances to burn elm sawdust, but without success. I now burn all my dust. I can keep up better steam pressure than I could before with dry wood."—C. E. NAYLOR, ESSEX, ONT.

IT COSTS YOU NOTHING TO TRY THEM

WE GUARANTEE SATISFACTION OR NO SALE

FOR INFORMATION, PRICES OR ESTIMATES, ADDRESS

THE CANADIAN HOLLOW BLAST GRATE CO., ESSEX, ONT.

A. ALLAN, President

J. O. GRAVEL, Secretary-Treasurer

J. J. MCGILL, Manager

F. SCHOLES, Managing Director

Canadian Rubber Company

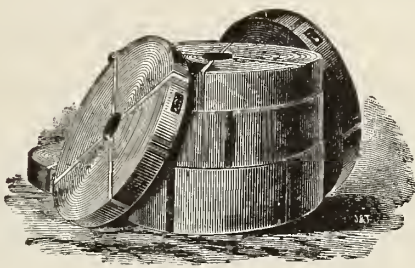
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SUPERIOR QUALITY
RUBBER GOODS
for Mechanical Purposes
RUBBER BELTING, PACKING, HOSE



FORSYTH
Seamless Rubber Belting
Seamless Tube Hose

These Patents we control for Canada

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Western Branch: CORNER YONGE AND FRONT STREETS

TORONTO

J. H. WALKER, - - Manager



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FLINT & PERE MARQUETTE
RAILROAD

FROM
Port Huron and Detroit

Is the Short Line to
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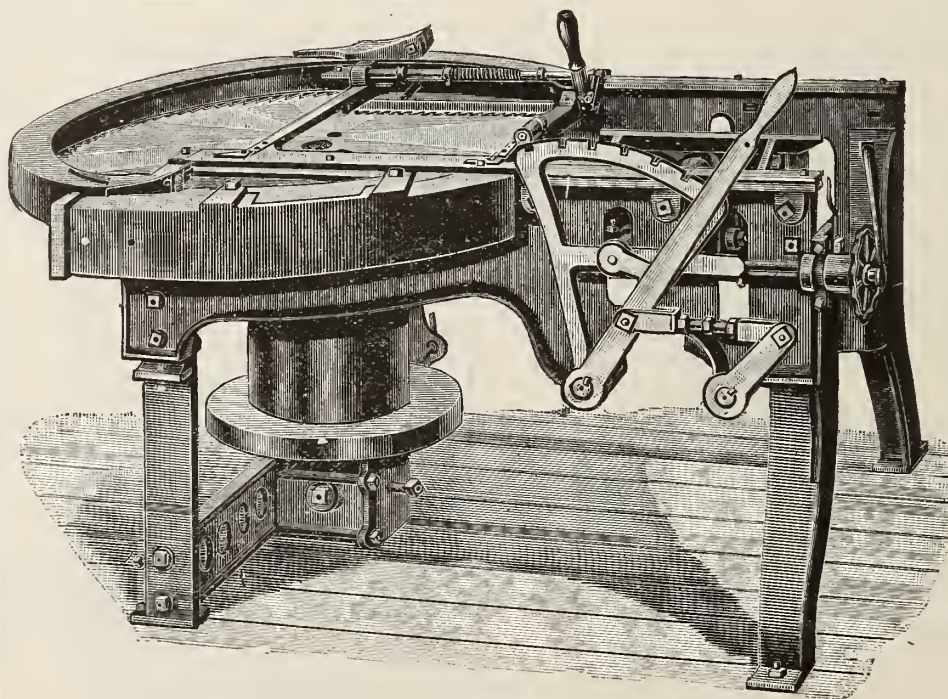
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All our other machinery purchased from you is as good as the shingle machine. Your drag saw, with friction drive, cannot be beaten. We run ours 180 strokes per minute; with 6½ ft. saw it would easily make blocks for two shingle machines. The splitter, with balance wheel 4 feet diameter, weighing 1,000 lbs., is perfect and runs without the least jar. The iron frame shingle jointer with 40-inch saw is the only good jointer we ever saw. In fact, all your machinery, line shaft, pulleys, etc., give us the best satisfaction.

We expect to require another mill in a few days, and, if we do, will send you the order for complete outfit.

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P.S.—If any one wants to see a good working shingle mill send them to me.—M. D.

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A FEW SUGGESTIONS

..... REGARDING THE SUCCESSFUL

Drying of Lumber, Shingles, Heading, etc.

IT is a difficult matter to set forth in a brief communication the reasons why some kilns are faultless and others worthless. Arguments may be convincing to those who have had experience, and yet bear no weight with those who have not. It is a fact accepted by all, however, that lumber can be dried without injury if the passage of the interior moisture to the surface precedes or keeps pace with surface evaporation. If the operation is uniform and extends to all parts of the material, uniform results will be obtained without warping, twisting or injury. Restrict the application of heat to one side or one edge of a board, for instance, and it will be unevenly dried and left in a warped, crooked and strained condition. Hasten the surface evaporation without expediting the escape of interior moisture proportionately, and the exterior will contract more rapidly than the interior, and checking and injury will result. Heat will drive the interior moisture to the surface, but too much heat or too little or an uneven application of it, is disastrous. If evaporation is properly controlled, most lumber one inch or less in thickness will stand a temperature of 100 deg. at the start and an increase of 1 deg. per hour until evaporation is completed. Time is saved by applying as much heat as lumber will stand. We pipe our kilns the entire length, graduating the heating surface so as to increase the temperature 1 deg. to the foot, measuring from cold end. In a kiln 100 feet long with a temperature of 100 degrees at the receiving end, this gives 200 deg. at the unloading end. Whether temperature be higher or lower, and kiln loaded or empty, the graduation of heat remains uniform. Pipes are so placed that the lumber feels the direct radiation of heat. The circulation is upward through the lumber, and downward at sides between brass condensing plates and inner partitions. Thus an absolutely even and progressive heating is secured. A circulation lengthwise of kiln is wholly avoided, a humid or saturated atmosphere can be maintained about lumber while heating up, and during the entire process heating precedes evaporation. As might be expected, the highest results are obtained, and never anything else. We avoid engines, fans, chimneys and additional heating rooms, having a natural and perfect circulation in a vertical direction, the only one that will secure even heating. The kiln is fire proof and more durable and sightly than any other. The last degree of economy is reached as we supply only the heat absorbed by the lumber, and that lost on the condensing plates. Among those who have bought and used all the kilns that have come upon the market, certain facts are accepted as satisfactorily proven.

1st.—That condensing kilns have a clear advantage over all ventilating systems of 30% to 50% in running expenses—fuel and attendance.

2nd.—That lengthwise or horizontal currents of hot air in a long kiln cannot possibly be made to heat or dry lumber evenly. If entrance and departure is at top of kiln, the body of heat will be at top, and bottom lumber will mildew. If entrance and departure be at bottom under the two end cars, the heated current will rise in centre taking a rainbow shape. An augur would be better adapted to rounding and truing billiard balls than such a current to even heating and drying of lumber.

3rd.—That all fans, blowers and power methods of creating circulation are worse than useless, because expensive, dangerous and destructive to even circulation.

4th.—That properly graduated heating appliances placed the entire length of kiln so that lumber will feel direct radiation of heat, is the only stable or unvarying or satisfactory means of securing or maintaining a progressive system of heating in a lumber dryer.

In conclusion, we can say this, we are prepared to give a valid guarantee to each purchaser, that our kiln will do more work in less time, at less expense, and in better condition than any other. When any other kiln will fill this guarantee, we will refund the cost of ours. We shall be pleased to furnish plans and estimates. Believing that purchasers need no other inducements than our guarantee, our references and our prices, we leave them to call on us, if they desire an interview instead of sending an agent to them, unless in exceptional cases. We shall be glad to have you call on us, and if you will to have you make our offices headquarters while in the city.

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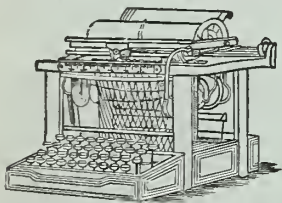
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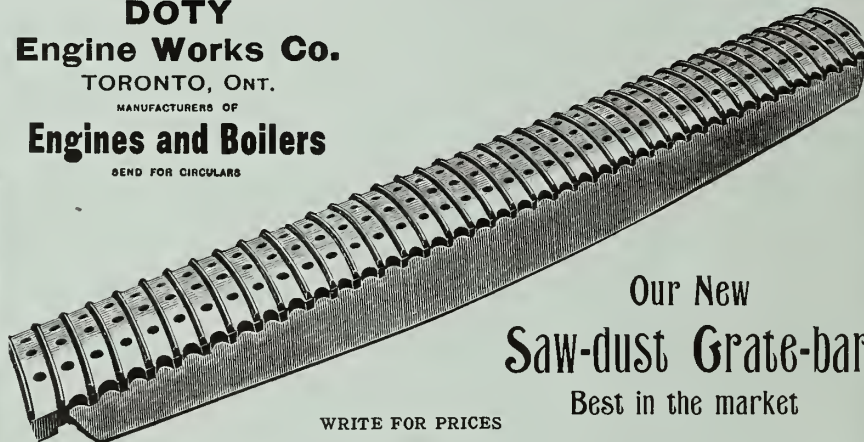
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VOLUME XIV. }
NUMBER 9.

TORONTO, ONT., SEPTEMBER, 1893

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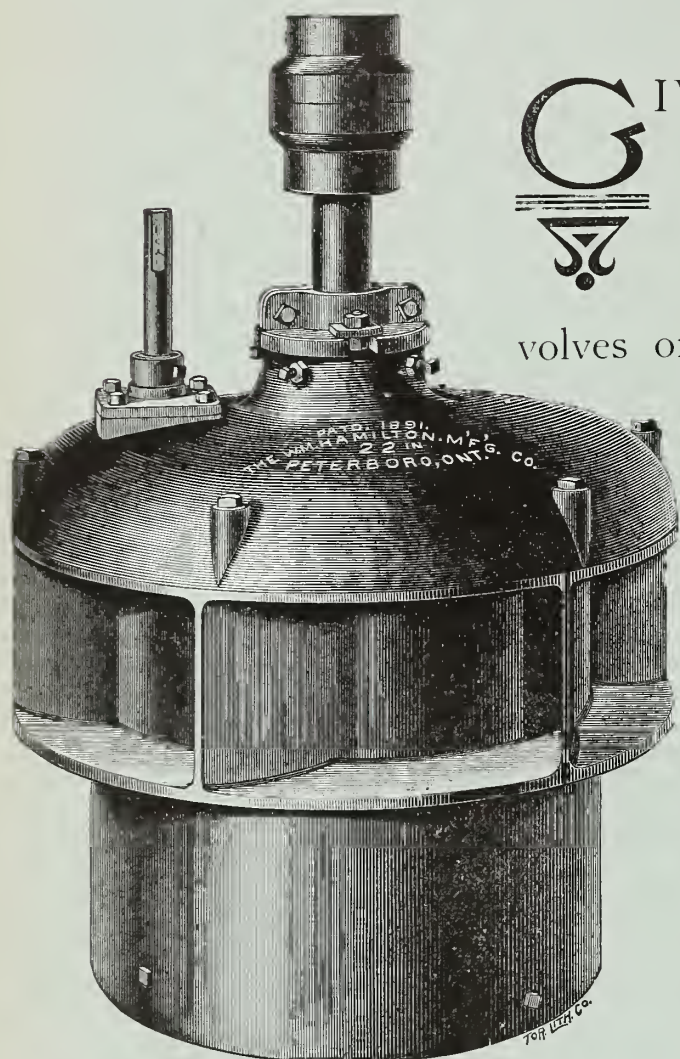
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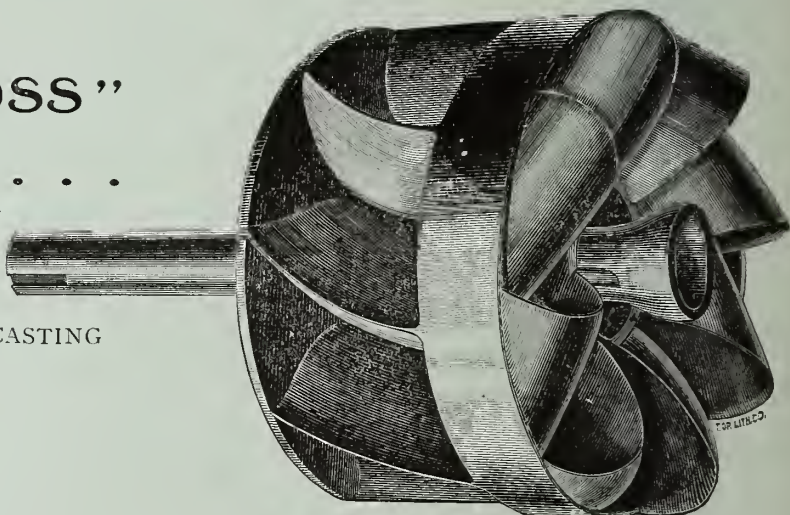
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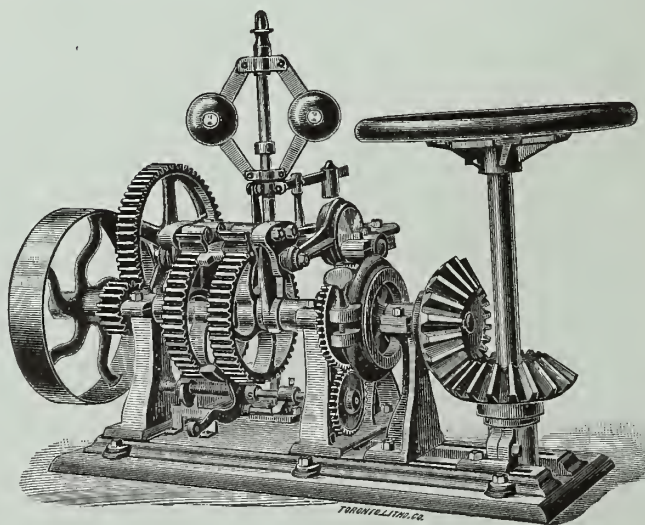
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BY THE WAY.

OUR friend ELL, whose nose for news is keen, regales LUMBERMAN readers this month with several stories illustrative of the large advances made in the price of Canadian timber within a comparatively few years. These may be taken, perhaps, as supplementary to others that have appeared in these columns at different times and that could easily be further extended. They all go to show what a valuable asset the country holds in its timber limits. If the advance has been so great in the past, what may be expected in the future as the forests become more and more denuded? This question may seem inconsistent to some in the light of the depression that hangs over lumber at the present moment. But this, as a second thought promptly suggests, is only momentary, and as is pointed out elsewhere in these columns, has its origin in causes foreign to the lumber trade itself. The condition is one that gives strength to those who tell us that Canadians should go slow in allowing to pass out of their possession this valuable heritage.

x x x x

In the cutting of timber the lumberman is getting deeper into the interior, and further away from civilization each year. It does not appear long ago when, so to speak, the timber was at one's door. Our Ottawa correspondent tells us that some of the logs that have reached the Capital this season have travelled a distance of 425 miles. This is a long drive. It is hardly to be expected, however, that conditions will become any better in this respect. The lumber mills of the Chaudiere will, in the future, draw their supplies of logs from increasingly greater distances. Similarly changed conditions exist in the Georgian Bay and other northern lumber territories of the province. The logs have been steadily removed further from the saw, and some of the changes that have taken place in the mills in that section have been due to this fact. It will no longer pay to bring logs the distance now of some mills, and these have been closed and the cutting is being done nearer to the saw.

x x x x

It is not to be supposed that the rapid denudation of the forests in Canada is exceptional to this country. Maine, Pennsylvania and New York state were rich at one time in pine, but they are practically bare to-day. The timber countries of the old world have had visited on them a similar experience. We do not know why in some respects anything different should be expected. To the lumberman who pays a large sum for his timber berths the practical value is in the cutting and marketing of the timber they contain. It may increase in value by being allowed to stand and judging by the figures in the ELL page this unearned increment grows into large and profitable sums. But in this case the value is after all in the prospective price of the timber when it shall have been cut. The difference between the older countries and the newer continent is in the careful and scientific effort that is made to preserve the forests so that they shall not become wholly extinct. The lessons of Germany, France, India, and in part Great Britain, are deserving of closer study and practice in these particulars than they have yet received on this continent. Michigan, Wisconsin and Minnesota are not in that position yet, but the cut runs into large figures each year and the supply is not limitless there any more than in Maine, New York or Pennsylvania. It may be said, on the strength of competent authority, that Michigan white pine is almost a thing of the past even now.

POWER STEAM.

EVERY man should know his own business. Not a small percentage of the failures that occur in commercial and manufacturing lines is due to the inexperience of the men who undertake to operate the business. When it comes to mechanical vocations, there are so many contingencies that may arise, that this remark applies with redoubled force. The question is discussed with clearness and ability in the Mechanical News with a special reference to steam. The remark of our contemporary is that the architect who undertakes to erect a building, or the mechanic who constructs an engine, without first obtaining a full knowledge of the properties and nature of the material used in such building, is almost sure to fail; and the engineer who takes charge of a steam engine, or uses steam for any purpose in mechanics or manufactures, should first acquaint himself with its nature and properties.

What then is steam? What are its natural chemical composition and properties? The Mechanical News answer these questions in these terms:

Water is looked upon by many as a common and simple element; and the mode of converting it into steam is known by every school boy of the present age. Not so with the constituents and properties when in the gaseous form. The analysis of steam, such as is usually generated in the ordinary steam boiler, has yet to be made, and consequently many vague theories and ideas are advanced. We can safely affirm that ice water and steam are one and the same substance, only that they are of different degrees of temperature. Then it is evident that the temperature gives different properties to the same substance.

The highest point to which ice can be raised and maintained as ice is 32 degrees Fah., but the highest to which water and steam can be raised has not yet been accurately ascertained. We know that at atmospheric pressure water evaporates into what is known as steam at 212 degrees, and above or below that point in accordance with the pressure to which it is subjected, and in proportion to the units of heat applied. Steam and water can exist in their respective forms at all temperatures above 32 degrees Fah., and in fact steam is known to exist much below the freezing point. We may say, just at this point, that we make no distinction between what is called vapor and steam; in fact, there is none, except temperature.

If the temperature of the air should fall sufficiently below that of the water in our bays and rivers steam would be given off from their surfaces, and become visible when condensed in the colder atmosphere. Steam can be condensed from the atmosphere by any cold substance being placed in it. A pitcher filled with ice will illustrate this. Steam is given off from our bodies at nearly the same temperature as the air. To prove this we have only to breathe on a piece of cold metal or glass, when condensation ensues and the water can easily be collected. When the atmosphere is much colder than our bodies this steam is made visible by condensation, and when the temperature is sufficiently low, has been frozen into ice upon the beard.

We have said here that steam was made visible, but when visible it is no longer steam, but minute globules of water, of infinitely small proportions, which, by their attraction for each other, under favorable conditions, form drops and fall in rain, or are evaporated again and carried off in the thirsty atmosphere.

Pure steam is composed of two volumes of hydrogen and one of oxygen; or, by weight, one of hydrogen and eight of oxygen. If two cubic feet of hydrogen and one of oxygen are united, they will form only two cubic feet of steam, or a volume equal to that of the hydrogen and equal in weight to both. Steam is three-eighths

lighter than common air. An atmosphere of pure steam would only weigh a little over nine pounds, yet water, of which it is composed, is 770 times heavier than air, it being in weight as 1, nitrogen 14 and oxygen 16.

The thermometer, being the instrument generally used for measuring degrees of heat, might be more properly termed degrees of expansion and contraction in the liquid or metal used in its construction. Quantity of heat cannot be measured by the thermometer, although it is indicated by the expansion of the material of which the thermometer is composed, to be either more or less intense. The goniometer is the most sensitive instrument in use for measuring minute differences in temperature. This instrument will not indicate quantity, but will indicate or detect the presence of heat, though insensible to the ordinary thermometer. The calorimeter is a device for measuring quantity. It consists of a glass vessel having two annular chambers, the inner one to contain the liquid or material to be tested; the other two chambers to contain pounded ice; the outer chamber of ice to prevent the action of the heat in the surrounding air from acting on the ice in the middle chamber. The quantity of heat is then obtained by the quantity of ice. The substance under test will dissolve in the middle chamber, and can be ascertained by the weight of water thus collected from the ice in the middle chamber; yet this will not give accurate quantity, as all the ice thus dissolved cannot be collected, a portion of the water being retained in the ice by capillary attraction, even though no heat were lost while conducting the operation.

Watt gives the latent heat of steam at one atmosphere as 988 degrees; at ten atmospheres as 840 degrees, Watt's theory being that 1200 degrees is the total heat contained in saturated steam, and that as sensible heat increases latent heat diminishes. In measuring the quantity of heat contained in steam the ordinary thermometer is useless. An approximation to quantity is made as follows: One cubic inch of water generated into steam contains sufficient heat to raise the temperature of 5½ cubic inches from 32 degrees Fah. to 212 degrees, making in all, when condensed, 6½ inches of water at 212 degrees, yet the steam only indicated 212 degrees. Hence if we multiply 6½ by 212 degrees, and deduct the 32 degrees contained in the 5½ inches of water, we will have 1202 degrees as the amount of heat obtained from 1700 cubic inches of steam, or the amount necessary to evaporate one cubic inch of water into steam, yet the steam will indicate, by the thermometer, as having only received 108 degrees. when, as shown by the calculation, it has received 1170 degrees and yielded up to the 5½ inches of water 990 degrees.

If we go on a little further, we will find that this heat was diffused throughout 1700 cubic inches of space occupied by steam—and here quantity takes the place of intensity—each atom of steam requiring its unit of heat to hold it in the gaseous form, for if one atom should lose its required unit of heat, it would be no longer steam, but would become water, and perhaps carry several of the surrounding atoms with it to the liquid form.

If we could compress the 1700 cubic inches of steam into one-half its volume without loss by radiation or condensation, we would find an indicated increase of temperature of 38 degrees, and it would continue to increase as the volume was reduced. Water at the boiling point cannot be made to indicate any higher temperature than 212 degrees. No matter how intense the heat applied, an increase of ebullition is all that is indicated until the body of water is all evaporated. It is during this period that the seemingly lost heat is carried off into the increased space occupied by the steam.

Rumford says that steam contains enough heat to raise ten times its own weight of water 102 degrees, or

102 times its weight 10 degrees. Water is the greatest absorbent of heat of any known substance. If we take equal weights of water and iron, and raise them to the same temperature, it will be found that the water contains ten times more heat than the iron. The heat required to raise one pound of water one degree will raise 4 $\frac{1}{4}$ pounds of air to the same height. Again, if one pound of mercury be heated to 160 degrees, and one pound of water to 40 degrees, and mixed together, they will give a temperature of 45 degrees. But if the water be heated to 160 degrees, and the mercury to 40 degrees, and then mixed together, they will give a temperature of 155 degrees. The five degrees taken from the water will indicate an increase in the mercury of 115 degrees. On the other hand, the 115 degrees taken from the mercury will only indicate 5 degrees in the water; showing that the different bodies have different capacities for heat.

Water, although the greatest absorbent, is a poor conductor of heat. It can be boiled in a vessel only a few inches in depth, and emit steam from its surface, without materially increasing its temperature at the bottom. The ease with which steam gives out its heat is of great annoyance to the engineer and also of great service in the steam engine by its rapidity of condensation. Many devices have been resorted to to prevent the radiation of steam, such as jacketing and superheating it in the boiler. Superheating has been applied in various ways, and the poor conductive property of steam makes it possible to have steam at different temperatures in the same boiler, unless a very active circulation is kept up. If pure steam be superheated beyond the point of loss by radiation, it becomes subsaturated or surcharged with caloric, and acts upon the iron of the boilers and engine with a deleterious effect. Oxydizing the same, when superheated or subsaturated, its absorbing properties are increased on account of its inclination to become saturated or attain its normal condition. If expanded in a cylinder, it will take up a portion of the water that may have been formed by contact with the colder surface of the engine. When expanded it falls in temperature, and it follows that the temperature being reduced, the boiling point is also reduced, which allows the greater portion, if not all the water so formed, to flash back into steam, it having obtained the same temperature as the steam at its highest pressure.

A sudden ebullition, which produces what is sometimes called priming, is caused by the same law of pressure regulating the temperature of the boiling point; for water can be heated to any degree to correspond with the pressure applied of its own vapor, and might be so confined as not to evaporate at all. The solvent property of fresh distilled water is known to produce the brown substance found in pipes and on the tubes of boilers using it, causing what is termed pitting of the iron. This brown product by analization is found to contain 79 per cent. of the oxide of iron and 15 per cent. of water with 1 per cent. of silica. Steam having similar properties as distilled water, when superheated, acts still more powerfully on the iron of the boiler, superheater or engine; and because of this corrosive property in surcharged steam, superheating to any extended degree has been abandoned by many engineers. An eminent engineer—who is unfavorable to superheated steam—explains superheating thus: "In order to utilize the maximum effect of steam, it is not necessary to overheat it. After a pure steam is formed, that is, when all the particles and bubbles of water are evaporated, water which accompanies the steam in such a form has the same temperature as that due to the surrounding steam pressure, preventing it from vaporizing, and when it passes through the superheater the temperature is greatly increased, while the pressure remains the same. It being in connection with the steam room in the boiler, allows the water to vaporize, and a pure steam is formed.

Pure steam is the vapor from water, free from watery particles, all foreign substances or other compound gases than oxygen and hydrogen, and of a temperature equal to the temperature under which it was produced. Subsaturated steam is that under which it was evaporated, and it can be raised to any degree of heat the vessel will endure in which it is contained, its absorbing properties becoming greater with each degree.

VIEWS AND INTERVIEWS.

Business Negatives.

The aggressive man, especially in business, where all is supposed to be "go," will usually receive a generous share of praise from those around him. He deserves it. Aggressiveness is a desirable qualification. It is a positive element of character that can, as it were, be seen and handled, and is more readily comprehended than any mere negative force. Yet as Milton has intimated in his own beautiful way there is such a thing as doing nothing sometimes and accomplishing more than those who are all bustle and stew. "They also serve, who only stand and wait." What not to do is oft-times as important as what to do. The "dons" of life are as essential as the "do's." The small boy's definition of "salt" as "the stuff that makes potatoes taste bad when you don't put any of it on," is suggestive of more than a mere laugh. There is a sound business philosophy beneath the humor, and of a kind that in the present times, when business affairs are somewhat rocky, might be worked out with profit by many business men.

Sawmill Economies.

An impatience, born largely of the times in which we live, causes many men to become neglectful of the details of business. It is forgotten that the largest business is after all only a massing of details. The lilies make the muck. The present, in the judgment of the Southern Lumberman, offers a splendid opportunity for lumbermen, whether manufacturers or retail yard men, to study and put into effect every opportunity to watch these lilies, and thereby reduce the expense of handling lumber. "There is such a small margin," says this Nashville journal, "between the cost of delivered logs and the selling price of lumber that the old wasteful methods invite a suspension of business, if not a receivership. Suppose every sawmill man and every yard dealer will take advantage of the present lull in business and consider carefully all the little wastes and useless expenses incurred in his business; it is almost certain that he will find that much of his profits go to waste in the little minor details of his business that in flush times he thought were not worthy of his attention or worth the trouble to look after. In a saw or planing mill the item of oil is generally considered a small matter. In nine mills out of ten one-half of the oil paid for is worse than wasted, because leaky cans and no particular place to put them increase the fire risk and cause loss of time. Tools used about such establishments cost money, and when left around loose where last used are hard to find sometimes when wanted in a hurry, and they have a faculty of disappearing unexpectedly. In a lumber yard piling sticks are often thrown in loose piles to take the weather till again needed, when perhaps many of them are so warped as to be useless. It is not possible to point out every line in which economy is practicable in each individual case. The leading idea should be to curtail expenses that are useless. Every lumberman can think them out for his own business. The very general, erroneous, and most hurtful idea of economizing in the matter of expense in the manufacture and handling of lumber is to lay off the working hands or to reduce working hours or wages. That should be the last resort. First, look over the details of the business, stop the small and useless expenditures before depriving the faithful workmen of employment. The ranks of the unemployed to-day would not be so full if a sensible economy had been exercised in all our industrial departments."

A Knowledge of the Past.

In the brightness of the nineteenth century there are found not a few who pretend to despise the experience of the past. They live in the present, what concern have they with the dead records of by-gone years? The mistake is a fatal one to genuine success in any calling. What we are to-day is the natural sequence of what our fathers were before us. The civilization of this age is built upon the savagery of a past age. A trade cotemporary makes an application of thoughts of this character to the young man of to-day who in his lordliness would despise an acquaintance with the com-

mercial history of the past. "If one should suggest to him the propriety of reading the history of commerce and the business history of the world, he would say, these things don't interest me. What I want to know is how to run my business to-day and how to make money. I am not interested in what happened a hundred years ago, nor how the old heathen made money when the world was young. This remark was made over and over again during the American civil war. It was made repeatedly after the war was ended. And yet, because men had never known the history of money, and did not know that it had its rise and fall in price, like any commodity, thousands of men were ruined in New York city by the depreciation (as they called it) in the value of property. Had they been familiar in boyhood with the course of speculation, they would have known when the war began that the value of money was going down, and that they became rich by putting their money into commodities or real property. When the war was over and the value of money began to appreciate, they should have known that this was the time to reverse their operations and exchange their goods and real estate for money, and thus escape from the losing side of the speculation." In troubles that oppress the neighboring republic at the present moment had more healthy financial notions been entertained some years ago the depression that is now bearing down upon so many might have been lessened. The laws which govern the course of trade are as little to be trifled with as the laws of nature. They may be suspended or thrown aside for a time, but they are there. Because "the mills of the gods grind slowly," young men are prone to forget that they grind at all. When they wake up to the fact that they have been ground "exceedingly small," it is too late to learn their lessons over again. The grinding goes on, but lines of business in which they may have prospered for years are suddenly wiped out of existence with a vim that seems altogether out of proportion to the sins they have committed.

THE AUSTRALIAN TIMBER TRADE.

SOME idea of the present position of the timber trade in Australia can be gained from the report of an influential deputation of timber merchants from that colony, which recently waited on the Colonial Secretary. The information gleaned makes the position, according to Timber, of London, Eng., about as bad as it can possibly be. The bank stoppages have, of course, had a good deal to do with this state of things, but for a long time past the building trade in and around Melbourne, particularly, has been in a very bad state, and, as a large firm of brokers remark in their circular, "business all around has been more or less at a standstill."

A perusal of this report, says our cotemporary "will show that our Colonial friends have many just and reasonable grounds for complaint, the principal of which is that, in spite of the large number of people (some 10,000 it was stated) employed directly and indirectly in the timber trade of Australia, and the splendid native timber which that country produced, no less than eight million feet of dressed and sixty million feet of planed timber was imported, we presume, every year. Bountifully as Australia is supplied with wood, most of the varieties cultivated there are hardwoods, which, although admirably suited in many ways for building purposes, entail, of course, a much greater expenditure of labor than the bulk of the wood imported, viz.: Oregon pine. This was to be remedied, the deputation suggested, by increased import duties, which is apparently the only way out of the difficulty. The whole trade of Australia is passing through a more serious crisis than there has been experienced for a long time, and the timber trade is evidently taking it as keenly as any other."

A SAFEGUARD.

WHEN the water is found to affect the boiler plates only in particular places, as at the water-level, it is well to use thicker plates at such places, and to arrange them so that the seams do not come within the region attacked by the water.

NORWAY has abolished the export duty on lumber of all descriptions. This duty amounted to an annual income of about three hundred thousand kroners to the government.

A MODEL SHINGLE MILL.

A VISIT TO THE PARKIN LUMBER CO.'S WORKS AT LINDSAY.

THE accompanying view is a good representation of the new shingle mill recently put in operation by the Parkin Lumber Co., of Lindsay. On the invitation of the proprietors and Mr. F. J. Drake, the mechanical expert, a LUMBERMAN representative paid a visit to this establishment during the past month, and amid the hum of machinery and the general bustle, which the turning out of 120,000 shingles a day makes necessary, he witnessed with interest the process from stage to stage of the log being converted into that unpretentious but ever-necessary commodity—the shingle.

Our illustration shows the main building, dry kilns and railway siding, the public and private offices, engine and boiler room being situated in the rear. The mill building proper is constructed of brick, being 45 x 100 feet in size, and composed of three floors, or flats. This, as well as all connecting buildings, is so constructed as to be practically fire-proof, the object being to do away entirely with fire insurance, which, according to the past experience of the firm, proved anything but satisfactory.

Viewing this as the most complete shingle mill yet constructed in Canada, and, perhaps, second to none on the continent, both as regards buildings and general equipment, a brief description of the mode of manufacture from the log to the perfected article may prove of general interest to LUMBERMAN readers.

The logs are drawn into the mill by endless chains, driven by friction-gear log jacks, so constructed that the chain can be driven forward or backward, as the operator may desire. The log is then delivered to the drag saw, where it is held in place by two improved log holders, which hold the log perfectly rigid while being sawed into proper lengths for shingles by means of drag saws. These drag saws are made entirely of iron and steel, driven by friction, the saws being 12 x 78 inches in size and run at 180 strokes per minute. The blocks pass from here to a saw splitter, or bolter, with a 4-in. steel mandrel, and balance wheel weighing 1,200 lbs. The blocks, after being split, are elevated nearly 24 feet on an incline to the shingle machines above. From these machines the shingles drop to the jointers, where they are edged and sorted, great pains being taken to secure the greatest quantity of first grades out of stock being manufactured. The jointers all consist of 40-inch saws, with iron frames, constructed for two operators, who edge and sort shingles into three different classes. They are then packed into quarter-thousand bundles, twenty inches wide. From here they are conveyed in cars, constructed for the purpose, to the dry kilns, where they are made shipping dry and ready to be placed on board cars for shipment to the United States.

The line shaft is of 4-inch steel, turned to gauge and polished. The bearings, or journal boxes, are all of four

diameters, or 16 inches in length, for a 4-inch shaft and lined with the best quality of Spooner's "Copperine." All pulleys are turned inside and outside, and perfectly balanced. The log jack frames are of iron, made in one solid casting. The friction gearing is so powerful as to be capable of breaking a three-quarter inch chain. The drag saws also have heavy iron frames throughout, no timber whatever being allowed in their construction, even the pitman being of steel. The log holders were designed especially for this mill, operated by friction, and guaranteed to hold anything from the size of a match to a log five feet in diameter. The saw and refuse conveyors, and block elevator troughs, are all made of heavy sheet iron, with endless chains, and are complete in every detail.

The detail equipment of the mill is as complete as modern engineering skill could well devise, no pains having been spared by the inventor of the machinery and engineer of the work to construct everything in the most modern and best style.

The credit for the success of this model mill is largely due to Mr. F. J. Drake, of Belleville, Ont., who

"The country is very level with good drainage towards the streams. Back ten miles from Rainy river and upon the heads of the Black Rapid and Beaudett rivers there stands in groves a fine lot of No. 1 pine which will find its market in the prairie country a few miles west of it that contains no rich timber for a thousand miles. This reservation is being surveyed by the government preparatory to selling its ten to twelve million feet of pine to the highest bidder at no less than \$3 per 1,000. The pine lands are being subdivided into forty acre tracts with a good plain transit line around each forty.

"The country farther east, out of which the Big and Little Fork rivers flow, is much the same with the exception that it seems to be a little higher and the timber of an older growth. These two streams are over 400 miles long and are fed with innumerable branches, all with deep, swift current, and high, clean banks. All these streams rise to a great height in time of freshets, but generally do not overflow their banks. Five million acres are drained by these streams, the water from which flows north through Rainy river and the Lake of the Woods into Hudson bay.

"Nearly all the good pine in this northern country stands on these two streams, and it is estimated that they contain upward of fifteen billion feet. Only 30,000,000 feet is now cut annually on them, and the logs all find a market with the Canadian manufacturers at Rat Portage and vicinity at from \$8 to \$15 per 1,000 and quick sale, being a much better price than could be had in Minneapolis. The cost of driving on these streams is hardly 25 cents per 1,000, with comparatively no loss, as there are no marshy rivers to run through and no place to lose logs by getting out of the channel.

"Several million acres of this country is yet un-

surveyed, consequently unexplored. Further up on Vermillion and other American streams, the country is rough and considerably rocky. The pine is smaller, running about ten logs to the 1,000. The same can be said of the Canadian side of this big water course. Rainy river is from one-quarter to one-half mile wide, with a deep channel and two mile current, clean, high banks, and with about six hundred farms fronting it on the Canadian side.

"One farm at the foot of Rainy Lake at Fort Francis (an old Hudson Bay Fur company post) has been cultivated for eighty years. On the American side at the mouth of Big Fork river, there is a new town being started named Hannahford. At this place the Canadian lumbermen have built a boom to hold logs that formerly went to the mouth of Rainy river to be rafted. It is rumored that the seven mill companies at Rat Portage intend moving their mills up there, and will barge their lumber across Lake of the Woods instead of towing logs in rafts, as an average loss of about 20 per cent. will be saved, besides the difference in cost of towing."

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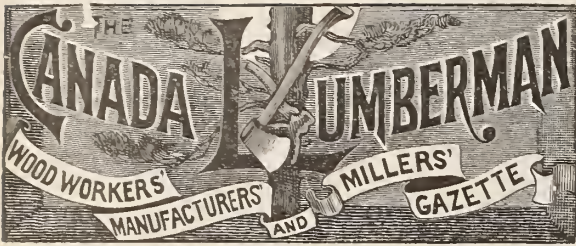
THE PARKIN LUMBER CO.'S SHINGLE MILL, LINDSAY, ONT.

supplied nearly all the machinery from his own patterns and personally superintended the work of construction. He is proud of his work and invites all interested to pay a visit to Lindsay and see in operation the best equipped and most complete shingle mill in the Dominion.

RAINY RIVER PINE.

IT is hardly possible in some cases to give a description of climatic and natural conditions in one section of either Canada or the United States without finding that these have a close relationship to conditions on the opposite side of the border. A writer in a Minnesota paper has been telling of the big lumber country on the north side of that state, and in doing so furnishes certain information of interest to lumbermen along the Canadian line.

"Commencing with the north side of the Red Lake Indian reservation," Mr. C. S. Sheppard, writer of the article, says, "I find that the country along Rainy river has a very rich soil with clay subsoil, and is heavily timbered with poplar, spruce and white and black ash.



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J. S. ROBERTSON, - - - EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

LUMBER TO-DAY.

As the fall season opens, business in all lines is expected to be marked by fresh activity. What will be the experience of the lumber trades? is the question that specially concerns lumbermen. A considerable measure of anxiety surrounds the question because of the unexpected and depressed turn that the lumber market has taken in the United States within the past two months.

On the opening of the lumber season in the early spring, lumber in that market could not be supplied fast enough to meet the demand. Prices not only stiffened, but with white pine, advanced from \$1 to \$3 per thousand over former figures. It was not an unwarranted confidence that caused lumbermen then both in Canada and the States to say plainly that lumber was enjoying a substantial boom. The enjoyment was plainly visible and get-at-able.

The situation has undergone a radical change. Rather more than two months since a measure of concern was observable in lumber quarters, and some lumbermen began to talk cautiously of a reaction. Then followed a tardiness in closing lumber sales. Transactions became slow, then stagnant. A little later word was passed around that this firm and the other were in financial difficulties and some suspended. The banks were reported to have become chary of discounting mercantile paper which a few months earlier they were only too pleased to have the opportunity of melting down for their customers.

These conditions could only have one ending and within the past thirty days the situation has become so serious that the large millmen of Michigan, Wisconsin and Minnesota, and further yet, down in the southern States, are resolving, after canvassing conditions carefully, to close down their mills at a very early date, for the reason that lumber is not selling, their piling grounds, which, before, were bare, are being awkwardly overcrowded, and a further cut would only aggravate the

situation. The Mississippi Valley men have, in solemn convention, already fixed the date for a general closing down of the mills, viz., Sept. 20. In this one case this action will mean that the cut of timber will be reduced by about 1,000,000,000 feet, which represents for cutting and piling a lessening of expenditure by about \$1,125,000. As we have intimated, for similar reasons, and where like necessitating conditions exist, the millmen of Michigan, Wisconsin and the southern States are, if they have not already done so before this issue of the LUMBERMAN goes to press, decided on doing as the Mississippi Valley has resolved to do.

This is a plain setting of the situation as it appears at the time of the present writing. The Northwestern Lumberman states the case thus:

"Extreme depression of demand in Saginaw Valley, at Manistee, Menominee, Marinette, Duluth and Minneapolis are noted. The operators who had contracted sales of a large portion of this season's product, and counted on that to help them through the season of quiet demand, are finding that it is one thing to make contracts and receive notes in consideration of sales, and quite another to be able to deliver the lumber and realize on the notes. They find that the notes they have received are not convertible into cash, and it is the money they need to pay current expenses, as nothing else will answer in the present state of prostrated credit. Hence they might as well have lumber in pile as notes on which ready funds cannot be realized. Some who had contracted for lumber to be cut, are pleading to have the logs carried over, or the lumber held at the mills, because they do not want to give either notes or cash for it. The lumber is accumulating at the mills in such volume that piling room is becoming exhausted, and the necessity of shutting down the mills is imminent."

It is a satisfaction to be able to say that the circumstances that have led up to these darkened conditions are not inherent to the lumber trade. The monetary disturbances that are giving so great trouble to the country to the south, the silver perplexity, in particular, are the root difficulties in the lumber depression. The general distrust that has affected every branch of commerce, shaking public confidence so that a universal shrinkage of trade has been the result, could hardly be expected to leave unmolested any branch of business no matter how flourishing it may have been. It has not done so, and consequently the lumber trade, with other departments of trade, is suffering. The rift in the cloud is to be measured by this fact that when the troubles of the day are conquered lumber will be one of the first trades to recover. Lumber itself, whether in the standing tree in the forest, or in the manufactured stuff in the mill, is as safe a commodity to possess to-day as it was in the month of March, barring this one exception that it may require a little more foresight, a larger patience, and possibly a plethoric bank account to hold on to it to-day for profit.

What is the result of the present situation on the Canadian lumber market? Sympathetic, of course. Our lumber goes in large quantities to the States. What it means to close out, or curtail, to any remarkable extent, this important outlet of lumber production is obvious. Lumber trade is quiet in Canada just now because of the depression in the States. More than this is not unlikely to be an after effect. Neither American lumbermen, who own limits in Canada, nor our own lumbermen, will be disposed to enter extensively into winter work in the woods until the clouds that are thick and black just now show signs of rolling by. The LUMBERMAN believes they will roll by and perhaps in time for substantial gains to come to the trade, in part, this fall. We would, however, be serving the part of a false friend of the trade were we to do otherwise than clearly and fully place before our readers the real situation, adding not thereto, nor taking from, as it exists to-day.

EDITORIAL NOTES.

"BENEFITS of Organization," was the title given to a paper read at the recent meeting of the Poplar Manufacturers' Association of the United States by Mr. M. T. Greene, the president. On general principles the benefits that come to any class of men by organization are obvious. There are abuses that grow out of the

organization of business men, but it does not follow that these need to be in any way a part of these organizations. During the past month various associations of lumbermen have been meeting in different sections of the United States and a report of the proceedings of these meetings furnish very clear evidence of the advantages that accrue to business men engaged in the same line of business getting close to one another. Organizations of business men are not wanting in Canada. One of the most important of these, the Dominion Millers' Association, held a successful meeting the second week in August. The LUMBERMAN mentions these bare facts not for the purpose of following up the argument for such organizations. This has been done on other occasions in these columns. Moreover, our opinion is that the argument is known to, and realized by, business men of all classes. We simply rise to ask, as the old Methodist preacher has said, why is it that among these organizations, there is no association of Canadian lumbermen?

CONFIDENCE is born of practice and it is difficult to say what a man may not accomplish in almost any walk of life by persistent effort. In the mechanical arts a dexterity that becomes marvellous is sometimes attained by workmen. These are things to be admired were it not that this dexterity too often develops into the most terrible recklessness and leads frequently to loss of life. In our news columns this month is recorded a sad fatality that overtook an expert band sawyer in one of the Ottawa mills, where the body of the man was literally cut in two. We are told by a fellow workman who knew the deceased well that he could do fully twice as much as an ordinary workman. It was his work to run the band saw, and he was noted for his great dexterity in "flipping" the logs on to the carriage. Frequently he had been warned to be more careful, for it was known that the work was surrounded by dangers. It is no lack of sympathy for the widow and family that causes friends to say that Marquel might have been living to-day had he heeded these words of caution. Nor is his case exceptional. A fuller knowledge of many accidents that occur in sawmills and elsewhere will show that with many, carelessness and recklessness on the part of the injured ones were the bottom cause. Particulars are before us of a recent accident where an oiler in a mill went about his work with some cotton waste sticking out of a pocket. The waste caught on a projecting set-screw, then his clothing caught, and the result was the man was killed. Eternal vigilance, it has been well remarked, is the price of safety in the mill.

VARIOUS and queer are some of the notions entertained in regard to money. Why cannot the government make money enough to meet all wants of its people? is the stupid question asked not unfrequently by people who would be insulted were you to intimate that they were stupid. The United States has been filling its treasury for months back with silver dollars at the rate of four million a month, and while its vaults have been full to bursting the country has been passing through a tryingly severe financial depression. The condition is not at all novel to students of economic subjects. The history of the English land bank scheme, the Rhode Island paper bank experiment, the John Law bubble in France, the land loan fiasco of the Argentine Republic, the crop moving paper currency of Mississippi, the banking mistakes of Alabama and Michigan are examples illustrating the inevitable result of schemes to inflate the circulation with cheap and valueless money. To borrow an illustration from Adam Smith, even sensible men forget sometimes that the highway to a particular place is not the place itself—the houses and lands. It is simply a means of reaching the place. Money is only a vehicle of exchange, and must have behind it something which is something. Dollar bills may be run off the printing press to advertise the wonderful values that some shoddy dealer is offering in pants, but when you come to buy the pants you must put a more tangible value behind the handsomely printed bill the same dealer has given you. The money issued by tailor or government is worthless if it has nothing substantial as its real representative.



OUTSIDE views of a newspaper office are very varied, and often quite amusing. Will Carlton's poem of the farmer who wanted to make an editor 'outen' of his boy Jim is one view of the material of which editors are supposed to be made. It is needless to say that the old farmer was off color on this occasion. In a sketchy article in a recent Scribner we have a lumberman's idea of the kind of timber used in making ye editor which, it may be remarked, hits the situation more closely than did Mr. Hayseed. "Newspaper making," says Julius Ralph, the writer of the article, "is not a business, except in the publication office. It is not a business—as the word is meant to be used—in the editorial or reporters' rooms. The kind of brains that are powerful there would not fit a man to earn his salt in trade. Once, when I called on a millionaire for a piece of news, at seven o'clock every morning, twice a day at his office, and at least once every night at his home, he said to me: 'You newspaper men amaze me by your persistence and enterprise. I have made ten millions in the lumber business, but if I could have employed young men like the newspaper reporters, I would have made one hundred millions in half the time.'"

* * * *

Mr. D. Ring, foreman of the Bronson & Weston lumber company, returned to Ottawa a few weeks ago. He has been engaged for over a month on the construction of a short railroad as overseer. At Bay Lake where he was working at the very head waters of the Grand river, some 50,000 logs are being piled ready for transshipment across the height of land and thence down by the tributary streams saving a long turn of several hundred miles. The storms in that region he describes as most terrific, tearing the mighty trees of the forest and doing great damage.

* * * *

"My shipments," said Mr. Norman McIntyre, of Durham, "are altogether of elm and ash, which goes as square timber to the United Kingdom. This season I am finding trade slow. The British markets are very lacking in buoyancy and it does not look as though a period of revival was near by. It had been my intention to cut considerable during the coming winter, but unless business looks up between now and the time to get to work in the woods, I shall withhold much logging next winter. There is a good supply of elm and ash in our district. I don't speak of soft elm, which, I understand, is rather scarce."

* * * *

"Business is pretty quiet in Canada so far as lumber is concerned," said Hon. R. A. Loveland, president of the Saginaw Lumber & Salt Co., on his return from a trip through the Dominion and the eastern states. "Prices are maintained, however, and the people are all eyes and ears as to what is going on this side of the line and what congress will do. They seem to think over there that if the purchasing clause in the silver bill is repealed it will inspire greater confidence. The banks think very favorably of the operations of Michigan lumbermen and have had extensive operations with them. I have been told by Canadian bank officials that they have always found them prompt and reliable. In regard to the New England market and Boston, prices have not dropped materially on pine lumber but spruce has declined considerably. In looking over the Albany market, I've never seen so small a stock on hand for this season of the year and the dealers say that the buyers in the month of July were few and far between, but they are now looking for a good fall trade. In my judgment there would be very little, if any, more lumber sold if prices were reduced. Our company has plenty of logs and our own mill at Crow Island is running full capacity and three mills of Bay City are cutting logs for us. We have plenty of dockage room for the next

ninety days. The yard trade as a whole is quiet and Micawber-like is waiting for something to turn up."

* * * *

"Experience," says Mr. Geo. Hague, general manager of the Merchants Bank, "shows that it is more and more difficult to carry on business successfully. There was a time when almost anybody could make money either out of farming or any other pursuit. In these days it is impossible to succeed without a practical knowledge of business, close application, the adoption of all new methods and appliances, and the exercise of sound judgment and self-restraint in giving credit. The banks, as a whole, hold the purse-strings of the supply of gold for mercantile purposes, and all my experience points to this conclusion that they have it in their power to do much to promote mercantile success or failure. I verily believe, looking back over the varied events of thirty years' management in Toronto and Montreal, that if the banks generally came to a good understanding among themselves as to the manner in which they would lend money, the rules they would adopt about the security for it, and as to limitation in amounts according to the circumstances of borrowers, the number and amount of the failures that occur year by year might be diminished one-half. I put this on record as my deliberate opinion, and would be glad if due note were taken of it. What benefit would arise from this you can readily imagine. I for one would be well pleased to see it."

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Mr. McRae, of McRae & Co., Ottawa, Ont., speaking of the new patent for the treatment of beech and birch woods, the control of which has been secured by his firm, said: "The great objection hitherto held against these woods is the fact that they are very difficult to season, and even when they have been seasoned fully 40 per cent. is defective. By the new process the sap is sweated out of the boards by being placed, in a green state, in steam chambers for twelve days, after which it is put into the drying chamber for two or three days, according to thickness, and then, by a chemical application the wood is stained throughout a rich walnut color. The process has been tried on a large scale in Germany for the past eighteen months, and has proved such a success that experts acknowledge that wood so treated is superior to walnut, and the owners there write that they are quite unable to supply the demand. No country in the world has such forests of beech and birch as Canada, and the discovery of this process will no doubt greatly enhance their value. A trial kiln has been built in Ottawa, and the first parcel turned out is so satisfactory that works for the treatment of twenty-five car loads monthly will be erected there immediately, and arrangements made for the erection of two other plants, one in western Canada, and the other in the Province of Quebec. It is probable that the bulk of the first season's output will be shipped to England, where the wood is well known and can be readily sold on a profitable basis."

* * * *

An Ottawa gentleman, who believes he knows the lumber business of Ontario and Quebec quite familiarly, talked freely the other day of the profitable deals that have been made at various times in Canadian timber. He said: "William Mackey bought, I think, for \$30 the Amable du Fond timber limit 130 square miles on the Mattawa river thirty-one years ago. He has held it since, occasionally cutting a little timber, and eight or ten years ago he was offered and refused \$76,000 for the limit. This was not a bad advance on the original price, but this spring, it is said, a bid of three-quarters of a million dollars came to Mr. Mackey for this same limit. And gauged by the advance in value of other limits in the same period, this appreciation in value is not exceptional. Mr. Mackey again declined. Mossom Boyd, in 1886, paid \$86,000 for 68 square miles of pine timber on the north side of Lake Nipissing, which affords an outlet for logs to Georgian Bay, whence the logs are rafted across Lake Huron to the Michigan sawmills. Boyd did not cut any timber on this limit. He held it until last year untouched, when it was sold for \$450,000 to Davidson & Hay, Toronto. Six years brought him a profit of 400 per cent., or over \$360,000. The Hon. Peter White, of Pembroke, Speaker

of the Dominion House of Commons, bought a limit of 150 square miles on the Magnassippi river, near Mattawa, from David Bell fifteen years ago for \$72,000. Last year he sold this territory, on which meanwhile he had felled a good deal of timber, to the Hurdman firm, of Ottawa, for another quarter of a million. They say that J. R. Booth seven years ago bought from Charles Smith, of Ottawa, for \$67,000, a pine limit on the north shore of Lake Superior. That limit is now held at \$400,000. J. K. Ward, of Montreal, bought four or five years ago from the Mercier government of Quebec province, a timber limit on Lake Expance, among the head waters of the Ottawa, paying, it is said, some \$3 a mile. He holds it now at \$1,000 a mile. Perley & Pattee sold to Arthur Hill & Co., of Saginaw, Mich., a large limit on the Madawaska for a big sum, said to be close on half a million dollars. Sixteen or eighteen years before they bought it for a few thousands. The story is told that Mr. G. P. Brophy was standing in the rotunda of the Russell hotel one day some eight years ago, when a business acquaintance stepped up and offered to sell him a small limit on the Upper Ottawa. "What's your price?" said Mr. Brophy. "Twelve thousand dollars." "I will give you eight thousand." "Make it ten," said the seller. Mr. Brophy is a keen, sharp business man, as well as competent engineer, and no man in Canada has better chances of sizing up speculative opportunities in timber. But he could not, any more than any one else did, calculate at the time the money in timber limits. He declined. Subsequently the limit was offered to him at his own figure. He again declined and he had the pleasure last year of seeing the same limit change hands at \$86,000."

* * * *

Editor Met L. Saley, of the Northwestern Lumberman, in a paper on "Ignorance Concerning Woods," read before the World's Fair Congress, said: "If I were to arraign more severely one class of men than another for their ignorance concerning woods, it would be our architects, for the reason that it is their business to know. They can tell us about the wearing quality of stones, the crushing strength of this material and that, but when it comes to any specific knowledge of the lumber used inside of our houses for doors, casings, floors, mop boards, and possibly ceilings—objects which are constantly before our eyes—they are woefully ignorant. When furnishing a fine house you select for one room furniture, carpets and draperies of colors to blend, and for adjoining rooms other shades to carry out a general idea of harmony. If the upholstering of the furniture, the carpets or the portieres were to turn another color, the harmony would be destroyed. So it may be destroyed through the lack of knowledge on the part of the architect. Were you to ask the question, 'I desire to finish my front parlor in one kind of wood, my back parlor in another, the reception hall in another, my library in another; now as these rooms are practically one, what woods shall I use in order that the harmony may be preserved after the house shall have been in use for years? I am fearful that you would fail to find an architect who could answer it. Architects pay little attention to these vital points, which are really most intimately connected with their business—in fact, are and should be regarded as a part of their business. I am not aware that an architectural journal has given a line to this subject, and the furniture papers are equally dumb. Exposure has much to do in changing the color of wood. There is a piece of wood on my desk of a rich, dark brown color, and no man into whose hands it has been placed has rightly named the kind. The color which age has given to it misleads as to identity. A shaving taken from it with a knife reveals a bright saffron color, for it is nothing but osage orange. It has been remarked that yellow pine as finish is too glaring: for no great length of time will it offend the supersensitive eye in this respect, however. It becomes darker and darker, until it acquires the shade of old mahogany. The grainer's occupation is gone. No man can now earn a living by counterfeiting woods. People have learned in this line that nature surpasses art. Even in many of the cheaper dwellings now erected the finish is in natural wood. Considering the fact that wood in its natural state is used so extensively, it seems to me that architects and builders should make a study of it."

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE drive of 30,000 logs cut on the Gilmour & Hughson limits on the Gatineau, and to which I made some reference last month, are coming along in fine shape. These logs, it is worth remembering, were cut 200 miles above Ottawa. They average sixteen feet in length and from three to four feet in diameter, the majority not being less than 44 inches in diameter. The average log of this drive, in short, contains a quantity of timber equal to that in five and a half standard logs, the standard lumberman's log being 12 feet long and 21 inches diameter at the top. These enormous Gatineau logs are yellow pine, the very finest timber in the forests, and when sawed will give on the average each 1,300 to 1,400 feet or from \$30 to \$40 worth of lumber. The size of the logs rendered necessary the manufacture of special cant dogs as the regulation size could not open wide enough to handle the giants. Jos. Hawkin, of New Edinburgh, who manufactured these cant dogs, says that in his twenty years' experience on the river he never saw anything to equal these logs for size.

LARGE DRIVES.

The Mattawa is once more clear, the cookery crib, the last of 75 cribs of 1,500 pieces of Perley & Pattee's drive having come to hand. Ten pointers and winch boats were portaged to the station, and with the balance of the outfit belonging to J. R. Booth shipped back to Nosbonsing, for next season's operations. Of Booth's immense drive, 130,000 came down the Sturgeon, crossed lake Nippissing, were lifted by the big mill at Wisawasa and shipped over the diamond to lake Nosbonsing. The following is the Mattawa's contribution to the vast aggregation of logs and timber floating down the Ottawa this season, viz.: J. R. Booth, 450,000 saw logs; McLachlin Bros., 130,000; Buell, Hurdman & Co., 30,000; Perley & Pattee, 20,000; W. Mackay, 2,500 pieces square timber; Perley & Pattee, 1,500 pieces timber. The majority of Booth's logs were of the two year old cut, the high water being favorable for this season's drive.

INDIFFERENT LENGTHS.

The Export Lumber Company will make considerable shipments this year to South America.

The old Perley & Pattee mill, which has been entirely modernized by J. R. Booth, has commenced sawing. About 150 men are employed.

Hale & Booth have purchased a Lake Huron limit of Francis & Carswell, the consideration being about \$25,000. The limit covers a territory of 25 miles, and has never been worked.

The new mill of Gilmour & Hughson, at Hull Point, has commenced operations, and takes its position as one of the finest mills in these parts. The sawing capacity is over 200,000 feet of lumber per day. The dimensions of the mill are 80 x 160. The machinery equipment is very superior.

Shipping from W. C. Edwards' New Edinburgh mill began the early part of the month. The barges as loaded will go down to Montreal. The shipping trade from this mill will, it is expected, continue steadily for the rest of the season. The first part of the year's cut was done for the Sheppard & Morse Lumber Company.

Steps have been taken to secure incorporation and letters patent of a company which proposes to engage in the manufacture of stained imitation of walnut wood. The concern will be called "The American Hardwood Company" (limited): Ottawa will be the headquarters and the proposed capital is \$100,000. These are the promoters: Henrich B. Toobe, Hull, Eng.; Frederick Cerkel, Hector McRae, Peter McRae, and Frederick W. Powell, of Ottawa.

The last of the Moore Lumber Company's timber has reached here. These are 171 cribs and the crew numbers about 70, mostly French Canadians and Indians, and all speak both French and English tolerably well. A swarthy pilot asked as to what he did in winter, said "he did nothing but cut wood for his fire—work six months and stay at home six months. He never go to shanty—only run the timber." And the man seemed happy and contented, but doubtless his family cares are not numerous.

The amount of timber which has been cut on the Quebec side of the river during the past winter and has already gone through the Chaudiere slides this season is as follows: Sheppard & Morse Co., 100 cribs, or 2,382 pieces cut on their Kippewa limits. R. H. Klock, 186 cribs or 4,343 pieces from Bear Creek. McCracken & Boyle, two rafts or 6,845 pieces in all. Francis & Carswell raft from the Magnissippi river consisting of 147 cribs or 3,843 pieces. This very nearly, but does not quite, complete the rafts yet to go over the slides.

A considerable part of the square and waxy pine, of the Moore Lumber Company, that has been passing down the

Chats and Ottawa, has travelled a distance of 425 miles. With the exception of one raft belonging to Klock Bros., this is the greatest distance yet reached by Ottawa lumbermen. All of this timber was taken from a limit opened up by the late David Moore, the haul being short, from two to five miles only. The towing and floating of the timber began on the 9th May and on the 9th August the last crib had reached Ottawa; and then three or four weeks to Quebec, will make a four month's drive, probably the longest on the Ottawa record in recent years.

OTTAWA, Can., Aug. 25, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

EVER on the watch for fresh fields to conquer the lumbermen of the province are hopeful of new possibilities for lumber in the favor that is accorded what is known as yellow cedar lumber for decorating purposes. Yellow cedar, it is said, is also an excellent wood for carving. This wood is not very plentiful. There is, however, a moderate supply in northern British Columbia.

Some interest is also attached to a recent report of Prof. Fiebing, of Milwaukee, the leading leather trade chemist of the United States. He has reported that he finds on analysis that Washington hemlock bark possesses no less than 20.1 per cent. and spruce bark 18.9 per cent. of tannin; whilst fir bark has but 6.2 per cent., but is, nevertheless, peculiarly valuable for the reasons stated below. Mr. Fiebing says: "I have never before analyzed bark anywhere near so rich in tannin as this, the average hemlock bark not running over 10 per cent. tannin. Spruce bark seems quite as rich in tannin value as your hemlock, and if the available supply is large enough, can certainly be economically utilized. The richness of your bark in tannin properties is astounding and unprecedented."

British Columbia lumbermen argue that in view of the general scarcity of bark for tannin uses in the east that they may expect in the early future to make a large and profitable use of their spruce, fir and hemlock bark. Considering the general resemblance of British Columbia conditions to those of Washington state they think there is ground, in the light of Mr. Fiebing's report, for this hope.

A SOLID TRAIN OF SHINGLES.

The large consignment of shingles, representing really a solid train of shingles, that was shipped recently from Vancouver to Eastern Ontario, by H. H. Spicer & Co., is a significant event in the lumber history of this province. The consignment consisted of about 2,500,000 shingles, requiring about 450 cords of shingle bolts. Messrs. Spicer & Co. were one of the first to introduce Coast cedar shingles into Ontario, and in the face of the depressed condition of the shingle market they congratulate themselves on having developed a satisfactory and growing trade.

COAST CHIPS.

A ship is expected here about the end of this month to load lumber for Australia.

Shipments of finished goods are now being sent to Australia by the steamers of the new line.

Reports from South America are more favorable, and it is to be hoped trade with that country will soon be revived.

The demand for salmon boxes keeps the mills very busy. Their orders are larger for these goods than they have ever been.

A rumor is current here that a new sawmill will be built at Port Moody by Westminster, Victoria and English capitalists. I am not inclined to put much faith in the report, but trust it may be true and that building will shortly begin.

The mill and privileges of the Buse Milling Company, Vancouver, which is in financial straits, is to be sold under a mortgage. The mortgage is said to be for \$26,000, and this amount is not likely to be realized. There are several judgments and some of the machinery is not paid for. The firm is composed of Ernest Buse and John G. Bugbee.

A novel industrial effort bearing an important social aspect is reported from the North, where the Rev. J. B. McCullough, a Church of England missionary, has, with the aid of subscriptions from England, started a small sawmill at Aiyansh. After enough lumber has been sawn to erect a church and mission buildings, the mill will be turned over to the Indians now employed in the industry.

The new match factory on Lulu Island, New Westminster, has made a start. The initial capacity of the factory is 4,000,000 matches daily and several hundred thousand are now being turned out daily towards meeting a demand, which in this Province alone is estimated at 2,000,000 a day. The wood used is British Columbia spruce which burns as well as the cedar used in the California factories, and the labor mostly Chinese.

The British ship Earl of Duncorn, which cleared from San Francisco for Royal Roads, B.C., and instead went to Port Townsend, has been fined \$100 for having voyaged between two coastwise points. The vessel was under charter to load lumber in British Columbia for Australia, but one of the Puget Sound mills was offered the charter provided the vessel could be intercepted outside of Cape Flattery and taken to Port Townsend, which was done.

NEW WESTMINSTER, B.C., Aug. 22, 1893.

NEW BRUNSWICK LETTER.

[Regular Correspondence CANADA LUMBERMAN.]

TRADE with the American markets is showing a very decided shrinkage as a result of the monetary stringency across the border. Shipments of lumber to the British markets evidence some improvement.

The mill of Thos. Burns, at Kingston, recently destroyed by fire, will be rebuilt.

Laths are evidently in large demand in New York, as many as eight million being shipped from here in one week against three millions to all other American ports.

F. Tufts & Co., of this city, who handled over 20,000,000 feet of deals last year, expect to handle over 30,000,000 feet this year. The price paid is about 25 cents a thousand higher than last year.

The Maine capitalists, who purchased a tract of timber land at Keswick, York County, which was supposed to be no good, have cleared this season already sufficient timber to enable them to ship over 1,200,000 maple last blocks to the United States markets.

The Tobique Valley Railway, 28 miles long, which extends from Perth, on the C.P.R., to Plaster Rock, or the celebrated Tobique gypsum deposits, and which was opened during the present month, enters a section of the province, that is admittedly the best district available for the supplying of hemlock bark- cedar, spruce and hardwood.

Currency is given to a rumor that the larger part of the timber on the Swinny pine limit on the Tracadie river, has been destroyed by fire. The limit is owned by a syndicate of lumbermen, of Bangor, Me., and embraces 7,750 acres. The statement is further made that the fire had reached to an adjoining tract of Crown lands, leased by F. E. Winslow, Hon. J. B. Snowball and K. F. Burns, M.P. Definite particulars have not been received at this writing owing to the difficulty of telegraphic communication.

From the port of St. John last week W. M. Mackay shipped 666,047 feet of deals and battens and 25,689 feet of ends to Dundalk; and to Liverpool, 1,670,266 feet of deals and battens, and 131,171 feet of scantling and 142,916 ends. To Fleetwood, Alex. Gibson shipped 1,655,698 feet of deals and battens, 114,011 feet of scantling and ends; and to Drogheda, 354,299 feet of deals and battens and 17,462 ends. Thus the week's total to British ports is nearly 5,000,000 feet. From the port of Pugwash, N.S., there has been shipped to British ports since July 1 almost 9,000,000 feet of lumber.

ST. JOHN, N.B., Aug. 19, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THIS is not the time when the statement of the alarmist should be given any encouragement. The wise business man keeps a cool head and carefully calculates all probabilities. It is from men who view matters in this prudent light that we get the statement that not in thirty years in Saginaw has anything occurred to equal the present business collapse. I now quote the words of Mr. L. P. Mason who has been in the lumber trade here for 30 years. He said he was not buying a board; that lumber, which people 60 days ago would fall over one another to buy, hadn't a friend at present.

This view is not confined to Mr. Mason, nor to Saginaw alone. The piling docks are being uncomfortably crowded and the only source of relief is likely to be found in a shutting down of the mills and curtailment of the cut.

Mill men at Marinette are likely to close down at an early day, if for no other reason than the one that they experience great difficulty in handling their finances so as to permit of the large outlay necessary to a continuous running of the mills.

Of course everyone is hoping that now that Congress has got down to business that the financial stringency will show signs of relaxing and the heavy strain of holding on, that is commencing to tell on the mercantile community, will not be suffered to continue until, with some at least, the break will come. Not any serious trouble will occur if this relief is forthcoming, for lumbermen are cheerful and this cheerfulness is based on a knowledge that lumber is all right and that the present depression has not arisen out of any weakness in the lumber trade itself.

BITS OF LUMBER.

Forest fires have been raging along the lines of the Milwaukee and Northern and the Chicago and Northwestern railways north of Menominee.

The firm of C. K. Eddy & Sons, whose operations extend to Canada, has become incorporated with a capital stock of \$200,000. This firm is just now engaged in cutting a raft of 3,000,000 logs from Canada.

The piling ground of the Marinette sawmill yards is being severely tested owing to the shrinkage in shipments of lumber. Up to date the shipments of lumber from Marinette port have been 108,000,000 feet, which is about 40,000,000 less than at the same date last season.

A raft of 26,000 logs reached Alpena from the Georgian bay the early part of the month. F. W. Gilchrist took 14,000 of these and Albert Pack 12,000. Shipments of lumber from Alpena are not up to last year. For July the figures were 57,000,000 feet against 82,000,000 feet in July, 1892.

SAGINAW, MICH., Aug. 26, 1893.

PERSONAL.

E. E. Goddard, a prominent lumberman, of Saginaw, Mich., is dead.

William Pinchbeck, a well-known rancher and mill-owner, of William's Lake, B.C., is dead.

Mr. R. A. Ralph, a manager of the W. C. Edwards Lumber Co., has reached Ottawa, after having spent eleven months in the wilderness.

The LUMBERMAN was pleased to receive a call from James Dollar, of San Rafael, Cal., and recently ex-mayor and prominent lumberman, of Bracebridge, Ont.

Mr. John White, manager of the Toronto Lumber and Mining Company, which has mills at Sydney, B.C., has been spending a short time in the east arranging for machinery for a new sawmill at Edmonton, N.W.T.

Mr. Hugh McCormick, late of British Columbia, has transferred his services to Gilmour & Co., of Trenton, Ont. He is placed in charge of men working on the new limits of this company in the Georgian bay district.

Mr. Peter McArthur, of McArthur Bros., timber merchants, Toronto, and who has resided at Saginaw, Mich., for 26 years, has removed to Detroit. His business of late years has been removed largely from Saginaw. The firm owns large tracts of land in Canada and operates here, as well as in Michigan and Wisconsin. It is doubtless the largest timber firm engaged in the foreign trade in the country.

Premier Gladstone, the G. O. M., of Great Britain, has sent to the World's Fair, at Chicago, one of the axes which he used in felling trees at Hawarden castle. The axe is a gift to the Timber Trade's Association, of the United States. This is said by the Liverpool Timber News to be the only axe Mr. Gladstone has ever given away and that it is a very fine one, sharp and heavy, with an ash handle well worn by the hands of the Great English Premier.

Mr. B. T. Bayles, senior member of a lumber firm at Stoneybrook, Long Island, N.Y., died on the steamer Chicora on 20th ult., while returning from Toronto. He was looking out of one of the cabin windows with a friend watching an approaching storm, when suddenly he fell into his friend's arms unconscious with the remark, "Thank God I have written to my wife." Mr. Bayles was 64 years old. A wife, son and daughter survive him.

Mr. Robert Cunningham, of Pt. Essington, B.C., was married recently to Florence Bicknel, of Coventry, Eng. The ceremony was performed by Rev. Charles Quinney, the bride's uncle. Miss Bicknel and her younger sister are orphans and were brought out to this country by a friend some years ago. Mr. Cunningham came to the Pacific Coast as a missionary, twenty-seven years ago, but soon embarked in business, and from small beginnings is now proprietor of canneries, steamboats, hotel and sawmill, in short he is the owner of most of Essington, besides being a large shareholder in the C. P. Navigation company.

Universal sympathy will go out to Mr. J. B. Miller, president of the Parry Sound Lumber Company, in the loss of his estimable wife and his son, Clauson, by drowning at Sloop island, two miles from Parry Sound, on Friday, August 25th. Mrs. Miller only went to Parry Sound three weeks ago to spend the remainder of the summer. The boys were in bathing, and Clauson, aged 9 years, got beyond his depth. The mother jumped into the water to rescue him and both were drowned. Mrs. Miller was a daughter of the late Mr. Hunter, of the firm of Hunter, Rose & Co., publishers, Toronto. Mr. Miller was absent from Parry Sound the day of the accident, but returned next day.

THE NEWS.

CANADA.

—The new planing mill of C. C. Baldwin, of Pt. Credit, Ont., is running.

—McKechnie Bros.' new sawmill at Glenroaden, Ont., is finished and running.

—Robertson & McCallum, of Mulbay, Que., are shipping lumber in large quantities and at remunerative prices to Barbadoes.

—King Brothers, Grand Pabos, Que., have loaded several vessels of lumber this season for France and England.

—A drive of logs numbering 1,700,000 is coming down the Otonabee for the Rathbun Co.

—The Rathbun Co., of Deseronto, Ont., shipped per the Damarra, for Great Britain, 900 doors and other manufactured lumber.

—B. Clemens, of Toronto, has purchased 8,000 acres of poplar timber land in Grundy County, Southern States. He will begin sawing within the next month.

—The Crown Lands Commissioner for Quebec has been collecting arrears of timber dues, which his predecessor had neglected. Some \$90,000 has been collected.

—The auction sale of timber limits in the Georgian Bay announced by the Georgian Bay Consolidated Lumber Co., to have taken place in August, has been postponed to the fall.

—A raft of 140,000 feet of deals belonging to Chas. Bragg, of River Phillip, N.S., went ashore in Pugwash harbor a few weeks ago. Many of the deals were lost by being blown out to sea.

—The creditors of Brosseau & Tremblay, sash and door factory, Montreal, Que., are considering an offer of 50c. on the dollar, 4, 8 and 12 months, unsecured. Liabilities probably \$40,000.

—It is estimated that the shipping trade at Quebec has declined this year nearly one-half. The shrinkage in the square timber trade of Great Britain is attributed as one main reason of the trouble.

—Shipping at Honora, Ont., is brisk. About 100,000 pieces of cedar have already been sent from here to Chicago, Cleveland, Tonawanda, and other United States points, and there are about 50,000 pieces yet to be shipped.

—The Lachute (Que.) sawmills have passed into the possession of W. J. Simpson and J. W. Boyd, who intend to repair and start both mills. The price paid the sheriff for the property was \$11,900.

—The people in the north of Frontenac and Addington are disposed to blame the lumbermen for damming up the inland lakes so that fish are unable to reach certain points to spawn. A petition is being circulated to be forwarded to Ottawa asking that the evil be remedied.

—In referring to the business of the Sanderson Company in the August LUMBERMAN the types located them at Brandon, Man. Their place of business is Prince Albert, N.W.T. The only lumber mills at Brandon are those owned and operated with marked success by Mr. J. A. Christie.

—A Campbellford (Ont.) correspondent reports shingle trade dull, and that shingles are now being sold at a loss. As a consequence shingle men say they will not get out any lumber for next season. David Richards, who has about completed a new steam mill for the manufacture of clapboards and shingles will not run it this season.

FIRES AND CASUALTIES.

FIRES.

Davidson & Sons, Halifax, N.S., have suffered a loss of \$3,000 by fire.

McRae & Powell's sawmill, at Madawaska, Ont., was burned on 15th ult. Loss, \$4,000.

A fire at Moncton, N.B., destroyed about sixty thousand feet of Southern pine lumber in the I. C. R. yard. Loss, \$2,000.

Timber and other property amounting to £180,000 were destroyed by fire in a timber yard adjoining the Mersey docks, near Liverpool, Eng., on 6th Aug.

J. W. Green & Sons' sawmill, Kingsville, Ont., was destroyed by fire on the 15th ult., together with 150 cords of wood. Loss over \$2,000; insurance \$400.

The sawmills of McRae Bros., of Ottawa, which are located at Calalogie, Ont., were destroyed by fire Aug. 14. Loss about \$12,000, covered by insurance. The mill will be rebuilt at once.

Matchwood, a little town of 200 inhabitants on the Duluth, South Shore and Atlantic railway, was almost entirely wiped out by fire on 15th Aug. The flames crept in from the burning forests near by.

A large lumber camp, out from Bradford, Pa., two miles east from the Kingua bridge, on the Erie R. R., was seriously injured by fire the early part of August. Kane's big sawmill was completely destroyed. The loss is estimated at \$100,000.

A fire at Ottawa on 12th ult., consumed \$5,000 worth of lumber owned by the Rathbun Co. Fully insured. While this fire was raging the lumber piles belonging to E. B. Eddy Co., near Hurdman's mill, were also burnt. Loss about \$5,000.

A sawmill at Turner's station, owned by Sewers & Thompson, of Teeswater, Ont., and leased to J. A. McArthur, was totally destroyed by fire three weeks ago. About 70,000 feet of maple lumber for flooring and 35,000 feet of hemlock all ready for loading on the cars were destroyed. Loss, \$4,000; no insurance.

The planing mill of the Safety Bay Lumber company at Norwood, Ont., was destroyed by fire the early part of last month. The fire was confined to the mill and some lumber around it. A railway car in a siding, partly loaded with lumber, was destroyed. The estimated value of the mill and machinery was about \$7,000; insurance on same, \$3,500. The lumber in the car, about 9,000 feet, and around the platform 15,000 to 20,000 feet was destroyed; no insurance.

CASUALTIES.

A boy named Athier had his hand badly crushed in the McLaren mill, Ottawa, a week ago.

A lumber worker named Wm. Kavanagh, who came from Michigan, was drowned near Dunchurch, Muskoka, on 21st ult.

Robert Easton caught his right arm in a saw at Ford's sawmill, Glenmorris, Ont., and had it cut off above the wrist.

Robt. Reid, of Hepworth, Ont., sawmill proprietor, was choked to death while eating his noon-day meal a few days ago.

Sam. Bromley, of the Pembroke Lumber Co.'s mills, had his finger badly crushed while working at the knife sharpening machine.

At Trout Creek, near Bracebridge, Ont., Robert Washburn was putting a belt on a pulley in a sawmill when he got caught and killed instantly.

A young lad, son of Daniel Cushion, of Peterboro', Ont., lost four fingers while at work on a shingle machine at the Dickson Company's mill.

A young man had his arm badly bruised in Edward's mill, New Edinburgh, Ont. A large piece of wood flew from the slash table and narrowly missed his head.

Two young men named O'Connor and Ducairo, of Ottawa, employees of the Buell, Hurdman & Co.'s mill, received ugly wounds by being struck by a piece of edging sent flying from the saws.

W. H. Crowe, foreman at Dowling & Leighton's sash and door factory, Harriston, Ont., had his hand torn recently by one of the saws. This is one of several painful accidents he has suffered lately.

A hand of the Muskoka Mill and Lumber Co., named McIsaacs, was drowned a fortnight ago. He was on the way from Orillia to Muskoka Mills with others, and was under the influence of liquor.

A man named Boulanger, employed in one of the sawmills, in Arnprior, Ont., was nearly squeezed to death by being caught in a pulley. Fortunately a fellow employee seized an axe and chopped the belt in two, releasing him from his perilous position.

Two men were badly hurt on Yonge St., Toronto, a fortnight ago. They were in charge of two horses and a waggon loaded with lumber, on the top of which they were riding. The ropes tying the lumber to the cart gave way, throwing the men to the ground.

A ghastly fatality occurred at the new Gilmour & Hughson's mill, Hull Point, Ottawa Valley, a week ago, by which Wm. Marquell, an expert band sawyer, had his body literally cut in two pieces. A very large saw log was being flipped on the carriage when a knot sticking out on it caught the endless chain which drags the logs into the mill from the pond below. The log was given a jerk forward and struck with considerable force against the unfortunate sawyer's right shoulder. He fell forward on his hands against the moving carriage and the saw cut his arm off below the elbow. It was done in a moment, and the severed arm let his body fall on the moving carriage. He caught the band saw and the rapidly moving strip of steel ripped him in two before a word could be said or any action taken to prevent the accident.

TRADE REVIEW.

Office of CANADA LUMBERMAN, August 31, 1893.

THE GENERAL SURVEY.

WE have taken occasion in our editorial columns to deal at some length with the financial condition of the lumber business at the present moment.

Coming down from general conditions to something more specific it may be remarked that local lumber trade, in Ontario or Toronto, is sympathetically dull with the general situation.

Among the mills there is not the life and stir of the earlier part of the season. The reason is found in the depression across the line; and the season will close with a larger stock of lumber on the piling grounds than had been expected.

The news from New Brunswick is of a like kind to that in Ontario, business with the American markets being restricted. In Farnworth & Jardine's wood circular, this remark is made of New Brunswick and Nova Scotia spruce and pine deals in Great Britain:

UNITED STATES.

The lumber trade in the United States is undergoing a severe test at the present time, a result of the monetary stringency that has taken possession of our neighbors to the south.

FOREIGN.

Advices from Great Britain do not give much hope of improvement in the lumber trade across the water. Farnworth & Jardine's wood circular of current date, from Liverpool, Eng., says: "Business during the month has on the whole been quiet; imports generally have been sufficient for the dragging demand; values although steady show but little improvement, and stocks of all articles are ample.

come forward from Canada freely, but deliveries have been disappointing, values are unchanged and the stock is sufficient. Red pine is seldom enquired for, and the stock is too heavy. Oak has been imported freely both from Canada and the United States, the demand has been dull and only first-class wood is in request; the stock (which to a large extent consists of United States wood) is much too heavy. Elm is in fair request, prices are steady and the stock is moderate. Ash has come forward freely, it moves off slowly, but prices are steady. Pine deals have been imported very moderately, and the bulk of the arrivals have gone into consumption; the stock, however, is still sufficient, and values have been difficult to maintain." Denny, Mott & Dickson, London, Eng., say in their monthly circular: "The recent fresh importations of Canadian timber are for the most part of satisfactory quality; waney pine of prime quality and good average lengths is in fair demand at fully previous rates. The stocks of square pine, oak and elm, are ample, at the present moderate rate of demand, for several months' consumption." Of the general situation they say: "There has been an increasingly hopeful feeling in the trade generally during the past month, and without our being able yet to chronicle any important advance in prices, we consider that the general tendency is certainly in an upward direction, and that the tone of the market is healthier than during many months past. Whether the otherwise probable improvement is to be again deferred in consequence of strikes or other extraneous troubles, we cannot pretend to foresee, but the factors of the situation germane to the trade itself seem all of a favorable nature." Figures of the value of sawed lumber imported into England from Canada for the half year ending June 30 show a falling off from £456,431 to £356,146, as compared with the corresponding period of last year, while in the value of hewed timber there was a drop from £79,055 to £44,580. Australian trade is dull beyond any immediate redemption. A report comes from the West Indies that there is a good, though somewhat limited, market there for white pine and spruce. Conditions are brighter in South America.

TORONTO, ONT.

TORONTO, August 31, 1893.

CAR OR CARGO LOTS.

Table listing various lumber items and their prices, including 1x4 in. cut up and better, 1x10 and 12 dressing and better, 1x10 and 12 mill run, etc.

YARD QUOTATIONS.

Table listing yard quotations for various lumber items, including Mill cull boards and scantling, Shipping cull boards, Scantling and joist, etc.

HARDWOODS—PER M. FEET CAR LOTS.

Table listing hardwood prices per M. feet car lots, including Ash, white, black, Birch, sq., red, yellow, Basswood, Butternut, Chestnut, Cherry, Elm, soft, rock, Hickory, Maple, Oak, red, p'n, white, quart'd, Walnut, Whitewood.

OTTAWA, ONT.

OTTAWA, August 31, 1893.

Table listing Ottawa lumber prices, including Pine, good sidings, Pine, good strips, Pine, good shorts, etc.

QUEBEC, QUE.

QUEBEC, August 31, 1893.

WHITE PINE—IN THE RAFT.

Table listing white pine prices in the raft, including For inferior and ordinary according to average, quality etc., For fair average quality, etc.

RED PINE—IN THE RAFT.

Table listing red pine prices in the raft, including Measured off, according to average and quality, In shipping order, 35 to 45 feet.

OAK—MICHIGAN AND OHIO.

Table listing oak prices, including By the dram, according to average and quality.

ELM.

Table listing elm prices, including By the dram, according to average and quality, 45 to 50 feet, 30 to 35 feet.

ASH.

Table listing ash prices, including 14 inches and up, according to average and quality.

BIRCH.

Table listing birch prices, including 16 inch average, according to average and quality.

TAMARAC.

Table listing tamarac prices, including Square, according to size and quality, Flatted.

STAVES.

Table listing staves prices, including Merchantable Pipe, according to qual. and sp'ct'n—nominal, W. O. Puncture, Merchantable, according to quality.

Table listing deals prices, including Bright, according to mill specification, Bright spruce, according to mill specification.

BOSTON, MASS.

BOSTON, Mass., Aug. 31.—The lumber trade of the Hub is decidedly dull.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing eastern pine prices, including Ordinary planed boards, Coarse No. 5, Refuse, etc.

WESTERN PINE—BY CAR LOAD.

Table listing western pine prices by car load, including Uppers, 1 in., 1 1/2 and 2 in., 3 and 4 in., etc.

SPRUCE—BY CARGO.

Table listing spruce prices by cargo, including Scantling and plank, random cargoes, Yard orders, ordinary, etc.

LATH.

Table listing lath prices, including Spruce by cargo.

SHINGLES.

Table listing shingle prices, including Eastern sawed cedar, extra, 2nd, 3rd, extra No. 1, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., Aug. 31.—Nothing very bright can be said of lumber here any more than at other points.

WHITE PINE.

Table listing white pine prices, including Three uppers, 1 1/4, 1 1/2 and 2 in., Pickings, No. 1, cutting up, etc.

SIDING.

Table listing siding prices, including 1 in siding, cutting up, Red Oak, White, Basswood, No. 1 and 2, Cherry, No. 1 and 2, White ash, 1 and 2, Black ash, 1 and 2.

IX12 INCH.

Table listing ix12 inch prices, including 12 and 16 feet, mill run, 12 and 16 feet, No. 1 and 2, barn boards, 12 and 16 feet, dressing and better, 12 and 16 feet, No. 2 culls.

IX10 INCH.

Table listing ix10 inch prices, including 12 and 13 feet, mill run, mill culls out, 12 and 13 feet, dressing and better, ix10, 14 to 16 barn boards, 12 and 13 feet, No. 1 culls, 12 and 13 feet, No. 2 culls, 14 to 16 feet, mill run mill culls out, 14 to 16 feet, dressing and better, 14 to 16 feet, No. 1 culls, 14 to 16 feet, No. 2 culls, 10 to 13 feet, No. 3 culls.

IX10 INCHES.

Table listing ix10 inch prices, including Mill run, mill culls out, Dressing and better.

IX4 INCHES.

Table listing ix4 inch prices, including Mill run, mill culls out, Dressing and better.

Table listing lumber prices for 6, 7 or 8 mill run, mill culls out, 6, 7 or 8, drsg and better, etc. Includes sections for SHINGLES and LATH.

Table listing lumber prices for XXX 18 in. Climax, XXX Saginaw, XX Climax, 18 in. 4 in. c. b., etc. Includes sections for SHINGLES and LATH.

NEW YORK CITY.

NEW YORK, Aug. 31.—Perfect dullness overshadows the lumber market of the metropolis. Buyers are born of necessity only.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Aug. 31.—The closing days of the month have witnessed some acquisition of strength. This is due, doubtless, to the improved feeling in financial circles.

Table listing lumber prices for Upr's, 1, 1 1/2, 1 1/2 and 2 in., 2 1/2 and 3 in., etc. Includes sections for WHITE PINE and BOX.

Table listing lumber prices for Uppers, 1 in., 1 1/2 and 2 in., 3 and 4 in., etc. Includes sections for WHITE PINE—WESTERN GRADES and BOX.

NEWS AND NOTES.

Peter Shaw, of Norvar, Ont., owner of sawmill, died August 23.

The shingle mill of John Manion, West Luther, Ont., burned; loss \$500.

Genelle Bros., sawmill, Tappin Siding, B.C., have dissolved; J. Genelle continues.

A young man named Gideon Kelville had his leg badly crushed in Booth's new mill, Ottawa, Ont., a week ago.

A new field for timber has been found, says an English trade paper, and it is somewhere up in the Russian domains of Siberia.

It is stated that Mr. Joseph Cartier, a rich Canadian of Ludington, Mich., is about to purchase the extensive lumber mills now belonging to Hon. Louis Tourville, at Louiseville, Quebec.

Mr. Alexander Bryce, a partner of the late firm of Bryce Bros., lumbermen, Toronto, died at Fort Worth, Texas, the latter part of August.

John Hann & Son's mill and lumber yard, at Ten Mile Lake, near Rosseau, Ont., was destroyed by fire on 28th August. Loss about \$3,000; no insurance.

Michael Tierney, an Indian, was killed and eight others badly injured at the Vermillion river, near Pembroke, Ont., through the breaking of a boom of logs.

An incipient fire occurred among the lumber piles of the Export Lumber Co., and Cox, of Liverpool, Eng., in Ottawa, a few days ago. No serious harm was done.

Vincent Deehine, employed as a river driver by Mickle, Dymnt & Co., was drowned in the Severn a week ago. He fell off a boom and being unable to swim drowned before assistance reached him.

At Rat Portage, Ont., Andrew Clegg, a mill-wright in Mather's lumber mill, while engaged oiling the machinery, was caught between two cog wheels and smashed to pieces instantly.

TRADE NOTES.

Mr. F. J. Drake, shingle machine manufacturer, Belleville, Ont., regrets that he will not be able to make a display of his machinery at the Industrial Exhibition, as had been announced, being so crowded with orders that these demand all his time and attention.

A half-page advertisement of the Eastman Lumber Company, Eastman, Que., in this month's LUMBERMAN, will be of interest to all engaged in the manufacture of lumber.

ALBANY, N.Y.

ALBANY, N.Y., Aug. 31.—Dealers have pretty well abandoned the hope of any improvement in trade this season. It is now too near a close. Almost absolute stagnation describes present trade.

Table listing lumber prices for 2 1/2 in. and up, good, 4ths, Selects, Pickings, etc. Includes sections for PINE, SHINGLES, and LATH.

SAGINAW, MICH.

SAGINAW, Mich., Aug. 31.—Trade is dull; the whole situation is stated when we say that much. Holders of stocks are holding them, customers being few.

Table listing lumber prices for Uppers, 1, 1 1/2 and 1 1/2 in., 2 in., etc. Includes sections for FINISHING LUMBER—ROUGH, SIDING, and TIMBER, JOIST AND SCANTLING.

STEAM PUMPS



Duplex AND SINGLE Steam AND POWER Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US



NORTHEY M'FG CO. LIMITED TORONTO - ONT.

A BAND SAW IN HIS MOUTH.

IT is a fortunate thing for man and the rest of the animal kingdom, naturalists have told us, that no large wild animal has a mouth constructed with the devouring apparatus built on the plan of the insignificant-looking snail's mouth, for that animal could out-devour anything that lives. The snail itself is such an entirely unpleasant, not to say loathsome creature to handle, that few amateur naturalists care to bother with it, but by neglecting the snail they miss studying one of the most interesting objects that comes under their observation.

Anyone who has noticed a snail feeding on a leaf must have wondered how such a soft, flabby, slimy animal, can make such a sharp and clean-cut incision in the leaf, leaving an edge as smooth and straight as if it had been cut with a knife. That is due to the peculiar and formidable mouth he has. The snail eats with his tongue and the roof of his mouth. The tongue is a ribbon which the snail keeps in a coil in his mouth. This tongue is in reality a band saw, with the teeth on the surface instead of on the edge. The teeth are so small that as many as thirty thousand of them have been found on one snail's tongue. They are exceedingly sharp, and only a few of them are used at a time. Not exactly only a few of them, but a few of them comparatively, for the snail will probably have four thousand or five thousand of them in use at once. He does this by means of his coiled tongue. He can uncoil as much of this as he chooses, and the uncoiled part he brings into service. The roof of his mouth is as hard as bone. He grasps the leaf between his tongue and that hard substance and, rasping away with his tongue, saws through the toughest leaf with ease, always leaving the edge smooth and straight.

By use the teeth wear off or become dulled. When the snail finds that his tool is becoming blunted, he uncoils another section and works that out until he has come to the end of the coil. Then he coils the tongue up again and is ready to start in new, for while he has been using the latter portion of the ribbon, the teeth have grown in again in the idle portions—the saw has been filed and reset, so to speak—and while he is using them, the teeth in the back part of the coil are renewed. So I think I am right in saying that if any large beast of prey were fitted with such a devouring apparatus as the snail has, it would go hard with the rest of the animal kingdom.

CUTTING OF TIMBER.

DURABILITY of timber is increased by timely cutting. Even white birch cut in July and August in full leaf will remain sound for two years or more. Cut in March it will hardly last through the season. White birch will make fairly durable bean poles if cut in midsummer. Dr. Jabez Fisher, of Massachusetts's grape farm, uses chestnut logs for trellis stakes, and contracts that the trees shall be cut in late summer when in full leaf. The stakes are also stronger. Water seasoned lumber is durable probably because the water washes out the destructive acids of the sap. Logs cut in winter that cannot be sawed until there is danger of decay and damage from insects are safely preserved if thrown in the mill pond.

NO SMOKE.

A RECENT German invention for the purpose of preventing smoke when coal is used as fuel consists in reducing the coal to a powder and feeding this to the furnace with an air blast. The coal so prepared ignites at once upon entering the furnace and gives an intense flame. The dust does not fail, but floats in the furnace chamber and is entirely consumed. There are no ashes, and it is said there is no smoke from using coal in this shape. The fire can be regulated the same as when oil is used, and it can be started or extinguished at pleasure.

PLENTY OF OAK.

OAK is sometimes referred to as a timber that will some day in the near future take rank as one of the scarce woods of the country. In the opinion of the Timberman, of Chicago, taking the oak family as a whole, it will always be in supply, as long as a man occupies North America. Oak is said to be about the most common timber that grows. In its various varieties it supplies about forty of the 420 species of wood in the United States, and it is probably only exceeded in amount by the cone bearing trees, which include such as the pine, hemlock, spruce, fir, etc. It is possible that if the exact figures were at hand, oak might even surpass these, for it grows almost everywhere that trees are found. Certain kinds are of particular value. White oak is the favorite of all and is being more rapidly cut away than others, though all varieties have their uses. Where exceptionally well located or of especially fine quality, it may have a higher price as standing timber, but its quality is so great and widely distributed that very high prices are not to be anticipated. The measure of its value on the market depends mainly on the cost of getting it to the mills and of manufacture. These will continue to be the chief elements in its cost for many years to come, and we apprehend this generation will not see the permanent price much higher than that which prevailed during last year.

ADVERTISING IN TRADE JOURNALS.

A PROMINENT and very successful manufacturer was recently asked why he did all his advertising through the leading trade journals and never sent circulars or put up posters, says Drainage Journal, and replied: "Men who do not read their trade papers and keep posted in their business are usually poor customers. If I sell them a good lot of machinery, they do not know how to use it, and report it a failure, or we have to run after them, lose time and money, to get them a going and make the sale stick. But those who read and are posted know how, and succeed. Such men would not read circulars if I were to mail circulars to them. They see my 'ad.' regularly in the trade paper and know that I have an established business, and when they want anything in my line, write me, and don't whine about prices, or what time they can get from others, but buy, try, and have no trouble, and pay the bill. Give me such a class of customers as I get by such judicious advertising all the time."

PLANNING BUILDINGS.

WHEN you are about to build, rebuild, enlarge or remodel your saw, lath, planing or shingle mill, or your sash, door and blind factory, or any other wood-working plant, don't go about it wrong end foremost. It is a wrong way to go about it by putting up a building of any sort or size, and then trying to force your outfit of machinery into the misshapen building. You begin wrong when you begin without a plan. First, lay out what capacity you need. Then arrange your machines so that you secure the best possible economy. When all this is done, complete the scheme by building a suitable cover for the plant. Ignorant owners go at it the other way. Instead of putting all the care and attention on the machines, transmission, boilers and engines, they put up a building first. Very naturally, they find their buildings of the wrong shape or size. They really give second place to what should have first place in their calculations. The result is an unsatisfactory plant.

YOU ARE INVITED.

The Magnolia Metal Company, which sells its metal all over the world, extends to its friends an invitation to visit its exhibit at the World's Fair; it can be found at Section No. 10, column E 53, where all people who are interested in the running of machinery with the least amount of friction are most welcome.

PILING SAP LUMBER.

THE location where lumber is piled, and its surroundings, have much to do, says Mr. W. B. Henry, in the Wood Worker, toward aiding or preventing stained lumber. Where it is piled on low, wet or damp ground, or in hollow places, or surrounded by tall buildings or dense growth of timber, where there is not free circulation of air, one may expect damage from sap-stain unless the greatest care be taken.

My experience and observation have been that one of the best methods to prevent sap-stain is to get the lumber cross-piled as soon as possible after it leaves the saw. The piling sticks, or the timbers upon which the lumber is to be cross-piled, should be raised high enough so that there may be a clear space of 18 to 24 inches between the ground and lumber.

In lumber 12 feet long there should be three of these cross-bearing timbers, and with good pitch to allow the free carrying off of water or evaporations from the lumber. A pile of lumber should never be allowed to sag in the middle, for in so doing it not only prevents the free carrying off of the moisture, but carries from both ends towards the middle, where congestion ensues and sap-stain results.

In the centre of each pile of lumber I always leave a space of 12 to 18 inches for an air space or chimney; the sides of this space are carried up from bottom to top with almost plumb-line precision, or at least as much so as the sides of the piles. The air beneath the pile finds this chimney to act as a funnel and escape-valve for the moisture beneath the piles, as well as in the lumber itself throughout the pile.

Narrow pieces or strips should be used for the lumber to rest upon in the building up of every layer in the pile. Strips from three to six inches in width is probably the best width, and if they are over, all the better.

The widest board or plank should be put at the edge of the pile or the edge of the chimney, and there should be sufficient space left between each board or plank—owing to the thickness and width of the lumber—so that they are not crowded too closely together, for the main object throughout is to give plenty of ventilation and free circulation of air.

When the pile is finished it should be well covered, and all the better if the lumber used for covering be at least two feet longer than that in the pile, so that the roof may carry the water beyond the ends of lumber piled. Other piles should not be allowed to be nearer than six feet, and better yet if eight feet distant.

With these things carefully carried out, one will seldom have much badly stained lumber, unless the conditions be unusually bad, or with kinds of timber with which I have never had much practical experience in handling. I have never used unslacked lime thrown under and around the piles of lumber during hot weather, but have been told by those who have used it that it is an excellent preventive of sap-staining. The lime doubtless absorbs or dries up the dampness of the ground, and to some extent the lumber, but unless the lumber be piled somewhat in the manner I have mentioned, I do not think lime of itself would keep the lumber bright.

Several years ago it was suggested to me that by piling the sap-side—that is, the side of the board or plank next to the bark or the outside of the log, always turned up, and the heart side turned down, that one would have little stained lumber. As no plausible scientific theory was advanced, or that I was slow to believe, I did not readily adopt it. But others who claimed to have tried it, assured me of the good results, and during one month in winter time, and one month in mid-summer I piled the grades of selects and fine common, two grades having the most sap in white pine lumber, one pile being careful to turn the sap side up, and in the next pile just as it came, whether sap side or heart side, then the next pile sap side up, and thus alternating in that manner.

The piles contained 12,000 to 16,000 feet, owing to the lengths of the lumber. There was, during all the time this lumber remained in pile, from 3,000,000 to 5,000,000 feet in the yard, so that the surrounding conditions were about the same.

This sap lumber was allowed to season until in good shipping condition, and then shipped out to fill orders as they came in. If there was not enough to fill an order from one pile, it would be taken from the next, but I could see no difference in the brightness of the sap between the one pile or the other, nor in the weight of the lumber.

There was no sap-stain in any of the lumber, and I attributed it more to the manner in which it was piled, in accordance with the method I had adopted, than to turning the sap side of the board up.

THE OLD AND THE NEW.

MACHINERY, says the Age of Steel, has so far changed conditions that in the planing mill, the furniture factory, the cabinet shop, and in all other kinds of wood-working plants, the differences between the old methods and the new are little less than revolutionary. The room for ingenuity has been eminently favorable to its development, the working of wood into artistic forms requiring a wide range of special apparatus, and insisting on devices that in an economical and practical sense had to keep pace with changing demands and conditions. The work done by some of these mechanical appliances is little less than phenomenal, involving the most intricate and diversified operations, and doing the same with a precision and accuracy unequalled by the most expert mechanic. To name any as distinct from the rest would seem to be an invidious comparison, it being enough in the general sense to say that in every specialty of wood-working the ingenuity in device is simply remarkable. In planers and moulding machines, in sawing and tenoning apparatus, in boring and mortising work, in lathes of all kinds, in scroll and band saws, in shaping, friezing, sand-papering and polishing contrivances; and, in fact, all the way from a hotel toothpick to the figure-head of a steamship, or the exquisite carvings that adorn the temple or the palace, the work of the brainless tool is supreme.

CATERPILLARS OF WOOD.

ONE of the queerest things found in New Zealand, Tasmania and other parts of Australasia, is the world-famous wooden caterpillar. This wonderful animal plant is a fungus, a sphaeria, which grows to a height of seven or eight inches above the ground, generally in a single stem, round and thickly covered with brown seed, the whole ending in a curved worm-like point. It is usually found growing at the roots of a particular tree, the "rata" of the natives.

When this singular plant is pulled up, its single root is found to be the exact counterpart of a large caterpillar, one from three to four inches long, and which although it preserves and exhibits every detail of such worms, dissection proves it to be only a woody, bulbous root. Intelligent persons of the countries named, as well as English, American and French naturalists who have been sent to report on this wonderful vegetable product, say that it is formed in the following unique and curious manner: A large species of moth feeds on the "rata" tree; the grub of this moth burrows in the ground; the seeds or spores of the sphaeria fungus find lodgment between the scales of the grub's neck, strike root and completely turn the interior of the creature into segments of solid wood.

In every case the shell or skin of the caterpillar is left intact, no small rootlets puncturing it at any point except at the eye, where hair-like roots protrude, giving the woody worm a very fierce expression.

3½ Cents a day—

That isn't much money, is it?

About twenty-five cents a week or so.

And a man must be pretty hard up if he hasn't that much to spend every week.

Times are hard, they say; but if they are hard now to your family and yourself, what will they be to your family without you?

That's worth thinking about.

We think that no man should be without life insurance when it can be had at such a low rate as 3½ cents a day from the Manufacturers' Life, Yonge Street, corner Colborne, Toronto.

Write to us and we will give you all particulars.

DONOGH & OLIVER



WHOLESALE DEALERS IN

LUMBER



OFFICE

Nos. 213, 214 and 215

Board of Trade Building

Toronto, Ont.

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail.	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	Wat., Gang and Band, Saw 400m,
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail.	Water, Gang, Circular, Saw 90m,
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Circular, 3m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Steam, Circular, 40m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 16m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	Stm., Band, Cir., S. 75m, Sh. 60m
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mills, Pine, Hem., Bl. Birch	Waubaushe mill, stm., 200m; Pt. Severn mill, water, 120m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail.	Steam, 2 Circular, 80m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	Steam, Circular, 6m
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail.	Steam, Cir., Saw 14m, Sh. 20m
Waubaushe, Ont.	Waubaushe	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Pine only.	Steam, Circular, 25m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail.	Steam, Circular, 4m
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, Circular, 25m
Collins Inlet, Ont.	Collins Inlet	Head Office, Strachan Ave., Toronto	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Steam, Circular, 4m
Comber, Ont.	Comber	Collins Inlet Lumber Co.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 25m
Glamis, Ont.	Pinkerton	Ainslie, J. S. & Bro.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Water, Band and Circular, 100m
Hamilton, Ont.	Hamilton	McIntyre, N. & A.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	Steam, Circular, 25m
Huntsville, Ont.	Huntsville	BRADLEY, MORRIS & REID CO.	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Band and Circular, 100m
Hamilton, Ont.	Huntsville and Katrine	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 40m
Keewatin, Ont.	Keewatin	Thomson, Robert & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular, 20m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Com.
Lakefield, Ont.	Lakefield	Keewatin Lumber & Mfg. Co.	Lumber, Wholesale and Retail	Stm., Cir., Gang and Band, 140m
Little Current, Ont.	Sudbury	Lakefield Lumber Mfg. Co.	Sawmill, Pine, Ash, Birch, Oak	Com.
Little Current, Ont.	Sudbury	Conlin, T. & J.	Lumber, Wholesale and Retail	Steam, Gang and Circular
London, Ont.	London	Howry, J. W. & Sons	Exp. and dlr. in Am. Hwds, made to specification	Steam, Circular and Gang, 60m
Longford Mills, Ont.	Longford	Gordon, James	Saw and Plan. Mill, Hemlock, Hardwds., Whol. Cherry, White Ash, Hardwoods, Wholesale	Steam, Circular and Band, 50m
Mount Forest, Ont.	Mount Forest	Longford Lumber Co.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 200m
Norman, Ont.	Norman	Greensides, W. S.	Lumber, Wholesale and Retail	Steam and Water, Circular, Portable and Stationery, 10m
Norman, Ont.	Norman	Cameron & Kennedy	Hardwoods, Shingles, Lath, Handles	Circular, Gang and Band, 180m
Louise, Ont.	Elmwood, G.T.R.	Minnesota & Ontario Lumber Co.	Lumber, Wholesale	Steam, Circular and Gang, 60m
Toronto, Ont.	Toronto	S. B. Wilson & Son	Lumber, Wholesale	Steam, Circular and Band, 50m
Toronto, Ont.	Toronto	Campbell, A. H. & Co.	Lumber, Wholesale	Steam, Circular, 200m
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Com.
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Steam and Water, Circular, Portable and Stationery, 10m
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Circular, Gang and Band, 180m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Steam, Circular and Gang, 60m
Toronto, Ont.	Toronto	DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail	Steam, Circular and Band, 50m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular, 200m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	2 Stm., 2 Wat., Band, Cir., 40m
Montreal, Que.	Montreal	Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 20m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	Steam, Gang and Circular
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 38m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Water, Circular and Gang, 200m
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

.... MANUFACTURERS OF

Charcoal Iron Gilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

CORRESPONDENCE SOLICITED

OAK TANNED BELTING

TORONTO 20 FRONT ST EAST TELEPHONE 475

THE J.C.M^cLAREN BELTING CO

MONTREAL

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-hand Boilers, Engines and General Machinery for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

- ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.
ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.
THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.
ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.
TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.
ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S MAKE.
TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.
ONE 6 1/2 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.
TWO 5 1/2 x 9 SLIDE-VALVE ENGINES, BECKETT'S MAKE.
ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.
ONE 15 H.P. ENGINE, English make.
ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.
ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.
MACHINERY:—
ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.
TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.
ONE GOLDIE & McCULLOCH THREE-SIDE moulder.
ONE ONE-SIDE MOULDER.
TWO 34-INCH WHEELS BAND SAWING machines.
ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.
ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.
ONE GOOD SHAPER.
SIX GOOD SAW TABLES.
ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.
ONE WOOD FRAME TENONER IN GOOD sbape.
TWO UPRIGHT SWING SHINGLE OR or heading machines, with jointers.
ONE ALMOST NEW GENUINE "BAILEY" gauge or bandle lathe, with countershaft.
ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.
FOUR DOWELL MACHINES.
ONE 20-INCH WATEROUS CHOPPER COMPLETE with double elevators, equal to new.
FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

THE NORTH SHORE NAVIGATION CO.

Royal Mail Line of Steamers

CITY OF MIDLAND CITY OF LONDON
... FAVORITE... ... MANITOU...

Running in connection with the G.T.R. and C.P.R., will sail during the season of 1893 as follows:

THE CITY OF MIDLAND AND THE CITY OF LONDON will leave Collingwood at 1.30 p.m. every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same day at 10.30 p.m., after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and stopping at all intermediate ports to Sault Ste. Marie. Returning leave the Soo at daylight, making railway connections at Wiarton, Owen Sound and Collingwood.

The FAVORITE will leave Collingwood Monday and Thursday, at 1.30 p.m. for Parry Sound, Byng Inlet, French River and Killarney, connecting there with line steamers for Sault Ste. Marie. Returning stop at French River, Byng Inlet and Midland, making connection there with steamer MANITOU for Parry Sound and G.T.R. for south and east, and at Collingwood with G.T.R. for Toronto and Hamilton.

Commencing Thursday, May 4th

The MANITOU will make regular trips from Penetanguishene, connecting with trains from the south only at Midland, every Monday, Wednesday, Thursday and Saturday on arrival of G.T.R. from all points south and east for Parry Sound, making connection there with the steamer FAVORITE for Byng Inlet, French River and Killarney, where the latter connects with the line steamers for the Soo.

For tickets and further information see folders, or apply to all agents of the G.T.R. and C.P.R., or to

C. E. STEPHENS, M. BURTON, Sec.-Treas., Collingwood, Mgr. Collingwood.

MILLERS' & MANUFACTURERS' INS. CO.

ESTABLISHED - 1885

32 Church Street, Toronto

The President, James Goldie, Esq., in moving the adoption of the report on the business of 1892, said: I have much pleasure in drawing your attention to the fact that this company has verified, in a marked degree, every expectation set forth in the original prospectus when organized in 1885.

Up to the present time the insurers with this company have made a saving, when compared with the current exacted rates, of \$91,004.20. And in addition thereto bonus dividends have been declared to continuing members amounting to \$21,522.72.

Besides achieving such result, we now also have, over all liabilities—including a re-insurance reserved (based on the Government standard of 50 per cent.—(50%), a cash surplus of 1.93 per cent. to the amount of risk in force.

Such results emphasize more strongly than any words I could add the very gratifying position this company has attained. I therefore, with this concise statement of facts, have much pleasure in moving the adoption of the report.

The report was adopted, and the retiring Directors unanimously re-elected. The Board of Directors is now constituted as follows: James Goldie, Guelph, president; W. H. Howland, Toronto, vice-president; H. N. Baird, Toronto; Wm. Bell, Guelph; Hugh McCulloch, Galt; S. Neelon, St. Catharines; George Pattinson, Preston; W. H. Story, Acton; J. L. Spink, Toronto; A. Watts, Brantford; W. Wilson, Toronto.

HUGH SCOTT, THOS. WALMSLEY, Mgr. and Sec'y. Treasurer

CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF THE LUMBERMAN'S DIRECTORY AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA: 1893

Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank:

Power, style and capacity of mill:
Class of manufacture:
Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank:

Wholesale or Retail: Class of stock handled:
Post Office: Shipping Point:

Owners of planing mills, sash, door and blind factories, will please fill in following blank:

Power and style:
Class of manufacture:
Post Office: Shipping Point:

(Signed) P.O.

Province:

Address all communications to

DIRECTORY DEPARTMENT, CANADA LUMBERMAN, TORONTO, ONT.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-quarter and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, 1 and 1 1/2, all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long. Address all particulars as to dryness, quality, quantity on band and price, to P.O. Box 2144, New York, N.Y.

35 CENTS

BUYS

FISHER'S GRAIN TABLES

192 PAGES

The book contains more valuable information and useful tables for Farmers, Millers, Traders and others than any similar book of its kind ever published, besides being a complete Ready Reckoner showing the value of articles of lbs. from one to 500; from a quarter of a cent to \$2.00. Also tables for Grain, Hay, Rent, Board, Wages, Interest, etc. Write for sample copy.

THE CANADIAN MILLER, Toronto, Ont.

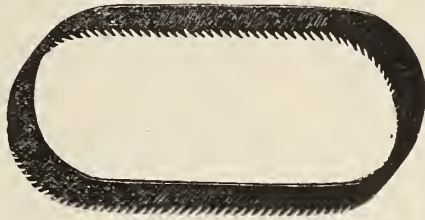
WHY BAND SAWS BREAK

SIXTEEN

REASONS,

AND HOW TO

AVOID THEM



Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

A book filled with valuable information on the care of band saws. Giving the reasons for breaking; analyzing each reason; giving instructions to dispense with the causes as laid down in each reason; and full details on filing and brazing. The proper styles of hammers to use are illustrated and described, and views of blades showing the blows of the different styles of hammers form an important part of the illustrations. Improper and unequal tension are then treated, and the manner of properly setting irregular teeth is described. In connection with the treatise is a history of the invention, manufacture and use of the saw from its origin to the present time. The work in whole makes an accumulation of information such as has never before been published.

The book is printed on fine paper, good clear type, and is handsomely and substantially bound in cloth. It will be sent to any address on receipt of the price, ONE DOLLAR.

Address— CANADA LUMBERMAN, Toronto, Ont.

EVERY LUMBERMAN WANTS IT

35 CENTS BUYS IT

Scribner's Lumber and Log Book

SAVES TIME SAVES MISTAKES SAVES MONEY

BRIMFUL OF EVERY-DAY, PRACTICAL INFORMATION

Address: THE CANADA LUMBERMAN, Toronto

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

WANTED

BASSWOOD LUMBER, BY CAR OR CARGO. Offers invited. Address "Baswood," care of CANADA LUMBERMAN.

COMMISSIONS

THE ADVERTISER CAN SECURE BIG prices for black ash, basswood, elm and maple in New York and surrounding markets, best of references given. Send lists of stock on hand. No shipment on consignment. Bona fide orders sent you before shipment.

Address "Commissions," care of CANADA LUMBERMAN.

RAILS FOR TRAMWAYS

NEW AND SECOND-HAND STEEL AND iron rails for tramways and logging lines, from 12 lbs. per yard and upwards; estimates given for complete outfit.

JOHN J. GARTSHORE, 49 Front St. West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for same in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with

I.C.L., care CANADA LUMBERMAN, Toronto.

FOR SALE

A HANDLE LATHE FOR MAKING FORK and rake handles.

Inch squares are cut out of slabs, piled one on top of the other in the machine, and it automatically takes the lowest, runs it between the knives and produces the handle without any more attention. Contracts can be secured for all the handles that can be produced with the machine.

WATEROUS, BRANTFORD, CAN.

FOR SALE

A STEAM CIRCULAR SAWMILL

WITH DOUBLE EDGER AND BUTTING saw, capacity 15 to 20 M feet per day; 40 horse power boiler and engine, lumber and wood saws, steel rails on lumber track, horses, wagons, harness, sleighs, blankets, loom, chains, driving plant; blacksmith, anvil, forge, bellows, vice, with all necessary tools for repairs. Everything in good order and as good as new. Also 100 acres of good land, with dwelling and boarding house, office, stables, sheds, etc. The property is situated on a good navigable stream, with an almost unlimited supply of black ash, basswood, soft elm, red birch, maple, hemlock, pine, etc., and is a rare chance, there being no opposition in buying stock, present stock being cut now. For full particulars apply to M. C. H.,

CANADA LUMBERMAN, Toronto, Ont.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

P.O. Box 2144,

NEW YORK

SECOND-HAND MACHINERY FOR SALE

One right hand 12 x 14 straight line engine, our make run a very short time.
One pair of engines, right and left, 16 x 20, can be used separately or together, with two large pulleys and fly wheel and connecting shaft.

Three boilers 48 x 14 with large domes, full fronts all fittings, fixtures and stack.

One 60 x 13 ft. 6 in. steel boiler, with 64 3/4 in. x 13 ft. 6 in. tubes, boiler made of 6 sheets double rivetted on side seams, furnished complete with all fittings, fixtures and stack, boiler and fixtures are in perfect order having been run but three months.

One 50 x 14 boiler, comparatively new, has been in use less than a year.

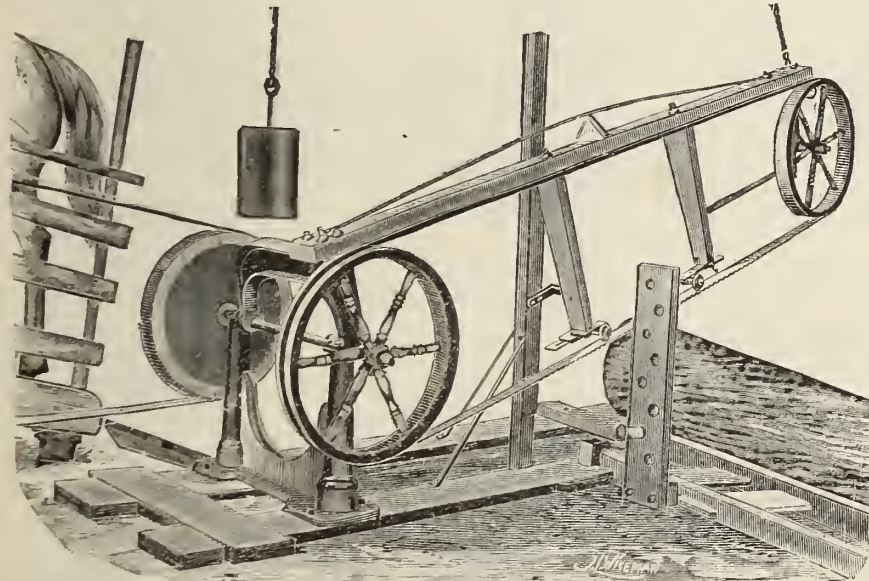
One right hand iron saw frame, with mandrel, pulley, boxes, three 54 in. saws, 50 to 100 teeth in each, and one 64 in. saw, suitable for steam or independent friction feed.

One 3-block heavy saw carriage, Sewry's make, with boss dogs, V and flat track, frame and carriage are in good order, have averaged 35,000 to 40,000 ft. per day, only discarded to put in a band mill and carriage suitable for same.

One left hand 3-block light medium sized saw carriage with V and flat track.

Several portable engines from 12 to 20 horse power.

WATEROUS, BRANTFORD, CANADA

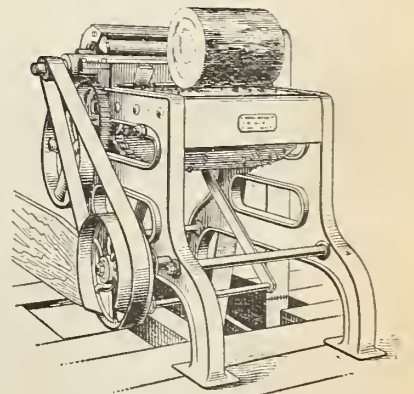


Patent Rossing Machine

For removing the bark from all kinds of stock, especially Pulp Wood, Shingle Bolts, Butter Tub stock

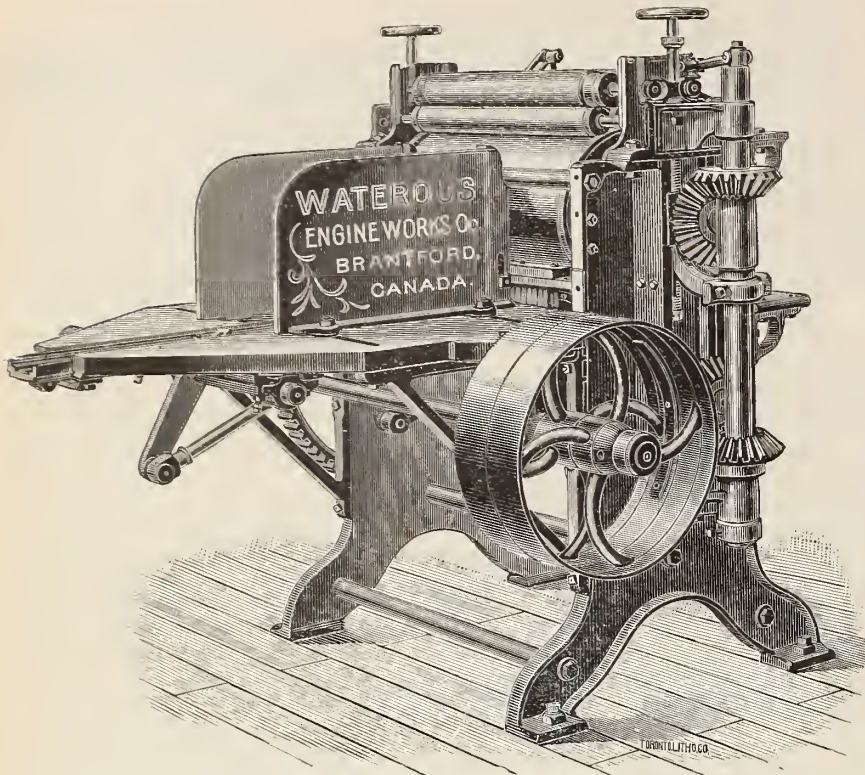
.... WHAT WE CLAIM FOR THE MACHINE

It will do double the work of any other. It leaves the block in better shape. In shoving off timber it is unexcelled. It is a safe feeder and will soon pay for itself.



EASTMAN LUMBER CO. - - - EASTMAN, QUE.

Sole Manufacturers for the Dominion



NEW WOOD PRINTING MACHINE
(Several machines in stock for immediate shipment)

A HANDSOMELY printed box or package cover is a continuous advertisement. When printed on the wood it cannot be removed, and is less liable to defacement. Our New Wood Printer is the best method for doing this work.

It has a capacity to print from 50 to 70 boards per minute.

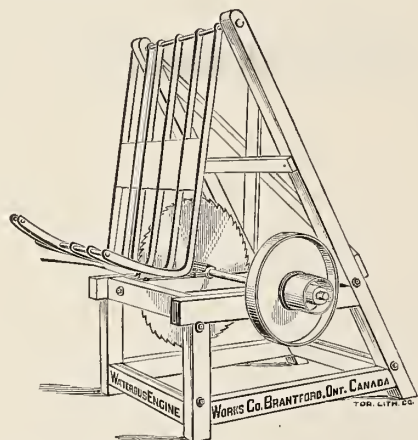
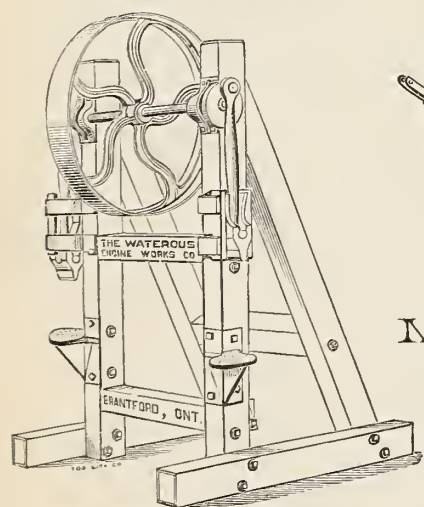
It will print a board up to 26 in. long, 24 in. wide, and 3-16 to 1 1/4 thick. The frame is extra heavy, and the gearing very strong. The type, in printing, can be pressed into the board 1/8 in. if desired without straining the machine.

A special feature of the machine is the improved positive crank feed. This is much

superior to the ordinary feed. This new feed is so positive that the same board may be printed any number of times without showing any deviation in the printing. The feed is also easily regulated to accommodate any size of board.

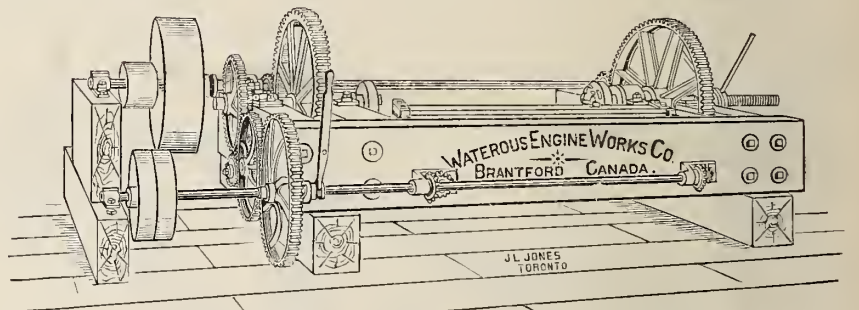
The type roller is adjustable to uneven thickness of the boards. Three inking rollers pass over the type, while ink is distributed by two distributing rollers. A brush cleans the boards as they pass under it. The inking fountain and rollers are arranged for easy removal.

WOOD
YARD



MACHINERY

CRADLE WOOD SAWS and
SINGLE and DOUBLE SPLITTERS
THREE SAW MACHINES with endless
chain carriers, capacity 70 to 80 cords
per hour; cut 16 in. and 12 in lengths



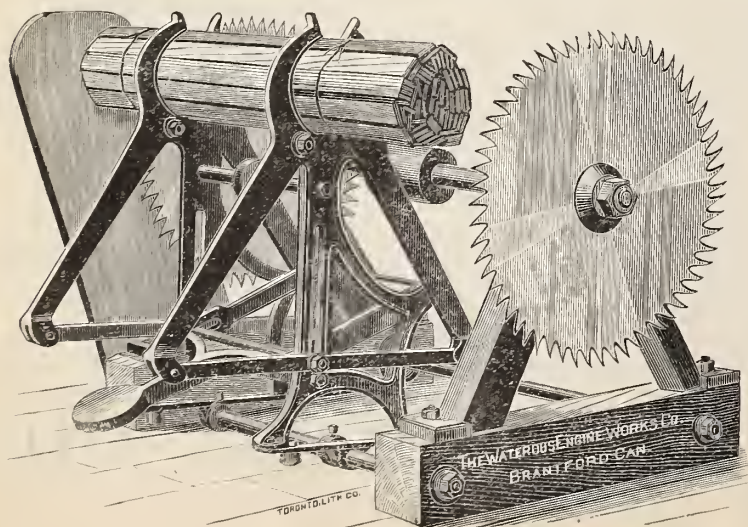
Veneer Cutting Machine

(Made with both heads adjustable to dog the log, or only one, as shown in cut)

No. 1 swings a log 48 in. x 60 in.

No. 2 " " 48 in. x 72 in. to 78 in.

Frame, very heavy oak, stiffer than the usual iron frame

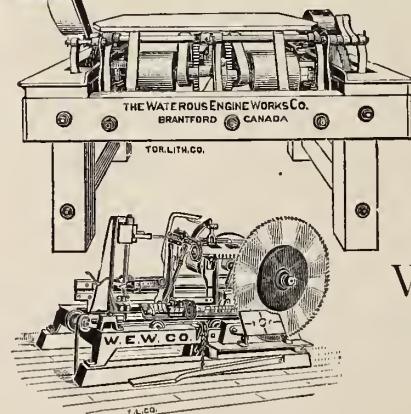


LATH
BUNCHER

.. AND ..
TRIMMER

Improves the
appearance of
your lath,
increasing
sales

...Combined Lath Mill and Bolter



Also
Single ...
Iron Frame
... Lath Mills

Waterous and Boss
Shingle
Machines

.....WRITE FOR SPECIAL CIRCULAR AND PRICES.....

POROUS TERRA COTTA

Proved by actual and thorough tests to be the best fire-proofing material in use.
 Unequaled for making buildings, vermin, heat, cold and noise proof.
 For partitions, costs no more than brick; weight, one-third that of brick.

SEND FOR CATALOGUE AND PARTICULARS

THE RATHBUN COMPANY :::
 ::: MANUFACTURERS, DESERONTO, ONT.

H. G. ROSS & CO.

Real Estate, Fire and Life Insurance
 SHIPPING AND GENERAL COMMISSION AGENTS
 . . . TIMBER LIMITS AND FARMING LANDS A SPECIALTY. . . .
 A.B.C. Code
 CABLE ADDRESS: "ROSS" NEW WESTMINSTER, B.C.
 CORRESPONDENCE SOLICITED BOX 273



A. ALLAN, President

J. O. GRAVEL, Secretary-Treasurer

J. J. MCGILL, Manager

F. SCHOLLES, Managing Director

Canadian Rubber Company

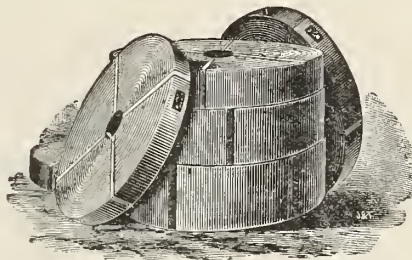
Capital, \$2,000,000.00

of MONTREAL, TORONTO and WINNIPEG

MANUFACTURE



SUPERIOR QUALITY
RUBBER GOODS
 for Mechanical Purposes
RUBBER BELTING, PACKING, HOSE



FORSYTH
Seamless Rubber Belting
Seamless Tube Hose

These Patents we control for Canada

HEAD OFFICES AND FACTORY: MONTREAL

Western Branch: CORNER YONGE AND FRONT STREETS
TORONTO

J. H. WALKER, - - Manager



J. D. SHIER
 MANUFACTURER OF
Lumber, Lath & Shingles
 BRACEBRIDGE, ONT.

THOS. MCGRAKEN
 (Member Toronto Stock Exchange)
 BROKER & FINANCIAL AGENT
 DEALS SPECIALLY IN TIMBER LIMITS
 No. 2 Victoria Street,
 TORONTO, ONT.
 Telephone No. 418.

Rochester Bros.
 :: COMMISSION AGENTS

Limits bought and sold on commission. Limits traveled and carefully prepared. Estimates given.
 Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.
 Communications confidential. References given.
 36 Rochester St. **Ottawa**

Actual Results

NET PREMIUMS
 PAID TO THE

ONTARIO MUTUAL LIFE

on an ordinary Life Policy of \$1,000,
 No. 1230 during its first 20 years,
 issued for age 37:

In 1872....	Paid \$26.57	In 1882....	Paid \$13.29
1873....	" 26.57	1883....	" 12.33
1874....	" 26.57	1884....	" 11.09
1875....	" 24.71	1885....	" 11.35
1876....	" 20.05	1886....	" 11.35
1877....	" 19.16	1887....	" 12.19
1878....	" 17.32	1888....	" 12.88
1879....	" 13.02	1889....	" 12.41
1880....	" 12.05	1890....	" 11.91
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Dauntless Shingle and Heading Machine

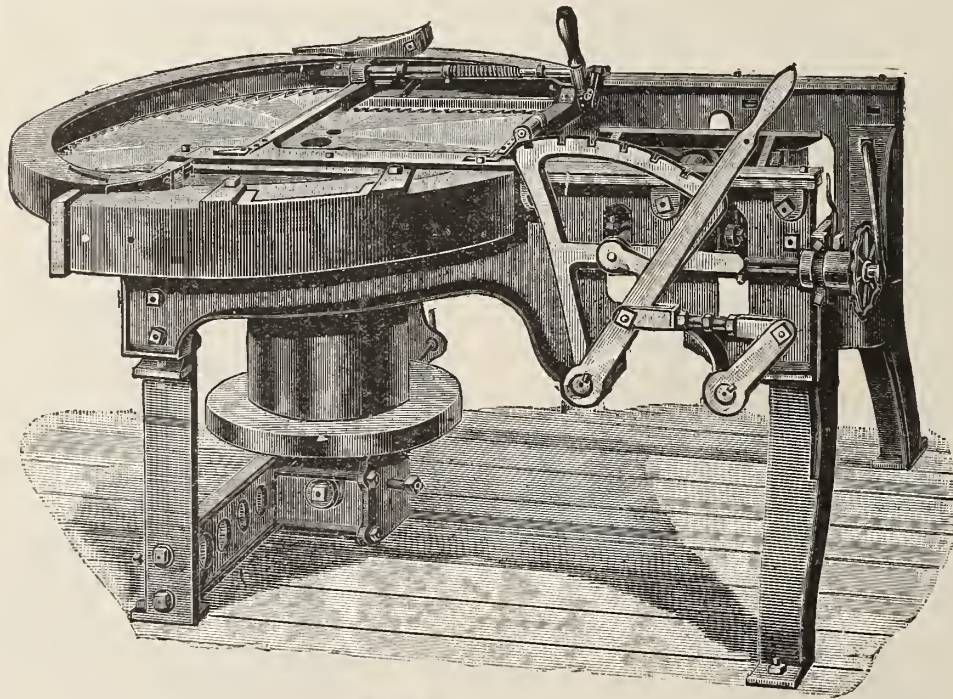
.. WILL make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

... Is of Iron throughout, very heavy and rigid, strongly bolted and braced.

THE CARRIAGE

... Is very light and strong, made of forged Cast Steel Plate, running on steel ways or tracks. Will take in a block 18 inches wide and 19 inches long, adjustable for 16-inch or 18-inch shingles.



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[COPY.]

LINDSAY, May 18th, 1893.

Mr. F. J. DRAKE, Belleville. Dear Sir,—The shingle machine we bought of you over a year ago is doing well. Last year we averaged over 32,000 shingles per day all through the season. We did not lose 15 minutes' time from all stoppages, and all repairs so far have not cost 50c. We expect to make a still higher average cut this year.

All our other machinery purchased from you is as good as the shingle machine. Your drag saw, with friction drive, cannot be beaten. We run ours 180 strokes per minute; with 6½ ft. saw it would easily make blocks for two shingle machines. The splitter, with balance wheel 4 feet diameter, weighing 1,000 lbs., is perfect and runs without the least jar. The iron frame shingle jointer with 40-inch saw is the only good jointer we ever saw. In fact, all your machinery, line shaft, pulleys, etc., give us the best satisfaction.

We expect to require another mill in a few days, and, if we do, will send you the order for complete outfit.

Truly yours, M. DOVEY.

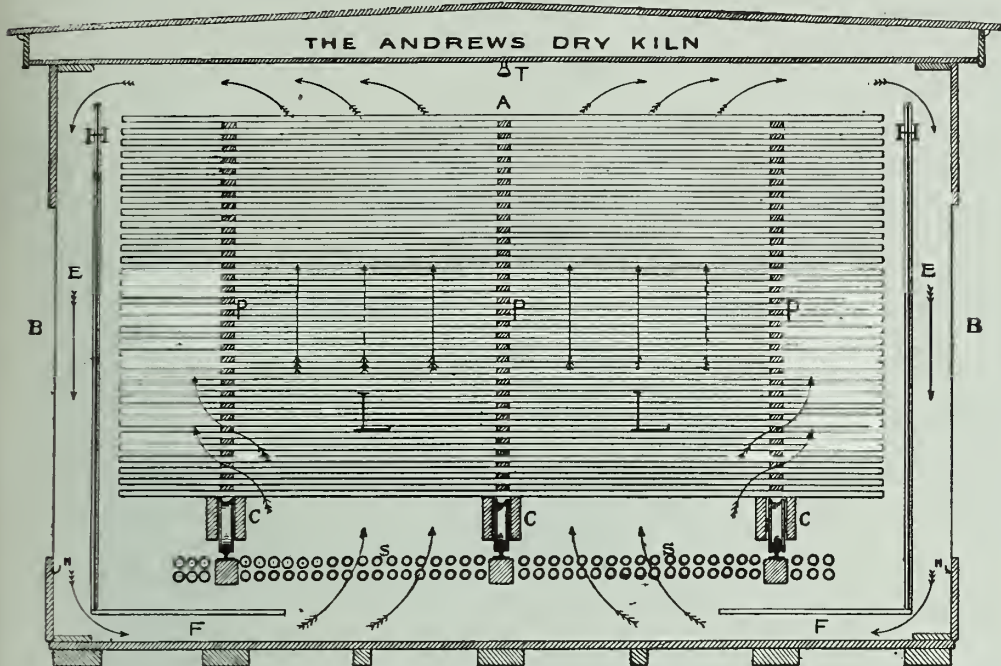
P.S.—If any one wants to see a good working shingle mill send them to me.—M. D.

F. J. DRAKE

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For Lumber, Shingles, Staves, Heading, etc.



This system and apparatus covered by letters patent.

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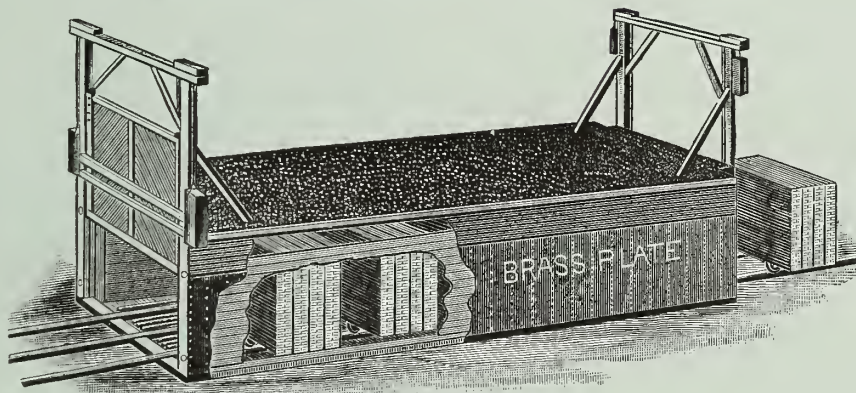
THIS DRYER

HAS PROVED TO PURCHASERS TO DO WHAT IS GUARANTEED IN SAVING THEM MONEY IN

Freight, Insurance, Time, Interest, Expense, Capital, Yard Room, Labor

There may be persons who do not appreciate the advantages of the artificial drying of lumber. But the shrewd men, in the manufacture of furniture and other woodwork where reputation would be sacrificed by a lack of proper material for good gluing and finishing, recognize a good system of drying as an important element of their success. High scientific authorities and thoroughly practical men are now agreed that the hot-blast and rapid-current systems ARE WASTEFUL, and that steam heat is the only safe means for artificial drying. The mode of applying steam heat most efficiently and economically is therefore now the essential point. The Andrews Dryer accomplishes this result more surely than any other known system.

- NO FAN
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- NO CHIMNEY
- NO SPECIAL FIREMAN OR FUEL
- NO EXPENSIVE BRICKWORK
- NO RISK OF FIRE
- NO CHECKING OR WARPING
- NO CASE-HARDENING
- ... NO EQUAL ...



Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

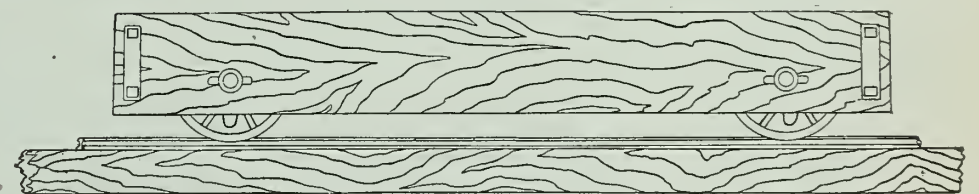
“WE PUT GREEN SPRUCE IN DRIPPING WITH WATER, AND IN EIGHTEEN HOURS IT WAS DRYER THAN LUMBER THAT HAD BEEN STUCK UP IN THE YARD ALL SUMMER.”

This is the verdict of a Quebec lumber firm, and we can give equal results every time.

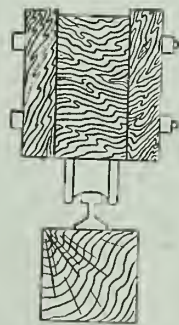
The Andrews Lumber Dryer

Has been proved to possess the following points of excellence:

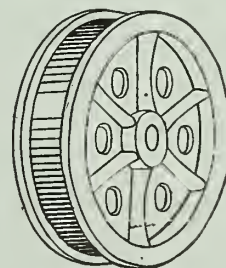
- 1st. That its drying is rapid and perfect.
- 2nd. That external and internal checking and discoloration are entirely avoided by this method.
- 3rd. That the drying is done by a CONTINUOUS system and the temperature of the kiln is under absolute control at all times.
- 4th. That our Dryer is free from the varying air currents (always wasteful) incident to all fan and open-draft kilns.
- 5th. That our drying is done by the slow continuous movement of a large body of slightly-moistened air.
- 6th. That our condensing surface is so very large as to be adequate to precipitating the moisture of the saturated air with the least amount of movement.
- 7th. That our piping is tested by high pressure and every outfit is fully guaranteed.
- 8th. That by our improved system of drainage the freezing of pipes becomes impossible.



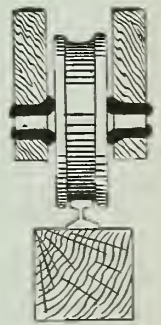
SIDE VIEW OF CAR AND TRACK.



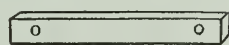
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SECTION OF CAR TRUCK, SHOWING AXLE BOX.



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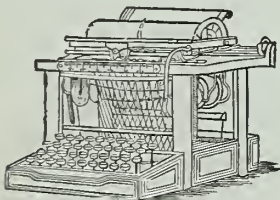
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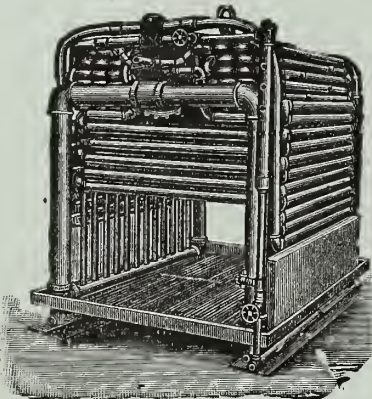
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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE.

VOLUME XIV. }
NUMBER 10. }

TORONTO, ONT., OCTOBER, 1893

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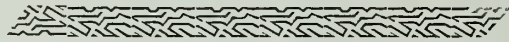
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EXTRA REFINED SILVER STEEL
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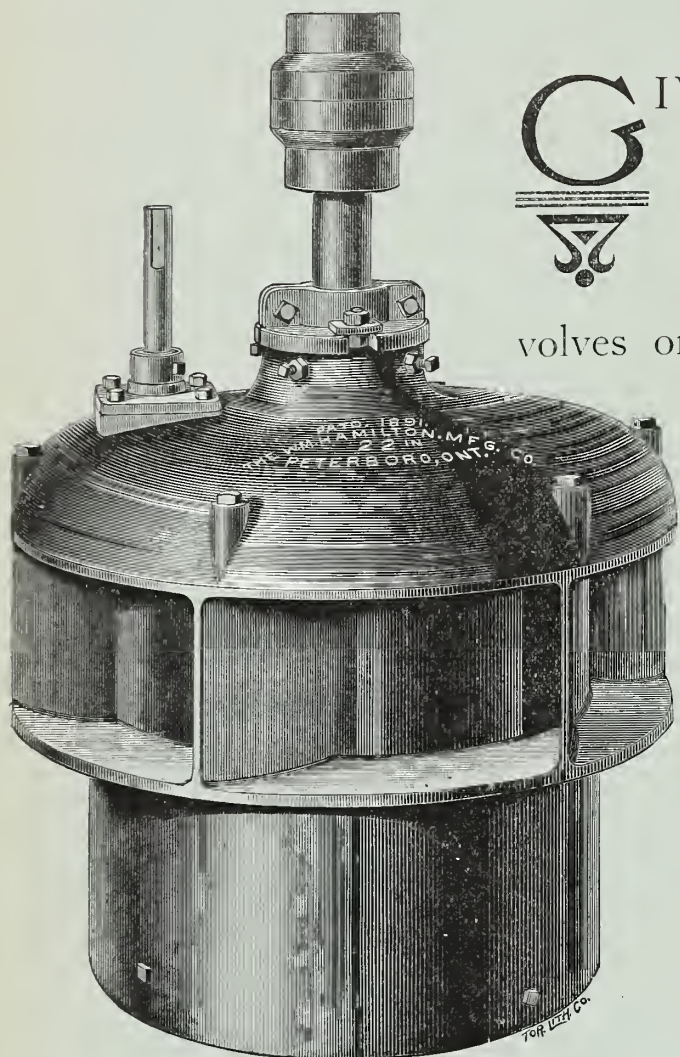
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THE "BOSS" TURBINE

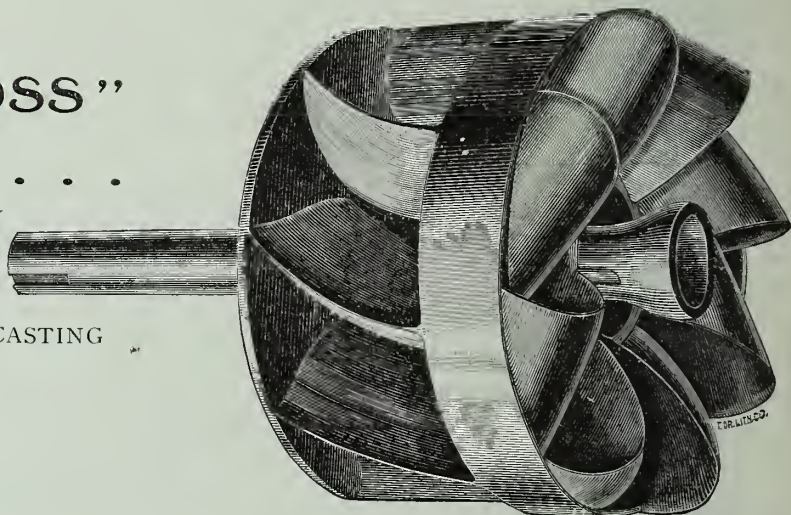
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The easiest working gate of any wheel made; revolves on steel balls, therefore, moves without friction. Easily controlled by governor.



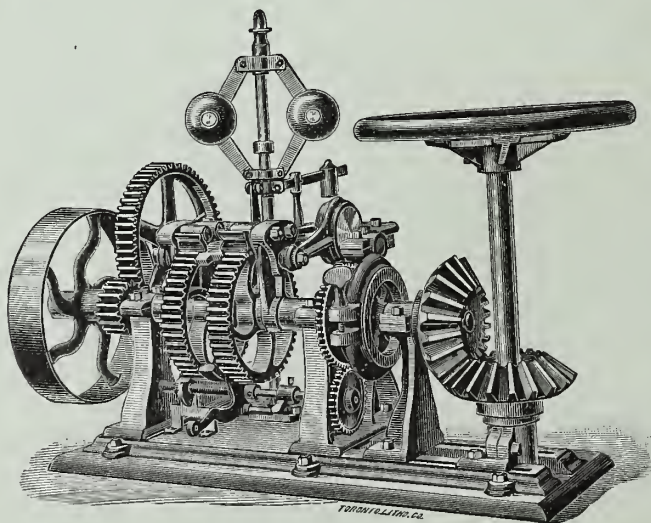
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BY THE WAY.

PULP wood operators are proving more conservative in their methods of dealing with the forest product than has been the custom with holders of pine. Realizing that the annual consumption of pulpwood is growing enormously we are told that operators in pulpwood in northern New York have posted notices at places where the product is delivered for sale or shipment, to the effect that no wood will be received that is less than four inches in diameter at the smaller end. This, it is thought, will prevent the cutting of small-sized poplar and spruce, and thus save waste of growths that are not much larger than staddles. The practice is in striking contrast to the slaughter of the innocents in the pine forests of both the United States and Canada. The capacity of pulp mills in the States has increased from 72,000 tons twelve years ago to 700,000 tons a year, calling for 3,500 cords daily to feed them. Relatively the growth has been nearly as marked in this country. E. B. Eddy, of Hull, has developed this branch of his business to large proportions during the past few years. And word reaches us of the erection of a large pulp mill at Milton, N.S., at a cost of \$30,000, and of another at New Germany at a cost nearly as large. Canada is rich in spruce, yet the suggestion here to wise economy is worthy careful heeding.

× × × ×

Where brick and stone buildings are on the increase in most parts of our own land, for various obvious reasons, not the least, in the large cities, because of danger of fire, it is interesting to observe that in different parts of Europe, wooden buildings are becoming increasingly the vogue. Wooden buildings for Ireland is a recent suggestion which has been received with favor in many parts of the Emerald Isle; the latest development comes from the Riviera, where it is thought they would afford far less danger than stone buildings in case of danger. A company has been formed at Pegli, some little distance from Genoa, to lay out a small town, the villas being imported from Sweden. Beams, flooring and roofs are exempt from duty, but doors, window frames and carved woodwork pay a duty of 13 lire per 100 kilos. Another custom that is favorable to lumbermen in European cities, and in contrast with a growing custom in Canadian and American cities, is the construction of wooden pavements, where here we are using more and more asphalt and other forms of concrete.

× × × ×

Men will make mistakes. There are few who don't. The foolishness is in not profiting by the mistakes made. Experience ought to be made valuable and yet it is the case that one may place too great importance on the experience of the past. The lumber trade has suffered before to-day from over-production, and for the past few years dealers have carefully avoided a repetition of the blunder. Now there has come an unexpected depression in the trade. Greater quantities of lumber than had been anticipated will be carried over the winter, and the policy would appear to be to level up these conditions by curtailing the cut the coming winter. This would appear a wise decision. But is it? It would be a serious blunder to find the stock of logs cut come largely short of the demand that would exist in the spring. This may not, on the surface, seem probable, and yet it is a view that is taking a strong hold of some lumbermen. It is a case where a careful weighing of many probabilities is needed on the part of lumbermen. And now is the time to do the weighing.

USE AND ABUSE OF BELTING IN SAWMILLS.

THE use of belting is one of those subjects that can be discussed to almost no end in a journal devoted to a consideration of mechanical affairs. To the sawmill owner it is a subject of very practical importance for, as the Southern Lumberman remarks, no institution pays out more for belting than the sawmill. Such belts, our Nashville cotemporary goes on to say, are naturally subjected to severe use from exposure, dust and grease. The nature of the work is very severe and belts should run as slack as possible to do their work. Only belts of ample width over larger pulleys can be run slack without slipping. The unequal work and severe strain put on belts running saws, etc., necessitates that the belt be protected from dust. This can generally be done by the use of hoods or other means. Oils and dust are the belts' worst enemies. There is no institution that uses or wastes the oil as a sawmill does. By centrifugal force and other mechanical influences, oil is transmitted to belts and soon ruins them. On rubber belts the gum peels off with lumps accumulated on the pulley and in spots on the belting. The rubber surface was put there for adhesion and strength and when destroyed the belt is damaged.

It is astonishing the amount of waste in belting about a mill from carelessness in the fastenings. In many cases the life of a new belt is partly gone before it has become adjusted. It is put on either too tight or too loose—the latter most frequently, and with its powdered surface, it has but little adhesion. The belt is expected to perform its function and is allowed to slip; the edge is badly worn, damaged and stretched, and often the belt is run off the pulley and great damage done. Care should be exercised to get a belt right; if the right tension is not had, no chances should be taken. The practice of punching large holes and pulling the lace through two or three times for "strength," is really weakness, and the belt will not run as long as it would if small and closer holes were punched and the hinge lace used. A belt will run for years with this lace on line shafts, without replacing. It is astonishing how men will be contented with replacing lacing every few months, wearing out and wasting belting, when it can be made to last nearly twice as long. Good belting should be used by men who take some care of belting.

Small pulleys are hard on belts, and, where steel rim pulleys can be had, it will be found more economical to increase the size of the pulley over cast iron, thus reducing the demand on the belt through increasing the velocity. We often see good gang edgers with too small a pulley. The result is never satisfactory. It is simply a tight belt and hot bearing, with 50 per cent. more outlay for belts than would be required with a larger pulley. Fast belts require neat fastenings, and where the skill at hand can not make a belt practically endless at the joint greater speed can not be successfully used. Good rubber belting is superior to leather, but, as the qualities differ much more than that of leather, mill men are often put off with a second grade as a substitute for an extra quality. If there is any objection to good rubber belting I have not found it. It is better balanced and will run truer on the pulleys, which always adds to the life and adhesion of the belt.

Belts should be kept as free from dust as possible. It will pay mill men to protect their belting. A belt should not require any oil if protected and is not over-taxed. The rubber surface is damaged by any kind of foreign substance. On saw mandrels the pulley should be half the diameter of the saw. On fast mills nothing less than a 36-inch pulley should be used. The trouble in heating is often caused by excessive tension. No belt should be allowed to slip, as it will run to one side

and injure the edge as well as the surface in rubber.

Many mills throw away hundreds of dollars annually in belting, and are contented, as is the fashion. A practical mill man, some time back, remarked that he added two inches in width when he could in replacing belts, and found his belt bill fast decreasing. A few dollars more outlay, and a little care and protection to belting will save many dollars yearly in the belting bill and as much or more from delays. Such expenses as these and a multitude of others, are what prevent many in the saw milling business from "working to figures."

SAW-GRINDING WHEELS.

AN English authority says: "The peripheral velocity of discs for saw sharpening is from 4,000 to 6,000 feet per minute. The disc, before being put on its mandrel, should be examined to see that it is perfectly flat. Care must be taken that it does not fit too tightly on the mandrel. Wooden collars or India rubber should be inserted between the disc and the flanges or washers should retain it in place, and these must not be too tightly screwed up. Neglect of these precautions is oftener a source of fracture than any inherent defect in the disc itself. A well-made and mounted disc, properly worked, and running from six to nine hours a day, will last some three months, and will gullet, sharpen and top on the average 200 deal-frame saws each day of nine hours. It is found in practice that the action of the disc on the teeth hardens the cutting points, with the result that the saws last longer when machine than when hand-sharpened. No sawmill can be fully equipped which is without a saw-sharpening-machine; it pays when there is only one frame or saw-bench. A great economy is effected in labor and files—a man with the machine will do as much work as six sharpening by hand simply. In respect of the cost of files it may be said that this is almost entirely saved, each disc costing only a few shillings, and lasting in constant work for two or three months. Some workmen are so skilled in the use of the machine as to be able to turn out the saws topped ready for working. Another great merit of the machine is that the tooth spaces or throats can easily be maintained at a uniform depth, so that not only does the saw work better and quicker, but less power is required to drive it, and the risk of buckling in regulletting or toothing it, which is necessary when the teeth are permitted to become stunted or stumpy, is absent.

ALWAYS A GOOD REASON.

IT is indisputable that the number of boiler explosions in this country is alarmingly great, and it is equally true that a boiler does not explode without there being a very good reason for it—a very good reason and a very simple one. There was a time when it was believed by many that there were hidden causes for boiler explosions, and a rather flourishing, if not remunerative, business was done in the theoretical manufacture of some mysterious gas that could never be made to materialize except just at the time when no one had time to detect its presence, and the boiler went to pieces. There are, perhaps, still a few left who believe in the gas theory of boiler explosions, but their number is very small indeed, so small as to make no impression on current opinion. An overwhelming majority of engineers at the present day believe that if the cause of a boiler explosion is looked after in the right way, it will be found without the necessity of making some old gas theory do service, or inventing a new one; without bringing into the argument any unaccountable or unheard-of action of the water, or in any way going outside of what plain people can understand.

A LUMBER LESSON FROM MICHIGAN.

BY WILLIAM LITTLE, MONTREAL, QUE.

IN corroboration of what I have already written you on the subject of the export duty on sawlogs you will find, in the Saginaw Board of Trade Review for 1892, a number of object lessons that must dispel any doubts if such existed in the mind of any Canadian of the serious mistake made by the Government in removing the export duties from logs and the imprudence of not immediately re-imposing them. This review clearly shows what I have already informed you, that the cost of towing and risk attending the existing method of draining away our timber, instead of being as claimed by interested parties expensive and hazardous, is just the reverse, and also that the Saginaw district of Michigan is now almost wholly dependent on Canada for supplies of white pine timber to stock its sawmills.

You are, I presume, aware that the chief source of profitable industry of Saginaw, now said to be a city of 62,000 people, has been the white pine lumber trade—this city annually producing about one half of the lumber sawn on the Saginaw river—and the great question was what could be done when the pine timber tributary thereto and on which its prosperity depended became exhausted, as is practically the case. This question you will see has now to the satisfaction of the Saginaw lumbering industry been successfully solved by the repeal of the export duty on logs by the Canadian government. And for this solution the compiler of the review does not even require us to open its pages, for it is disclosed on the outside cover where a map is presented showing the city of Saginaw at the head of Saginaw Bay, Mich., having a dozen or more railway and vessel routes diverging therefrom, and you will find the source of pine timber territory that is expected to furnish supplies necessary for her sawmills, not as might be supposed in Michigan or even in Wisconsin or Minnesota, but actually in two sections of the Georgian Bay district of Canada, where everything is elucidated by those three portentous words — “Pine Timber Region,” thereby intimating in the plainest possible manner entire dependence on Canada for future supplies of white pine timber. And lest there should be any doubt in this matter we are informed, as you will see on page 11, that from this source, and by the existing method of log towing, are supplies for many years to come to be obtained to sustain the sawmilling industry of Saginaw, where it states: “Although the pine log supply has been diminishing during the past ten years, in the territory reached by the rivers tributary to Saginaw, a new source of supply has been opened in the Georgian Bay and Lake Superior districts, and the rafting of logs upon the great lakes to the Saginaw river mills, which was regarded a few years ago as impracticable, has now become one of the permanent business interests of the Saginaw Valley. The rafting of logs across Lake Huron is rapidly increasing each year, as experience has demonstrated that the new method of using bag-booms for this purpose is entirely safe. Those who are best acquainted with this industry assure us that it is only in its infancy, and that the Saginaw river mills will be supplied for many years to come in this way.”

This is, however, merely the introductory lesson, other practical ones are to be found within, represented by three nicely executed photographic illustrations. The first on page 30 represents

A TUG-BOAT PUFFING AWAY

in front of a dark looking object covering a vast expanse of the lake and resembling in the distance a pear shaped island, which a close observation discloses to be about 50 acres in extent and to consist of 5,000,000 feet of Canadian pine sawlogs on their way across the lake to satisfy the insatiable maw of the Michigan sawmill. And rafts of a much larger size even than this one are by no means uncommon, for those of 10,000,000 feet have been safely towed through the lakes. In this connection it may not be amiss to give the statements made in this review which show that towing rafts through the lakes is not attended with either the cost or the risk that was claimed by an hon. gentleman engaged in the business in his speech in Parliament last session, where it says: “The business of rafting logs on the lakes has

been successfully conducted for many years on Lake Huron, immense quantities have been handled. The invention of the bag-boom has made log-towing on the lake practically as safe as on the river, and by this means rafts of 3,000,000 to 5,000,000 feet each are brought to the Saginaw river. The picture on page 30 represents one of Sibley & Beringer's rafts on Lake Huron, containing 5,000,000 feet of logs. The repeal of the export duty on logs, exacted by the Canadian government, greatly stimulated the rafting of logs across Lake Huron to Michigan mills the last two years. In 1891 no less than 80,000,000 feet were brought to the Saginaw river and in 1892 a much larger quantity came over as figures below will show—184,500,000 feet.”

From the foregoing we may reasonably assume since “log towing on the lakes is practically as safe as on the river,” that the risk of log towing amounts to a mere trifle, while the immense size of the rafts that are thus safely and successfully towed over greatly reduces the cost of towing, so that investigation will probably show that, instead of \$1.50 for lake towing, 50c. for river towing, and 75c. for risk, or \$2.75 per thousand feet, as was stated by the hon. gentlemen in his speech in Parliament, the whole cost of towing and risk did not much, if at all, exceed \$1 per thousand feet, instead of \$2.75, as stated. In this particular instance probably 50c. per thousand feet covered all cost of towing and loss on the 5,000,000 feet contained in this raft.

Referring to this subject the July number of THE CANADA LUMBERMAN contains the following: “A writer in a recent number of the Manitoulin Expositor, published in Little Current (Georgian Bay District) expresses himself in vigorous fashion, thus: Last year 175,000,000 feet of lumber was exported in logs (actually over 250,000,000 feet) and this year there is to be 455,000,000 feet taken over to the States, showing that the annual shipment is increasing. This may look well, but how does it affect our country? In the first place, if these logs had to be manufactured in this country we should hear the busy hum of sawmills all along the shores of the Georgian Bay, see thousands of men busily engaged in these mills, see little villages in a prosperous condition and everybody enjoying life. Again, the fact of logs being towed across the lakes materially affects the shipping and the work to be done by Canadian vessels. This means a

HEAVY LOSS TO VESSEL OWNERS

in our country. As it is now, our mills are to a great extent shut down and standing there rotting, men are complaining of hard times and no work, the merchants in the towns have a great difficulty in getting a living, and on the whole the country is dead. No wonder that there is such an exodus from our country of the best of Canada's sons.” And concludes: “By all means put on the duty and save our pine.”

The foregoing is no fancy picture, but is patent to the observation of anyone who may take the trouble to enquire into the conditions. Not only are mills being shut down but every few weeks we hear of mills being burnt down, no doubt from the carelessness or indifference of those owning such property, which are thus made valueless by the direct action of the Government in legislating as it has done in the interest of foreigners.

For our next object lesson we have on page 50 the representation of a Saginaw sawmill apparently actively at work converting the logs into lumber, and said to give employment to 150 men for six months in the year.

The product of the 26 sawmills operated last year in Saginaw is given at 321,831,312 feet. (This is, of course, exclusive of the product of the mills at Bay City and elsewhere on the river which cut 386,633,715 feet, and made a total product for the Saginaw River of 708,465,027 feet) which is equal to an average cut of about 12,250,000 feet for each mill, or to the out-turn from 2½ rafts such as represented.

The 455,000,000 feet of sawlogs, equal to 91 such rafts, purposed to be towed over to Michigan this year from Canada, being over 40 per cent. more than the entire cut of the Saginaw City mills last year, would consequently give employment to 37 such mills, and turn out an amount of lumber greater than our whole export of white pine lumber to the United States last year, so that

you may see this is not the trifling matter that ignorant or interested parties try to make it appear.

I know that hon. gentleman scoffed at the idea that any such quantity as 455,000,000 feet is to be towed over this year, but the same gentleman ridiculed the statement made that anything like 200,000,000 feet had been towed away last year, when here we find it stated that the Saginaw River district alone received last year from Canada 184,500,000 feet, or within eight per cent. of this whole amount, without taking into account the large receipts of Canadian sawlogs at Alpena and Cheboygan, which are extensive manufacturing points, and situated only one-half the distance from Canadian sources of supply, or those rafted to other points in Michigan and elsewhere; so that it would be found, if correct figures are obtained, that the

QUANTITY OF PINE LOGS EXPORTED

to the United States from Canada last year was over 250,000,000 feet, instead of 200,000,000 feet, which was said to be excessive.

Then we have the third and last object lesson which if properly considered is of even greater importance than the others, for it represents an immense manufacturing establishment covering several acres in extent surrounded by piles of lumber to be converted into the many useful articles for which lumber is a prime necessity, and which is said to give employment to over 300 men for twelve months in the year, mostly skilled mechanics.

A tabulated statement mentions that such factories of which there are 18 in all—the one represented being, however, of greatest extent—employ 2,302 persons, as compared with 1,890 employed in the 26 sawmills, 292 in the 15 shingle mills and 296 in 8 furniture factories, and turn out products to the value of \$5,208,634, the sawmills, \$4,824,826, shingle mills, \$330,592 and furniture factories \$374,500, or a total of 4,780 men employed turning out wood products valued at \$10,738,552.

On a similar basis the products of the 455,000,000 feet of sawlogs to be exported from Canada free of export duty this year would give employment to 6,650 men and produce products of the value of over \$15,000,000, a sum in excess of one-half our whole exports of forest products. I do not, however, claim that the value would be so great as this, for the compiler of the review has probably included the value of the lumber which entered into the other manufactures, but it would reach a value of at least \$10,000,000, instead of less than \$2,000,000 expended in getting out the logs, and this last amount would be spent in like manner in this country whether the logs were manufactured here or elsewhere. So that our country is deprived of this amount of profitable industry, and a large additional amount in the subsequent traffic to railways and vessels of these manufactured products, which is now wholly lost to us not only without any valuable compensation, but with direct injury to our own manufactures.

In my opinion it is in this manufactured condition the products of our forests should leave our country, not in that as at present of immense rafts of pine sawlogs, of which we have only a limited supply, and from which our people derive neither employment nor revenue.

The artist has not favored us with any illustration showing the condition in which that part of our country is left whence these logs were obtained which give Saginaw all this business prosperity, for

THIS BEING CANADA'S INTEREST

in the matter did not of course concern Saginaw, but it would no doubt be found to be in that state as an intelligent observer recently remarked one of our western cities might find itself under certain conditions, “with its whole insides jerked out,” and nothing but the abomination of desolation remaining. Under conditions such as those now existing, wherein Michigan lumbermen have advantages over our home operators in the Georgian Bay district of fully \$3 per thousand feet, one need not go so far to find the reason why new mills are being erected in Michigan to saw Canadian logs, while many of those in Canada are allowed to be closed down or cremated.

Almost identically unsatisfactory conditions exist in the Canadian pulp industry, which was beginning to

become a very important one, for we find that, in the Eastern Townships and on streams entering the St. Lawrence River, as well as in the Georgian Bay and Lake Superior districts, large amounts of spruce and other pulpwood are being likewise exported free of export duty to the United States, while heavy duties are exacted on the American frontier on any pulp exported from Canada; so that on all sides we are frittering away our heritage of timber with little benefit to our own people, when a proper policy on this subject would at once make us masters of the situation, since our American neighbors have now so far exhausted their immediately available supplies of white pine and spruce timber, from which to make lumber and pulp, that they must in the future depend largely on Canada for such material, and we would be enabled to get satisfactory prices therefor, instead of as we have heretofore been simply hewers of wood for others, whence our country barely derived compensation for the labor expended in our efforts "to get rid of the timber."

Apart, moreover, from the serious loss to Canadian labor in being deprived of its manufacture, there is, in the transfer of such a vast amount of manufactured timber to the United States—an amount that would give employment to fifty ordinary Canadian mills—a loss of revenue to be sustained this year of probably a million dollars, when all logs and pulp wood are included, while at the same time our railways and vessels are wholly deprived of any participation in the freighting of these products, sufficient to give a railway traffic of 50,000 car loads or a vessel tonnage of 700,000 tons in a single year; every foot of this not only to give employment to American mills, but go to swell the traffic of American railways and vessels, and to stock the American market with the great amount of lumber and pulp made from our timber, to supplant an equal amount that would otherwise be profitably supplied by our own manufactures.

Not only is this policy ruinous to our own people, but it is unjust to the Americans to allow it to be continued any longer, for it is leading them into expenditures that will be valueless when it is changed, as soon it must be, and in justice to all it should be now.

In connection with this subject, as it was a matter of debate in Parliament, I may here state that the pretensions made by some persons of a great amount of American whitewood (called yellow poplar) still existing in the United States, which was to be a substitute for our white pine, do not appear to be based on a correct knowledge of the situation, for at the recent meeting of the Poplar Manufacturers' Association, the Secretary, Mr. A. H. Winchester, gives estimates made largely from personal explorations, and places the total United States' supply of merchantable poplar timber available at 6,500,000,000 feet, and adding small and remote timber, the whole not to exceed 10,000,000,000 feet, which is less than the amount of pine timber cut in a single year (1890) in the three states, Michigan, Wisconsin and Minnesota. And he directly scouts any supposition that this wood exists in such quantity as to furnish

A SUBSTITUTE FOR THE WHITE PINE,

for he says: "No remark is so irritating to one who knows the true condition of the poplar field as the one we so often hear as to poplar being the coming substitute for white pine when the fact is, as we see it, that the last poplar log will have become a tradition before the output of white pine has been materially curtailed. Every day sees us looking for new uses for poplar, when we cannot supply our existing demands. Our grand poplar field is obliterated. Stranded, detached bunches of stumps remain, but are fast disappearing."

Here also permit me to say that fresh evidences are constantly appearing to show how limited our own supplies of white pine are becoming. In the last Crown Lands Report of Ontario, the Hon. Mr. Hardy clearly shows that nearly the whole remaining timber reserves in the Nipissing district south of the Ottawa and east of the Georgian Bay have been sold, for although he does not so state it, yet this is evident from a consideration of his remarks, for he says: "Of the total area (of limits sold), 410 miles were in the district of Nipissing on the headwaters of the Muskoka, Madawaska and

Petawawa rivers, surrounded by licensed lands upon which lumbering is being actively carried on." For when you consider that the waters of the Muskoka flow into Georgian Bay, while those of the Madawaska and Petawawa run to the Ottawa, and that the most valuable of those limits were purchased with the intention of taking the timber across this height of land to the waters of the Trent flowing into Lake Ontario, and as he says, they are surrounded by licensed lands upon which lumbering is now being actively carried on, it becomes at once apparent that the whole intervening country, up to the headwaters of these rivers, has been overrun by our lumbermen for supplies of white pine timber, and this last block of limits is now to be lumbered on. There is then left in that province only that portion bordering on Georgian Bay and Lake Superior, from which the Michigan lumbermen are now deriving a large amount of their supplies, together with insignificant patches here and there in the Lake of the Woods district on islands and in small groves, most of which is tributary to waters flowing into Hudson Bay, and being in many instances of little greater value than the Banksian pine (cypress) of this province, which has hitherto been considered valueless. In rear of the streams on the north shore from which the Michigan mill men are now getting stock, the character of the country is correctly represented in the same report by Mr. John McAree, O.L.S., who made an exploration along the line of the Canadian Pacific Railway for 79 miles, from Woman River to Windermere, when he says: "The timber is that which is common to this whole northern country, viz.: spruce, tamarac, banksian-pine, white birch, balsam, poplar, cedar, etc., and extensive fires appear to have swept over the country in former years, so that over most of the land that we saw the trees are of second growth and small in size."

And lest it might be thought that his failure to mention the white pine was an oversight he says, in concluding his report: "I beg leave to add by way of addenda that we saw not more than two score trees of red or white pine in the whole survey."

And this is unfortunately for us the character of most of the country of which an hon. gentleman informed Parliament,

THE ONTARIO GOVERNMENT,

with that wise regard for the future which has characterized almost all its policy, has reserved out of its entire area of timber limits, 150,000 square miles," and which are to "furnish supplies for three hundred years!"

The fact is the more this matter is enquired into the more serious appears the effects of our lack of any judicious policy on the subject of our timber, which we have frittered away in the past in a manner that has not been incorrectly styled wanton vandalism, while our present policy, which includes the evils of the past, actually offers a premium to strangers to "rob" us of what little pine timber is left, and the Canadian public supinely looks on with apparent indifference at this national suicide.

While by no means desirous of depreciating in any way the value of our country's resources, my own judgment assures me that they are not so great that we can afford to sacrifice one of the most valuable we possess—the timber—without reasonable compensation, which we have been doing in the past and which, I regret to have to add, we are still doing with apparent satisfaction on the part of both government and the people.

A CONSUMING TOPIC.

SOME one in Germany has lately revived the old idea of using coal in the pulverized form for the prevention of smoke. This idea comes up at frequent intervals, but never amounts to anything except considerable talk on the subject. The frequency with which this plan is advanced shows the desirability of smokeless combustion, but as there are numerous devices on the market at the present time, which, if applied and intelligently handled, will give smokeless combustion with soft coal, there is no necessity for a scheme which involves the handling of the fuel three or four times more than at present.

THERE is only one wood known to be better for pump stocks than poplar, and that is cucumber, a kind of magnolia, and not very plentiful.

VIEWS AND INTERVIEWS.

A Pinch of Dust.

The dangers that lurk in the air form the subject of an essay by M. de Nansouty on "The Atmosphere of Large Towns and Micrography." He points out the increased pollution of the air in Paris from the factories worked by steam machinery. An analysis of dust and rain particles reveals that a remarkable collection of divers objects may be absorbed at every breath in the street of a large city; silex, chalk, plaster, pulverized rock, charcoal, hairs, fibres, vegetable refuse, starch, pollen cells, etc. A specimen of dust collected from furniture on the third floor of a street in Rennes contained all this and nearly three million bacteria in addition. A gramme of dust (about fifteen grains) in movement in the streets encloses about 15,000,000 bacteria.

Sawdust as Horse-Fodder.

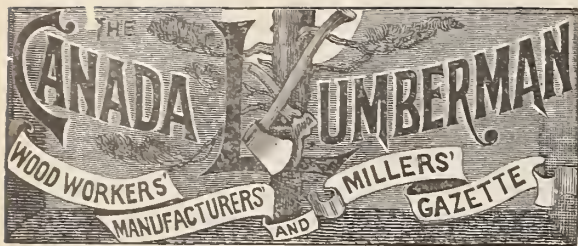
Stories have been told of experiments made in bread-making from sawdust, and it is possible that in Russia, when dread famine has threatened its thousands, and the inhabitants have been glad to eat bread made of the bark of trees, that a loaf of sawdust bread might be accepted. But further than this the stories of sawdust bread-making are very mythical. It is from an Englishman, however, in Sussex county, that comes the information that owing to the scarcity of fodder in that part of the country cart-horses are being fed on a mixture of one-half fresh elm saw-dust, the other crushed oats and bran. They heartily enjoy it, so it is said, and appear to thrive upon it. Fable has depicted the horse fed on shavings, though we never learned that he thrived on the diet. Sawdust, it may be expected, will no longer be procurable at about the cost of carting it away.

Emergency Surgeons.

A glance at the news pages of the LUMBERMAN each month will tell its own tale of the number and serious nature of the accidents that occur in the various saw and planing mills of the country. What to do till the doctor comes is worth knowing and may often mean the saving of a life. An emergency surgeon, says the Tradesman, should exist in the person of the foreman of every shop or factory where accidents are liable to occur. "He should be required to know enough of surgery to give the injured employe immediate and temporary relief until skilled aid can be summoned. If an artery is cut, the foreman, or some one else in the shop or factory should know how to apply a tourniquet to stop the flow of blood and perhaps save a life. A workman may be prostrated with heat; may have a finger, hand or a foot mashed, and a little timely knowledge may save a great deal of suffering and, possibly, fatal results. It will require but little time and study for anyone to acquire sufficient knowledge of surgery to be of great help in an emergency. A foreman is hardly fitted for his duties unless he possesses some knowledge of the simple forms of surgery that can be used in a case of accident."

Tree of Solid Agate.

A mining expert sent to investigate some Arizona properties for Denver capitalists recently returned and reports the finding of a most remarkable natural bridge, formed by a tree of agatized wood, spanning a canyon forty-five feet in width. The tree had at some remote time fallen and become imbedded in the silt of some great inland sea or mighty overflow. The silt became in time sandstone and the wood gradually passed through the stages of mineralization until now it is a wonderful tree of solid agate. In after years water washed and ate away the sandstone until a canyon forty-five feet in width has been formed, the flint-like substance of the agatized wood having resisted the erosion of the water-flow. Fifty feet or more of the tree rests on one side and can be traced, but how far its other side lies buried in the sandstone cannot be determined without blasting away the rock. The trunk visible above the canyon varies in size from four feet to three feet in diameter. Where the bark has been broken and torn away the characteristic colors of jasper and agate are seen. To the naked eye the wood is beautiful. Under a microscope or miner's magnifying glass the brilliancy of the colorings is clearly brought out in all its wondrous beauty.



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—BY—

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THE CANADA LUMBERMAN is published in the interests of the lumber trade and allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

FREE LUMBER.

ARE we to have free lumber? A dispatch from Washington a few days since, purporting to outline the programme of the Committee on Ways and Means, places lumber on the free list. The words of the report are these: "Timber, hewed and sawed and unmanufactured." Just what this may mean is a little uncertain without a clearer definition of the terms. It has been pointed out by Mr. H. H. Cook, of the Ontario Lumber Company, in an interview on another page, "that lumber is only lumber up to a thickness of two or three inches. Beyond that it is timber." In any case we have nothing more than the suggestion of the Ways and Means Committee naming the articles, that they are prepared to see on the free list. Congress must yet deal with the whole question and the modifications may be few or many. This is to be said, however, that before any announcement was made by the committee the impression had been growing steadily stronger that lumber would, almost certainly, be made free. This has been taken for granted even in those lumber sections where it could hardly be said that the wish was father to the thought. The matter has been one of concern to Michigan manufacturers, and a lumber correspondent from Saginaw, discussing the subject, anticipating that Congress would abrogate the dollar duty, intimates that the only way "for the Michigan and other manufacturers who ship lumber east to meet this Canadian competition will be to reduce the wages of the men to the same scale as that paid by the competing Canadian manufacturers." Doubtless there is some attempt in this statement to show to congressmen the unwisdom of taking any step, that would be prejudicial to the laboring classes, who, of course, have votes. The view, nevertheless, has been quite generally entertained by United States lumbermen that free lumber was coming.

Tariff reform is in the air, and the position taken by the Democratic party at the Cleveland election, clearly pledges it to changes that will be in the direct line of more liberal trade relations. A tariff battle is soon

to be fought at the polls in our own country. The Liberals are pledged to a removal of protective duties, and to the cultivation of freer trade relations with the people to the south of us. The Conservative party has been the party of high tariff, and its Ministers in their late stumping tours have told us that they have no intention of deviating from the principles of the National Policy, yet they are prepared to modify the tariff. More than this the Premier has stated in his Belleville speech, so far as the United States is concerned, "that if they are disposed to make fair tariff concessions, based on legislation, these fair tariff concessions will be responded to in a proper spirit by the Canadian government." The promises from either side of politics, therefore, plainly point to a relaxing of trade relations with the neighboring republic. The sentiment of the people of the country, if one may judge by the intelligent and studious interest shown, as much by one class of the community as the other, the business or the rural, is keeping fully abreast with the programme of the politicians, and we do not know but what the people are in the advance.

Writing specifically of lumber, however, in which our readers have a direct interest, a careful study of the question from all sides, and it cannot be said, in anything the LUMBERMAN has written on the question, that an unfair bias has been shown in any one direction, would seem to make very clear that lumbermen, whether owners of limits or manufacturers, are prepared to accept free lumber as a fair solution of the duty problem. Even Mr. Wm. Little, of Montreal, from whom we publish a valued article this week, and who has strong and intelligent convictions on the side of protection to our forest products, has intimated that he would be willing to accept a policy of "free logs, free lumber," as a means of leveling up the injustice that he believes exists under present conditions.

EDITORIAL NOTES.

NEWFOUNDLAND is to manufacture pine lumber for the British markets. Mr. W. F. Sterrit is having a complete rotary sawmill placed in the interior of a pine district in the island and believes he can manufacture pine for export with profit. Log driving is claimed to be easy, the mill being located in a part where pine is abundant; and the lumber is to be floated without any great labor to a seaport for shipment. The winters are also considered favorable, not being severe and though late in making the start, Mr. Sterrit expects to get in a month's work with a crew even yet before the winter sets in.

EVEN with the severe financial depression across the line, and the talk of lumber being sympathetically slow, some large sums of money are being paid for timber limits in Canada, showing a strong confidence in the real position of the lumber trade. Within the past fortnight a big lumbering deal has been completed, when the timber limits in townships of Anstruther, Cavendish and Harvey, in Peterboro' county, known as the Scott limits, were sold to J. W. Howry & Son, of Saginaw, Mich., for \$450,000. These limits were in litigation about 15 years, and were bought nearly four years ago by the Dickson Company. The limits comprise about 105 square miles. It is expected that the lumber will be worked by the new owners on mills recently purchased near Bobcaygeon. Messrs. Howry are already large owners of Canadian limits.

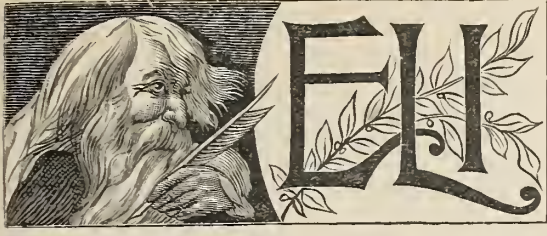
WHAT the three lumber merchants from Turkey say of Canadian lumber—their utterances are given on the ELI page of this issue of the LUMBERMAN—is a flattering compliment to Canadian forest products. Our lumber first came under their notice at the Canadian exhibit at the World's Fair, where they had an opportunity of examining the timber exhibits of all countries. And their preference for Canadian timber is decided after having made a critical "look all around." An earnest of their desire to make their decision of practical service to their business is found in their visit to the lumber mills of the Ottawa and the effort they have since put forth to secure such freight rates as would make it profitable to become customers for Canadian lumber. Canada has every reason to feel satisfied at the high place her native products of all kinds have taken at the World's Fair. To what extent tariff regu-

lations can be made to help to a widening of the markets for these products is a question that cannot be too carefully considered by our people.

MORE than once there has been talk of Michigan manufacturers importing lumber from Canada, a practice, that as a lumber cotemporary has remarked, may seem like bearing coals to Newcastle. It has remained, however, for W. B. Mershon & Co., the extensive planing mill men and box manufacturers, of Saginaw, to make of the proposition an actuality. During the past month this firm brought 393,659 feet of lumber from French river, valued at \$4,723.91, and on which they paid a duty of \$393.66. The Mershon Company have been buying lumber in Duluth and other West Superior points, but the great distance was more than an offset to the Canadian duty. So that the Saginaw firm has demonstrated to their own satisfaction that notwithstanding a duty of one dollar a thousand there is money to even a Michigan manufacturer in importing lumber from this country. The fact would seem to give strength to the contention that the States must have our lumber, duty or no duty. There is another view of the question suggested, also: To what extent might not the exportation of manufactured lumber to the States be extended, if the lumber, as are logs, were altogether free of any tax?

THE New Brunswick sale of timber licenses, which was in progress as the LUMBERMAN was on the press for last month, fell much short of what had been anticipated. The sale took place at Fredericton. The licenses offered covered 4,400 square miles or 2,800,000 acres of government timber, and nearly everything was sold. The sales realized \$72,961, and the leases hold for 25 years. Of the total \$6,000 is for new berths not sold at the last sale. In 1883 the old berths realized \$38,000 for a ten-year lease. At the same rate they should have realized \$95,000 less the discount for present value, or nearly \$28,000 more than they did for the 25 years. In the main the sales were confined to a few hands. Senator G. B. Snowball came in for 438 square miles, paying an average of \$15 a square mile. The Bank of Montreal, which was forced into the bidding in an effort to protect itself, paid \$7,179 for ten berths of varying size, aggregating between 50 and 60 miles at about \$130 a mile. Ernest Hutchinson, of Miramichi, was one of the new bidders, securing about 240 miles at a price of over \$10,000. A contrast of this sale, as also that of Quebec, with the Ontario crown lands sale, all held within a year, is very marked. Minister Hardy was in extreme good luck.

INDICATIONS point to a severe winter in the States for the laboring classes. It is well known that in all large cities at the present time the plaint of the unemployed is fast becoming serious. The statement has been made in the press that in Chicago alone there are 70,000 fewer people under employment to-day than when the World's Fair was first opened. The explanation is probably to be found in the reaction from the inflation that existed in all classes of business when the Fair was projected. Everywhere, the anticipations of even those who were moderate in their expectation of results from the Fair have been largely discounted, whilst those who went wildly mad in their anticipations of the big things that were sure to take place may well ask themselves, where am I at? What will take place when the Fair is closed will give thoughtful citizens of the Republic much concern. The depression from all accounts, will be felt in part in lumber circles. The word from Michigan, Minnesota and Wisconsin is that there is comparatively little call for men for the woods, and that wages will range from \$5.00 to \$8.00 a month less than a year ago. The highest wages offered now is said by a Michigan correspondent of the Northwestern Lumberman to be \$14 to \$20 a month against \$18 to \$28 a month last year. The effect of these conditions, if they continue to prevail, which seems altogether likely, is almost certain to be felt in Canada. Our Ottawa correspondent in his letter this month intimates that few men have as yet been employed for the shanties for the reason that an influx is anticipated from the States, and wages will thus be lowered. Fewer men and lower wages would seem to be the outlook.



IN this page have appeared not a few stories of peculiar finds, and strange growths in trees and woodlands. The following from Ottawa I may give as a fitting addition to the others. A curiosity was discovered lately by Mr. Robert Burland while walking by an inland lake on Mr. Booth's property at Britannia. A tree of peculiar appearance was found to have a chain fastened around it, the wood having grown so completely over the iron as to cover all but a few loose links at the end, which the growth of the bark had almost obscured. The chain had evidently been placed there many years ago to preserve a valued young tree from splitting apart and had held its grip while the woody growth had spread all over it in the progress of perhaps half a century. Mr. Burland secured the iron-bound section of the tree and will preserve it as a memento of his lake-side meanderings.

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"The lumber stringency is relaxing," said Mr. Thos. Meaney, manager for Robert Thomson & Co. "I was in Buffalo, Tonawanda and other points during the month and found things much easier than a month earlier. What is very satisfactory to lumbermen is the continued firmness of prices. There does not appear to be any disposition to break prices. It is not unlikely, however, as a result of the monetary scare, that there will be less work in the woods the coming winter than had in the first place been planned."

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A Southern lumberman, Mr. Henry J. Lutch, of Orange, Texas, has been delivering himself on the tariff question, and is one of the men who is not afraid of Canadian competition injuring United States lumber markets. "As far as the lumber business is concerned," he said, "I do not believe that the tariff makes any difference to the lumbermen one way or the other, except perhaps, to a few immediately adjoining Canada; but the standing timber of this country is disappearing altogether too fast, and in behalf of the people of the country I would be in favor of a measure which would let the Canadian timber and lumber in so as to save our own resources."

* * * *

A Michigan lumberman, who owns many millions of feet of Canadian timber, discussing the probable placing of lumber on the free list by Congress is reported to have said, that to put lumber on the free list, cutting off the duty at present levied, would not lessen the cost of lumber to the consumer a single cent, but that dollar taken off would be added to the price of Canadian stumpage, and would thus enhance the value of his holdings to the extent of the duty removed, as well as that of every other Canadian timber owner; and he could, therefore, view the prospect of free lumber with the greatest equanimity. To those who own timber in the States, the cutting off of the slight duty on imported lumber would stimulate competition, and the result would be a decrease in wages to meet it. He was willing to pay the duty on his Canadian timber when he should get ready to market it in the states, in order that labor here might derive the benefit, and for that reason only.

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A scribe of the Northwest Lumberman has been sizing up Mr. Claude McLachlan, of McLachlan Bros., of Arnprior, Ont. "He is a quiet gentleman," says the writer of the Windy City, "but a mighty keen observer, withal." Speaking of the number of people attending the Fair, Mr. McLachlan said: "I think it safe to say that there are every day fully as many people visitors in Chicago outside the fair grounds as inside. I stop at the Palmer House and at the boot-blacking stand I learned from the master of ceremonies that they were

giving an average of 600 shines a day as against 150 in ordinary times. The men who would have picked up an item of information of that kind, thinks the Northwestern, are very few. Mr. McLachlan says the financial squeeze has not yet affected Canada, and the lumber output of this year will be fully up to the average, but he looks for a material falling off next season. The McLachlan mills at Arnprior, as everyone knows, are among the most extensive in Ontario.

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Hon. Theo. Davie, Attorney General of British Columbia, said to an interviewer recently: "The province of British Columbia is so closely identified with Washington, Oregon and California that the slightest depression or increase in business affairs affects both Vancouver and Victoria to a remarkable extent. What the people of our province would appreciate would be the abolition of the American tariff on lumber and coal. The commerce between the United States and British Columbia is large, constantly increasing, and were the tariff laws repealed to a certain extent, the trade between the two countries would be greatly benefited. An overwhelming majority of our people do not want to be annexed to the United States, but they do want to establish a closer commercial relationship with the United States. The commerce between Australia, Asia, Europe, Central and South America and British Columbia and Puget Sound has assumed gigantic proportions in the last ten years. By the united efforts of the State of Washington and our province the trade of the western world could be made to pass between the Straits of Juan de Fuca, and a great commercial metropolis will center in this Northwest territory."

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Three prominent lumber merchants of Beirut, Turkey, Abdalah Sayih, Nicola Sahion and J. F. Aftinus, who have been visiting the World's Fair were very much impressed with the Canadian exhibit of lumber, and a few weeks ago visited Ottawa to ascertain what arrangements might be made looking towards an opening of trade between the two countries. Mr. J. F. Aftinus, who is spokesman of the party, said: "The three of us are lumber merchants from Turkey and have an exhibit at the World's Fair. We think the exhibit of Canadian lumber at the fair is ahead of any country in the world, and we were advised to come on to Ottawa, as it was the greatest lumbering city in Canada, as we hope to build up a trade between this country and our own if reasonable shipping rates can be had. We supply all Syrian Turkey and part of Egypt with lumber, most of which we get from the north of Russia. Every year we sell more than a hundred shiploads of lumber, 35 ship loads being sold in the city of Beirut alone. No Canadian lumber reaches us at all, but we want to get Canadian spruce and pine. We do not require any hard lumber because we have the olive and the oak at home. If we can open a trade with Canada it will be greatly in the interest of both countries."

* * * *

"This season," says a prominent lumber shipper, of Ottawa, "has been the poorest for many years. There has been absolutely nothing doing in the lumber trade to the United States, as well as to the English market, compared with other years. Since, however, an improvement has taken place in the former the fall rush may make up slightly for the summer slackness. The firms across the line who have purchased the cuts for the past season will take all their lumber away but not so quickly as they would if the market had been brisker. Next year's cut in the Chaudiere mills will likely be somewhat curtailed owing to the fact that their yards are full. The piling grounds everywhere around the city have been filling up all season so that several new-properties have been purchased. The depression of this summer may cause a double rebound, which will take all the lumber that can be cut next year on the Canadian side, for the Americans are a queer people, by no means disposed to low spirits, and next season may see a boom in the lumber trade, as well as in all branches of commerce. The large American lumber yards owned by the middle men in different states are pretty well choked, so that they could stand a big boom next summer. Just now

Bronson & Weston have orders from their Stewarton yards for over one-half a million feet of lumber to be shipped part to Rouse's Point, and a great deal to Burlington, Vt. Many of the other lumber firms have immense orders which will take them a long time to fill. In several of the yards there are not nearly men enough to handle the lumber, and many are leaving every day, some for the shanties and others for the country where the crops are being reaped."

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"At the time I was in New York and other United States lumber points the early part of September," said Mr. C. H. Clark, of Barrie, "business men were smarting severely under the financial depression. There was no moving business, and yet nobody was breaking his heart over conditions. The feeling was general that the depression would only be temporary. There would be some after-claps, of course, and some one would be hurt, but so far as lumber is concerned, confidence is strong." "Do you know," continued Mr. Clark, with enthusiasm, "I have been studying conditions in Washington territory and watching developments in that part of the country. I think I know something of that country and believe it has a great future before it. The lumber supply is almost unlimited. As far west as Chicago I found the cedar shingles of Puget Sound, and with the favorable freight rates that are being secured I see no reason why shingles and lumber from that point cannot be laid down at Albany, Buffalo and Chicago with profit to all concerned. Talk about a timber famine; there is supply enough in Washington to last for a few generations yet." I reminded Mr. Clark that so far as the present was concerned lumber, and especially the shingle market, was very rocky in the very part of country he named. Shingle men had been over-producing to such an extent that the bottom would seem to have completely fallen out of prices, and there are some nice stories going of the slaughter that has been made. It is stated as an instance in point that there are lying at the one little port of New Whatcom, Washington, alone, millions of feet of lumber and millions also of shingles, that are at present as they have long been, unsaleable in default of a market.

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Referring to the announcement made in the daily press that the committee on Ways and Means, at Washington, had decided to place lumber on the free list, Mr. H. H. Cook, of the Ontario Lumber Company, said: "As I interpret the message, it does not remove the duty from our lumber. The report says, 'timber, hewn, sawed or unmanufactured.' Lumber is only lumber up to a thickness of two or three inches. Beyond that it is timber. Americans need our timber; they cannot do without it. They need it for their dock buildings and so on, and Canada can supply far better timber than they can. It is very kind of them to take the duty off our timber, which they cannot do without, and by ensconcing themselves behind their limited Michigan lumber resources, exclude our lumber. I consider the move is only one of advantage to themselves and not Canada. Of course there is a large timber export trade done, but the Americans have always profited by it. They exclude our lumber, because they can saw their own. They will not allow us to compete with any industry they themselves can carry on, but just as soon as their timber supply falls short, they are only too glad to remove a duty that will enable them to scoop in our timber." Mr. J. B. Smith, wholesale lumber dealer, said: "The removal of the lumber export duty, if lumber were to be included, was a most desirable change, and would doubtless serve as a stimulus to the trade. It will likely add to the price of lumber per thousand feet, just the amount of the duty, which is \$1 on white pine, and \$2 on red pine" said Mr. Smith. "The export trade has been very dull of late. After paying the export duty, American dealers could not afford to pay Canadian dealers enough to make it pay them to ship if they could find a ready market in Canada. Now, if the duty is paid to the seller instead of the Government, it will have the effect of making Canadian lumbermen anxious to place their lumber on the American market. No doubt the removal of the duty will greatly increase the export trade."

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE feeling is growing that the financial depression that has prevailed in United States lumber markets for a few months will not affect conditions here as seriously as was anticipated a month ago. Reports from across the border indicate that confidence is being slowly restored and with it an increased demand for lumber. At the same time lumbermen are moving cautiously so far as work in the woods for the approaching season is concerned. The city is full of shantymen; a number of camps have been started and the men dispatched, yet a holding-off policy prevails. It is anticipated that if the cut is light in the States, as is likely to be the case, that a number of the unemployed will drift to Canada and there will be a slump in wages for the winter. Besides the disposition is to further wait events and learn how large the demand may be for lumber.

Of men already sent to the woods, there are 85 for the Sheppard & Morse Lumber Co., 40 to the Kippewa for Buell, Hurdman & Co., 46 to the Quinze for the Moore Lumber Co., and 41 for Bronson & Weston. W. C. Edwards & Co. have also made a start in the despatch of an advance gang of six men to Bois Franc.

INDIFFERENT LENGTHS.

A foreman for the firm of R. H. Klock & Co. states that they have taken out 4,600 pieces of square and "waney" timber this season on the Quinze river.

The sum of \$30,000 is said to have been paid by Alex. Gordon, for a 36-mile limit in the Wahnapatæ river, Neeland township, purchased from Andrew McCormick.

An addition to W. C. Edwards & Co.'s mill at the Rideau Falls, on which contractors have been working all summer, will hardly be completed in time for cutting this season.

The statement that there will be little or no square timber cut in the Ottawa district this winter is denied by lumbermen here. The stock at Quebec is already pretty well moved.

The old Perley & Pattee mill at the Chaudiere, now the property of J. R. Booth, and which has been thoroughly remodelled and improved, is now cutting at full blast. It has four large band saws, two Wickes' gates, and two large twin circulars.

OTTAWA, Can., Sept. 26, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

SOME disappointment has been occasioned by the news that the Nicaragua Canal Company has suspended operations and might possibly go into liquidation in consequence of a failure to obtain a further loan of less than \$500,000 for present emergencies. British Columbia lumbermen have been watching with interest the progress of this canal movement, for with its completion would come no doubt an important development of our export trade in lumber. As has been pointed out in your columns on another occasion the journey from Victoria to Great Britain is about 16,000 miles. The proposed Nicaragua canal route would shorten this distance nearly one-half. But another danger has threatened the building of the canal and escape from it may possibly come through the precipitation of the first. Strong effort has been put forth by United States capitalists to obtain sole control of the canal. It would be calamitous to British interests to have this proposed highway controlled absolutely by a foreign power. The canal should be open to the mercantile shipping of all nations and on equal terms. The present crisis will likely mean the employment of British capital in the enterprise and the accomplishing of this end.

COAST CHIPS.

The last week has been rainy, but it is to be hoped our "wet season" has not set in yet.

Both export and local trade are quieter than when I reported last month, but Australia shows signs of improvement.

Messrs. Kirkpatrick & Tupper, shingle manufacturers, of Vancouver, have dissolved. Thomas Kirkpatrick continues alone.

McSween Bros., the Stave River loggers, have sustained a loss of \$600 in the destruction of one of their camp buildings by fire.

The Brunette Sawmill Co. lost part of boom of logs in a storm. The same company are loading the American barkentine Hilo, for Sydney. She will carry about 800,000 feet.

The first fire loss in wood-working establishments, for a long time, occurred to-day, when the Pacific Coast Lumber Co. had their dry kiln destroyed and the shingles with which it was filled. The dry kiln was heated by steam from the sawmill.

The American four-masted schooner William Bowden has been chartered by R. Ward & Co. to load lumber at Victoria for Adelaide, Australia. She will load at the Sayward Mill company's mill. This is the first vessel to load lumber at Victoria for a foreign port.

We are hopeful that the visit of Hon. Mackenzie Bowell to Australia will result in increased business between this province and the Antipodes. Opportunity was taken of the presence of the Minister of Trade and Commerce with us during the month, en route for Australia, to give him a few pointers that may be helpful to him and us in his mission.

NEW WESTMINSTER, B.C., Sept. 25, 1893.

NEW BRUNSWICK LETTER.

[Regular Correspondence CANADA LUMBERMAN.]

BIRCH is a lumber that has experienced a bad year. The larger part of the stock goes to England, and the demand has been poor. The season will close with a considerable stock carried over.

One of the busy places of Nova Scotia this year is Lower Stewiacke, where Dickie's sawmill is located. He has done a large business.

Dating from October 1st, the winter deck load law comes into force. This will reduce the carrying powers of vessels, making nearly \$500 less freight for a vessel of 1,000 tons.

George Prescott, formerly of Eastport, Me., has purchased a large lumbering and milling property at West River, Albert Co., and is making improvements in anticipation of a busy winter.

Alexander & Crowe, of Portauquique, N.S., are putting a shingle machine into their sawmill on the Portauquique river. The mill cuts about 1,000,000 feet of lumber, and 600,000 lath per year.

The first cargo of lumber for South America ever sent from Mirimachi river is leaving here by the Cormorant, being loaded by Wm. Richards. A number of vessels are loading for the United Kingdom.

It has been anticipated that the cut next winter will be very much less than that of a year ago. Wm. H. Murray gives it as his opinion that the cut on the St. John river will probably not be better than one-third of last year. On the American side of the river, where 115,000,000 feet was cut only 21,000,000, possibly 23,000,000, will be cut this year.

The following is given as an estimate of last year's logs still hung up: Stetson, Cutler & Co., 10,000,000; A. Cushing & Co., 5,000,000; G. R. Warner & Co., 9,000,000; W. C. Purves, 1,000,000; W. H. Murray, 10,000,000. The Fredericton Boom Company expect before the season closes to have all the corporation logs in and rafted, a total of between 130,000,000 and 140,000,000 feet. The total cut on the St. John and its tributaries, accepting the above estimate of what is hung up, is about 200,000,000. This is exclusive of Alexander Gibson's of 30,000,000 on the Nashwaak.

ST. JOHN, N.B., Sept. 21, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

CONDITIONS of trade have improved within the month.

The depression is by no means entirely removed, but a more hopeful feeling prevails. Banks have relaxed their purse strings and it is easier to secure discounts than it was a month ago. Lumber and shingles are in larger demand, and though it is too late in the season for business to recover itself, it is expected, that there will be a fair call for lumber this fall. Prices still keep firm. It is hardly safe, however, to say more than this. The old boom is by no means on again, and Congress is still in session. Not only is there the silver problem to solve, but there is also tariff reform to be taken in hands. Commerce at the best is sufficiently uncertain to remain sensitive to almost any change.

BITS OF LUMBER.

Mershon & Co. are purchasers of several million feet of Canadian lumber.

The Arthur Hill Company say that they will not cut a stick of their Canadian holdings this winter.

Bay City suffers a serious loss in the destruction by fire of Eddy, Avery & Eddy's mill plant, which had a capacity of 28,000,000 feet annually. About 150 men are thrown out of employment.

Since the recent large fire of Eddy, Avery & Eddy's sawmill, at Bay city, a number of insurance companies have instructed their local agents to withdraw their lumber and sawmill business,

The Tittabawsee Boom Company has closed its work for the season. It is estimated that the concern has handled 110,000,000 feet. The charter of this Company expires very shortly and will not be renewed.

A fire at Bay City on 13th inst. destroyed 2,500,000 feet of lumber. Salling, Aanson & Co., of Grayling, and Fisher & Co., of Bay City, were the owners. The fire was of an incendiary origin. The loss is \$100,000.

Shipments of lumber by lake from the Saginaw river are rapidly declining. For August they touched bed rock being the smallest since the early days of lumbering in this state. They were less than one-third of the shipments for August of last year.

Colonel Owen Bowers, of intelligence office fame, says that there is very little demand for help of any kind. The very highest wages offered for woodsmen is \$20, against \$28 a year ago, and one hundred men were wanted last year against ten at present.

Michigan lumbermen will be losers by the recent failure of Bell, Cartright & Co., of Cleveland, Ohio. Among these are: Wylie Bros., of this city, and Eddy, Avery & Eddy, of Bay City, aggregating about \$15,000. C. K. Eddy, & Sons have sold large quantities of lumber to Bell, Cartright & Co., but say that every claim had been paid in full.

Michigan mill men, who hold limits in Canada, are making preparations for the winter's work. A gang of 40 men has left Alpena for the Georgian bay district, and the statement is made that Col. A. T. Bliss has five camps running and will put in 15,000,000 feet of logs, which will be brought to the mills here. C. K. Eddy & Sons, who have likewise an interest in Canadian timber, have started camps, and they expect in future to rest largely on Canada for their supplies.

F. W. Gilchrist, of Alpena, intends to erect a shingle mill near his lumber mill the coming winter. He claims that many of the logs brought from Canada have defects which make them useless for lumber, but a considerable portion of them can be used for shingle timber. At present such logs have to be cast adrift, as most of the shingle mills running are above the dam, and the shingle logs cannot be manufactured at them. The new mill will be available in manufacturing what at present is almost worthless timber.

"The largest deal here this season" is reported from Muskegon, in which Gow & Campbell sold to W. B. Hutchinson, of Michigan City, Ind., 3,000,000 feet of lumber. Speaking of the lumber trade to-day, Mr. James Gow said: "We consider this an important deal just at this time. A short time ago we sold a million feet to another Michigan City man. If the Boom Company delivers all our logs this fall we will not be able to cut them before it freezes up. About half our stock has been cut. If they will give us the logs I can sell the lumber and get the cash for it too."

SAGINAW, Mich., Sept. 27, 1893.

CANADA AND THE WOOD PULP TRADE.

THE Gazette, of Niagara Falls, N.Y., is authority for the statement, that there is a movement on foot along the border "hereabouts," among paper and pulp manufacturers, to agitate for the removal of the duty on wood pulp on the part of the United States Government.

A letter in circular form has been sent to a large number of pulp manufacturers in Canada and papermakers in the United States asking for a small contribution, say \$25 a firm, to establish a fund to defray all expenses of such a campaign at Washington. "It is doubtful," says the Gazette, "if manufacturers on this side will make such a move which has its inception in Canada unless certain concessions are granted on the part of the Canadians. In the first place, regarding most of the wood pulp which comes into Canada, the mills are controlled by American capital, and, strange as it may seem on the face of it, the Americans are not eager to have the duty removed."

A well-known pulp manufacturer, who resides not very far away and has a mill in Canada, said: "It is immaterial to us whether the United States Government takes off the duty or not. As far as I am concerned, I would just as soon go on paying duty, for I fear if it was removed the effect would be to demoralize the wood pulp market and the prices would not be maintained. Canadians would then rush over and try to dispose of their surplus stock in our market."

SAVING THE REFUSE.

A WOOD concrete is now being made in Germany from wood waste—chips, shavings and sawdust—mixed with casein, calcined limestone, glycerine, sodium silicate and linseed oil. The composition is pressed in molds and left to harden. When dry, it is hard and solid, and can be sawed, planed and polished. Plain or fancy woods may be taken and, if desired, stained before use.

THE NEWS.

CANADA.

—McLaren's mill at New Edinburgh, Ont., which has been closed down for a month has commenced sawing again.

—Thos. Hale, of Pembroke, Ont., expects to take out about 150,000 cubic feet of timber from the Kippewa district the coming winter.

—Five million feet of lumber to British ports and two cargoes to South America were shipped from St. John, N.B., a fortnight ago.

—Mr. Andrew McCormick has sold thirty-six miles of his timber limits on the Wahnapitae river to Mr. Alexander Gordon, for \$30,000.

—Mickle, Dymont & Co.'s fine new mill at Severn Bridge, Ont., is about ready for operation. The full capacity of the mill will be about sixty to seventy thousand feet a day.

—Michael D. Lynch, of Douglas, Ont., foreman for John McKay, at Eau Claire, is authority for the statement that no lumbering operations will be carried on at that point this winter.

—The Harbor Commissioners, of Montreal, Que., are asking for tenders for 4,000 cubic feet of square pine timber, 5,500 running feet of round and flat pine timber, and 45,000 lineal feet of round and flat hemlock timber.

—A recent gale played havoc with a number of rafts. The Charlton and Niagara were taking a huge raft of 5,000,000 feet from Georgian Bay to Michigan, but were obliged to cut a \$3,000 tow line and the raft went on the rocks in Georgian bay. It was picked up, however.

—The following are current river freight rates: Quebec to Montreal, sawed lumber, pine and spruce, \$1; tamarack, \$1.25 a thousand feet; Quebec to Burlington, Whitehall and Plattsburg, \$1.50; to New York, \$2.50; from Batiscan to Burlington, Plattsburg and Whitehall, \$1.40.

—The number of vessels on the registry books of Canada last year was 7,007, with a tonnage of 964,129, a decrease in the year of 81,364 tons. The vessels registered by provinces are as follows: New Brunswick, 969; Nova Scotia, 2,778; Quebec, 1,404; Ontario, 1,345; P. E. Island, 195; British Columbia, 246; Manitoba, 78.

—A sale of 32 square miles of timber has been made to the Whaley Lumber Company, Huntsville, Ont., by the M. Brennen Company. The property consists of 18 square miles in Bethune Township and 14 miles in Sinclair Township. The limits have been worked for the past five years. The Brennen Company has two more berths left. The price is said to be somewhere about \$20,000.

—Gilmour & Co., of Trenton, Ont., are making preparations for the coming season's operations north of Minden, Ont. They are removing the old timber slide at Stephen's mill, Stanhope, and intend building a new one at that point; they are also intending to improve the waterway to run their logs and expect to utilize the waters of Hollow Lake to carry their logs through the Gull River waters.

—The quantity of square timber measured and culled at Quebec to date is given as follows: Waney white pine, 2,126,038 cubic feet; white pine, 919,364; red pine, 293,718; oak, 993,769; elm, 555,287; ash, 158,159; birch and maple, 140,999. The figures for 1892, during the same period, were: Waney white pine, 2,220,045 cubic feet; white pine, 1,607,469; red pine, 333,269; oak, 807,672; elm, 644,197; ash, 193,060; birch and maple, 425,164. These show a considerable falling off for 1893.

—The Georgian Bay and Lake Huron Salvage Company is the title of a new organization formed for the purpose of protecting sawmill men from dishonest persons who have been in the habit of gathering stray logs, obliterating the marks of the owners, and claiming the logs as their own. The new company intends patrolling these waters, gathering together all broken up rafts, sorting the logs according to their marks, and returning them to their rightful owners. Mr. Charles Beck, of Penetang, is president, Mr. A. Cadenhead, of Midland, manager, and Mr. A. A. Wright, of Toronto, secretary-treasurer.

—Gilmour & Co., of Trenton, Ont., who have extensive timber limits on the Muskoka waters, will solve the difficulty of getting their logs to the mills at Trenton, over "The Height of Land," separating the Muskoka and Trent waters, by the construction of a system of log jacks, combined with a sluiceway, by which the logs may be expeditiously portaged from one water to another. The work is one of considerable magnitude and calling for a large amount of mechanical skill. The entire length of chain necessary to bring the logs into color is 5,780 feet, or nearly 1 1/2 miles of heavy chains. The system of jacks will have a capacity of 10,000 logs per day,

The Wm. Hamilton Mfg. Co., of Peterboro, are contractors for the work.

GENERAL.

—Russia makes about 30,000,000 wooden spoons annually.

—Sibley & Bearer, of Saginaw, Mich., are reported to have sold 8,000,000 feet of lumber recently to eastern parties.

—The receipts of lumber at Buffalo for the season have been 166,647,871 feet, being an increase over 1892 of eleven million feet.

—The sawmill of the Anoka, Minn., lumber Co., was burned a week ago; loss, \$75,000. Four horses were also burned.

—Three different lumber firms—from Portland, Seattle and Tacoma, respectively—are now investigating the feasibility of locating mills at Ocosta.

—A. C. Ladd, a noted lumberman, of New Orleans and a member of the Mechanics', Dealers and Lumbermen's exchange of that city, is dead.

—New York city is receiving a large amount of southern pine lumber. The receipts from Aug. 25 to Sept. 10, were 25 cargoes, scaling, 10,917,052 feet.

—The annual meeting of the United Associations of Lumbermen will be held at Cleveland, Ohio, beginning Tuesday, Oct. 3, at 10 a.m., in the Hollenden hotel.

—It is stated that a young woman is employed as a packer in a shingle mill at Getcheli, Wash., and that she can pack as well and as many shingles as the average man.

—It is reported that the big mill of the North Wisconsin Lumber company, of Hayward, Wis., will shut down at once pursuant to the resolution adopted by the Mississippi Valley Lumbermen's Association, at Minneapolis.

—After two years' trial with pine, oak and greenheart in the Suez Canal Co.'s arsenal basin at Port Said, it has been found that while the pine and oak are almost entirely destroyed by the "taret," or borer worm, the greenheart has suffered no injury whatever. The wood is a native of British Guiana.

—Lumbermen in the vicinity of Seattle, Wash., believe that the Canadian Pacific will get control of the Seattle, Lake Shore and Eastern, perhaps in connection with the Northern Pacific, in which event the Great Northern would have formidable competition in the lumber and shingle business of the Sound.

—Fifty years ago 25 per cent of the logs entered at the large sawmills in the state of Maine was returned to the rivers as waste in the state of slabs. Now there is scarcely a foot of it wasted; modern inventions have found a way to utilize everything, and the surplus seldom gets in advance of the demand.

—The great Manchester (England) ship canal is open at last—at least it is open from Eilesmere port and the full-rigged ship, Fort Stuart, of 2,313 tons, has loaded a cargo of salt for Calcutta, thus practically initiating the foreign trade of the canal. This is the canal in which Canadian lumbermen are not without an interest.

—G. Bixbee, president of the Navarro Lumber Company, Cal., says the failure of the lumber concern is a natural consequence of the over-production that has been going on for a number of years. He suggests as a remedy there should be a combine to limit the output of lumber and regulate prices. Competition is now excessive. His views are also entertained by other lumber dealers.

—At its annual meeting the Mississippi River Logging Company decided to curtail its log input from 330,000,000 feet last year to 275,000,000 feet the approaching logging season. Last year over 300,000,000 feet were carried over, making the total amount on hand at the beginning of the sawing season 630,000,000 feet. This year 175,000,000 feet will be carried over, making the available stock next spring 450,000,000.

—September is said to have been the dullest month ever experienced in lumber in the California district. Receipts have been very small; only 45 lumber vessels have arrived. The Pugot Sound district, including Portland and the Columbia river, has sent 5,359,491 feet, Humboldt bay 1,239,526 feet, and Mendocino county 1,524,069. But 4 mills out of 14 in Mendocino county are running, and these may shut down at any time.

FIRES AND CASUALTIES.

FIRES.

—The sawmill belonging to W. H. Whinster, Strathclair, Man., was destroyed by fire on 19th ult. It is said the loss is covered by insurance.

—A planing mill owned by W. B. Derbyshire, of West Port, Ont., was destroyed by fire a fortnight ago. Loss about \$2,500; insurance, \$1,500.

—Appleyard's sawmill at Keldon, Ont., was destroyed by fire 16th ult.

—Young's sawmill at Warton, Ont., was destroyed by fire the early part of September.

—A. C. Gordon's planing mill, Dutton, Ont., was destroyed by fire the first week of September. Loss about \$5,000; insurance, \$1,000.

CASUALTIES.

—A boy named Haines had one of his fingers cut off by a buzz saw in Cane's factory, Newmarket, Ont.

—Peter Lalonde, of Mechanicsville, Ont., is likely to die from injuries received by the bursting of a butter saw.

—Zephyr Lacasse, East Templeton, Que., was killed by a falling tree when at work chopping on the Du Moine.

—A young man named Lugo had his leg broken in Sheppard & Morse's camp at Bois Franc, being struck with a log.

—A had accident occurred at Conlon's Camp in the Parry Sound district, whereby Moses Poderil had his leg broken in two places.

—A young man named Collins had his leg badly crushed while rolling logs at Sutherland & Innes' mill, Wheatley, Ont. The limb had to be amputated.

—A serious accident happened to a German boy named Bucher, who was trying to put a belt on a pulley in Carruthers & Shaw's shingle mill, Penetanguishene, Ont. The belt slipped and threw the boy on the saw, cutting his forehead, shoulder and arm.

PERSONAL.

John Watt, of the Brunette sawmill, New Westminster, B.C., was married last month to Miss Jessie A. Drummond, a young lady recently arrived from Scotland.

Mr. Allan C. Mackay, of Renfrew, Ont., son of Wm. McKay, lumberman, of Ottawa, has taken to himself a bride in the person of Miss Maggie Wilmot, of the Capital.

The marriage is announced of Miss Florence A. Shaver, daughter of J. A. Shaver, a well-known lumberman, of Ancaster, Ont., to Rev. W. E. Hassard, B.A., of Bruce Mines, Ont.

Miss Mina Hurdman, daughter of Ottawa's well-known lumberman, Mr. W. H. Hurdman, was married a fortnight since to Rev. W. H. Stevens, pastor of the Methodist Church, Grenville, Ont.

R. A. Stark, nominee for the Commons for North Grey, in the Prohibition interests, is a well-known sawmill owner, and is reeve of the township of Derby. He is an active supporter of the Patrons of Industry.

Dr. Mark, of Ottawa, has shipped to White River, a small station on the C.P.R., beyond Port Arthur, a house, 18 by 12 feet in dimensions, built in sections to be used as a vestry and study for a young Methodist minister who is to take charge of a church recently erected there. The nearest sawmill to White River is 300 miles away and the nearest place where lumber is sold is 169 miles distant. The doctor also sends a bell to ring the people to church.

On September 10, Zaida Diana Arnold, beloved wife of Mr. E. B. Eddy, of Hull, died at the family residence, after an illness of some duration. Deceased was highly esteemed for her personal worth and many charitable acts in the community where she had been for so many years a resident. She was a native of Bristol, Vermont, where the remains were interred. The expressions of sympathy to the bereaved husband have been many and marked.

Captain W. O. McKay, well-known to every shantyman in the Ottawa Valley, died at Ottawa, on 18th ult. Deceased came of a historic Scotch family, which mingled with the French by inter-marriage. His grandfather was descended from a Highland clan, and was known as Captain Louis Eustache McKay, who fought among the Loyalists in the Rebellion of '37, and who was afterwards awarded a government pension up to the time of his death. The late Mr. McKay was the son of William Adolphus McKay, a widely-known general merchant, of St. Augustine, county of Two Mountains, and was born on March 4, 1845, leaving him in his forty-ninth year at the time of his death. In 1866 he removed to Ottawa, entering the lumber agency of Renaud Bros., as clerk. Afterwards he became a partner of Mr. Ed. Chevrier, subsequently purchasing ex-Ald. Lauzon's present hotel on Murray street. Some time afterwards he sold out to the present owner, and became proprietor of the Richelieu hotel, Sussex street. His hotel was the mecca of many shantymen, both when coming down from the woods and when looking for engagements to go up. The proprietor was known personally to hem all.

TRADE REVIEW.

Office of CANADA LUMBERMAN, }
September 30, 1893. J

THE GENERAL SURVEY.

THE lumber situation shows an encouraging improvement over the conditions of a month ago. Only the one story of a decided depression could be told then and lumbermen were feeling blue.

Where it was almost impossible, even with good security, to obtain funds to carry on current business a month ago, banks are now loaning money with much greater freedom.

It will not be uninteresting to watch events and study the likely effects of the summer's trade on that of another season. A question for immediate decision is the work in the woods for the approaching winter.

In Canada trade of the month has been fair. The year will not have been a bad one, taking it altogether, though less in volume than was counted on in the early spring owing to the depression in the States.

Ontario lumber trade is little altered. British Columbia is doing a fair trade only. In Quebec and the Maritime Provinces there is a feeling of quietude.

UNITED STATES.

The money stringency that was prevalent in every part of the States a month ago has, in a large measure, disappeared, and with it the complete stagnation that was the only feature of lumber markets at that time.

FOREIGN.

It is not an easy matter to make a diagnosis of the British lumber markets that will possess any lasting qualities. Seemingly a revival of trade will be at hand, but the announcement is barely off the press, before the old dullness has returned.

TORONTO, ONT.

TORONTO, September 30, 1893.

CAR OR CARGO LOTS.

Table listing lumber prices in Toronto, Ontario, including items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table listing yard quotations for various lumber types such as Mill cull boards, Shipping cull boards, Scantling and joist, etc.

HARDWOODS—PER M. FEET CAR LOTS.

Table listing prices for hardwoods like Elm, soft, Hickory, Maple, Oak, red, p'n i, etc.

OTTAWA, ONT.

OTTAWA, September 30, 1893.

Table listing lumber prices in Ottawa, Ontario, including Pine, good sidings, Birch, sq., etc.

QUEBEC, QUE.

QUEBEC, September 30, 1893.

WHITE PINE—IN THE RAFT.

Table listing prices for white pine in the raft, including items like For inferior and ordinary according to average, quality etc., etc.

RED PINE—IN THE RAFT.

Table listing prices for red pine in the raft, including items like Measured off, according to average and quality, In shipping order, etc.

DEALS.

Table listing prices for deals, including items like Bright, according to mill specification, Bright spruce, etc.

BOSTON, MASS.

BOSTON, Mass., Sept. 30.—It is thought that business shows a slight improvement. Prices, however, for pine have declined somewhat.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing prices for eastern pine cargo or car load, including items like Ordinary planed boards, Coarse No. 5, etc.

WESTERN PINE—BY CAR LOAD.

Table listing prices for western pine by car load, including items like Uppers, 1 in., 1 1/2 and 2 in., etc.

SPRUCE—BY CARLOAD.

Table listing prices for spruce by carload, including items like Scantling and plank, random cargoes, etc.

LATH.

Table listing prices for lath, including items like Eastern sawed cedar, extra, etc.

SHINGLES.

Table listing prices for shingles, including items like Eastern shaved sawed cedar, 1st quality, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., Sept. 30.—Business remains quiet, with shipments light.

WHITE PINE.

Table listing prices for white pine, including items like Three uppers, 1 1/4, 1 1/2 and 2 inch, etc.

SIDING.

Table listing prices for siding, including items like 1 in siding, cutting up, etc.

1X12 INCH.

Table listing prices for 1x12 inch lumber, including items like 12 and 16 feet, mill run, etc.

1X10 INCH.

Table listing prices for 1x10 inch lumber, including items like 12 and 13 feet, mill run, etc.

1X8 INCH.

Table listing prices for 1x8 inch lumber, including items like 12 and 13 feet, dressing and better, etc.

1X6 INCH.

Table listing prices for 1x6 inch lumber, including items like 12 and 13 feet, No. 1 culls, etc.

SHINGLES.

Table listing prices for shingles, including items like XXX, 18 in pine, etc.

LATH.

Table listing prices for lath, including items like No. 1, 1 1/4, etc.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Sept. 30.—Business is fairly active compared with that of a month ago. Greater

confidence prevails. Sales are of course smaller in volume compared with a corresponding period a year ago, but this is expected in view of the financial depression. There is a healthy demand for lath and shingles and thick, common and box.

WHITE PINE. Uppers, 1, 1 1/2, 1 1/2 and 2 in. 48 00 50 00 56 00 60 00

BOX. 1x10 and 12 in. (No 3 out) 14 00 13 50 1x13 and wider 16 00

SHINGLES. 18 in. XXX, clear... 3 75 18 in. XX, 6 in. clear. 2 75

LATH. No. 1, 4 ft. 2 60 No. 2, 4 ft. 1 95

ALBANY, N.Y.

ALBANY, N.Y., Sept. 30.—Trade has taken a decided upward tendency during the month. It is not such as would, no doubt, have existed at this season of the year had no set-back been given to general business three months ago; nevertheless, there is a very encouraging revival. A shipment of 800,000 feet to the West Indies is reported. Prices keep firm.

PINE. 2 1/2 in. and up, good... \$56 \$50 10-in. common... \$15 \$16

SAGINAW, MICH.

SAGINAW, Mich., Sept. 30.—While there is an improved feeling in most lumber markets for the past few weeks, it cannot be said that Michigan shares in this impression, or fact, whichever it may be, to any large extent. Transactions are few and insignificant. Lumbermen are spending some time discussing the future of prices, and the continued inactivity is due in part to the fact that these people cannot just satisfy themselves what the future will be.

FINISHING LUMBER—ROUGH.

Uppers, 1, 1 1/2 and 1 1/2 in. 45 00 2 in. 46 00 Selects, 1 in. 40 00

SIDING.

Clear, 1/2 in. 24 00 7/8 in. 44 00 Select, 1/2 in. 21 00

TIMBER, JOIST AND SCANTLING.

2x4 to 10x10, 12, 14 and 16 ft. \$11 00 12 ft. 13 00

SHINGLES.

XXX 12 in. C max 3 65 XXX Saginaw 3 49

LATH.

Lath, No 1, white pine 2 45 Lath, No. 2, W. pine, Norway 1 65

NEW YORK CITY.

NEW YORK, Sept. 30.—The actual business of the month in the metropolitan market has been exceedingly light. Various lines of work are coming to an end and sales at the yards are small. Prices are rather demoralized, especially when cash business is in view.

WHITE PINE—WESTERN GRADES. Coffin boards... 20 00 22 00 Box, in. 17 00 17 50

NEWS AND NOTES.

Henry Pyper's new sawmill, at Osgoode, Ont., is now running. Alex. Prear lost two fingers off his right hand, on a jointer at the Cedar mill, at Deseronto, Ont.

Jos. Briel, 18 years of age, was accidentally killed a day or two ago in Messrs. Price Bros.' sawmill at Cape St. Ignace, Que., by a piece of plank striking him in the throat.

A sawmill owned by John McConachie, at Peninsular Portage, seven miles from Huntsville, was burned on 28th inst., also about 500,000 shingles. Loss, \$3,000; no insurance.

S. M. Elliott's sawmill, two and a half miles north of Port Elgin, Ont., was destroyed by fire on 27th ult., also several large piles of cut lumber. Loss, \$2,000; insurance, \$900.

Two men were badly scalded at Braman's sawmills, Three Rivers, Que., by the bursting of a steam pipe. One of them, F. Briere, will probably die. The other, Joseph Alsire, the engineer, will recover, although badly burned.

Charles Spence, who works in Nicols & Son's planing mill, Carleton Place, Ont., was gathering refuse from behind the pony planer, when the knot was thrown out with great force, striking him in the face, and breaking his nose in two places.

The G. J. Brown Manufacturing company, of Sandusky, Ohio, having worked out their limits at Romney, on Lake Erie, have disposed of their logging plant to Mr. John J. Gartshore, Toronto, who now offers it for sale. The plant is said to be in good shape.

E. D. Davison & Sons, of Bridgewater, N.S., in remitting their subscription for CANADA LUMBERMAN, write that lumber business in their district holds its own very well compared with other lines of trade, and prices remain stable and some better than last year.

Ernst Kirchner & Co.'s exhibit at the World's Fair, of sawmill and wood-working machinery, has received from the Jury of Awards two prize medals and seven honor diplomas. No other exhibit in the machinery hall has been awarded so high or many prizes as the manufactures of this firm, whose headquarters are at Leipsic, Germany.

It is reported from Duluth, Minn., that there are 100 cases of typhoid fever at Virginia on the Mesaba range, 30 at Biwaicke, and more or less danger of a typhoid epidemic in all the range villages. At Virginia the water is badly polluted and, moreover, there is no sewerage system in some of the camps, and when the typhoid starts it becomes almost a pestilence.

It was feared that the widespread destruction of standing timber throughout Ontario, caused by unusual windstorms last spring, would have the effect of reducing the price of hardwood for the coming winter. Many of the trees, however, uprooted, still retain sufficient nourishment to preserve their value as number 1 for cordwood or lumber, consequently the timber is allowed to remain unmarked for the present, except in a few isolated cases, till such time as it can be sold at its usual price.

TRADE NOTES.

"LIST No. 17," from Petrie's machinery depot on Front St. west is a pamphlet of 96 pages that ought to have its place on the desk of everyone who has occasion to buy new or second-hand machinery. H. W. Petrie has scored a big success as a dealer in machinery and how broad he has made the field, is told by a glance through the pages of the present book.

A DESTRUCTIVE INSECT.

THE teredo navalis would be a valuable salt water insect if it would only confine its operations to the numerous directes floating in mid-ocean, instead of donating its energies to the destruction of pier and wharf piles. There are more than a score of lumber laden crafts floating around with the currents of the Atlantic reported by the Hydrographic office. One of these directes, loaded with Honduras mahogany, has been afloat for more than three years, and has been reported to the Hydrographic office twenty-six times, and is still a source of danger to shipping. If its timber had been used in a wharf or pier it would have been honey-combed by teredos by this time.

STEAM PUMPS



Duplex AND SINGLE Steam AND POWER Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US



NORTHEY M'FG CO. LIMITED TORONTO - ONT.

A TOOL WITH INTELLIGENCE.

IN an article describing the origin and work of the Hill steam nigger, which it terms "a tool with intelligence," the Timberman, Chicago, says: It must be seen to be appreciated. In the hands of men experienced in its use it performs all sorts of antics. Under a good head of steam its power and rapidity of action is something startling. It will cuff the log around with a blow that will send it through the carriage, or will stick its nose under it and throw it through the roof of the mill. It is the best sort of discipline for refractory or stubborn logs. It will take them off the carriage as well as put them on, turn them over into any desirable position and perform many other wonderful feats. One such "nigger" does just about all the work that two Ethiopians can do, including cant-hooks and rolling block. It is not satisfactorily demonstrated that the steam nigger increases the speed of the mill's operations beyond what is accomplished by two lively men standing on the deck prepared to turn the log when necessary, but the pay of the two men is done away with and there is nobody to swear back at the sawyer when he does not give time to do the work. To see the steam nigger in its best, or worst state, one should visit some of the mills up north where they are cutting up logs which are coming in from land that is being thoroughly cleaned up; logs of all sizes and of all shapes. There the nigger is in its element and most gleefully and enthusiastically performs its work. A stranger in a sawmill is inclined to think that it is some captive from the infernal regions which has been trained thus to do this arduous work.

FORESTRY IN GERMANY.

THE forests of Germany cover 13,900,600 ha. of ground, that is, 25.7 per cent. of the total area of the Empire; this amounts to 0.28, for every inhabitant. According to the ownership, we may distinguish forestland belonging to the State and the Crown, 32.7 per cent.; to various communities, 15.2 per cent.; endowed institutions, 1.3 per cent.; societies, 2.5 per cent.; and private individuals, 48.3 per cent. The forests are stocked to the extent of 65.5 per cent. with evergreens, and 34.5 per cent. with deciduous trees. The individual varieties of timber are represented in percentage of area covered as follows: Firs, 42.6; pines, 22.6; larch, 0.3; beech, 14.7; birch, alder, and aspens, 3.3; tan-bark oak, 3.1; copse, 3.1; and young forest, 6.5. The most prevalent variety is, accordingly, the fir, which occupies more than half the forest-area of Prussia and nearly half of that of the German Empire. In German forestry two methods of procedure in propagation are used. In the one, the trees are raised from the seed; in the other, from shoots from the roots and trunks of full grown trees.

The rents of forest-lands are so adjusted that the income may represent an interest of 2 to 3 per cent. on the capital invested. The state forests of Saxony yield the largest products, the reason for which being essentially that the country is densely populated and possesses a highly-developed industry. It holds, as a general rule, in German forestry that half

of the gross income is required to cover operating expenses. Of late an attempt has been made to raise the net proceeds of the forests by more exhaustive operation. The State forests and most of the private ones are managed by a staff of scientifically and practically trained men.

There are special schools for forestry in Eberswald, Minden, Tharandt, Aschaffenburg, etc.; at some of the universities also, instruction in forestry is given. The forests of various communities are placed under state control. This arrangement is generally recognized in Germany as a necessity proved to be such by a history of their forests. The authority of the Government extends to a general supervision of the property and methods of operation, and to a control of the disposal of the products. Private forestry is to-day almost free from any State supervision and subject to no legal control other than that which the general good requires. The supervision is stricter in the South and more liberal in the north, especially in Prussia. Timber is exported from Germany to France, Belgium, Holland, Great Britain, Switzerland and Denmark, and the export of wooden wares to Russia and America is considerable.

In proper appreciation of the importance of the forests from an economic and climatic standpoint, within the last few decades throughout Germany the conversion of barren belts of land not adapted to agriculture into forest-land has begun; and it is believed that the time when the area of these forests will have been greatly increased now no longer lies in an indefinitely distant future.

OVERSTOCKING OAK.

SOME few years ago the oak manufacturers of the United States were unwise enough to overstock the market for quarter-sawed stock. Wisdom prevailed last year and every mill-man who sawed oak, we are told, profited by it. Hardwood, of Chicago, is afraid that the folly of three years ago is going to be repeated again. If so, dealers are warned to expect trouble. An over-supply of quartered stock this season will surely demoralize the market clear through. It will not only affect quartered, but plain sawed as well in sympathy. With oak cheap, all other hardwood finish will fall off in a corresponding degree. If all the quarter-sawed oak now being rushed out was strictly first-class stock, the danger would not be so imminent, for the amount of such has a natural limit. But experience teaches that whenever there is a rush by the mill men to stock up with any particular kind, the grade is invariably lowered, and advices from mill points show that this is already the case, and that the new stock at many places is not up to last year's in quality. This is to be regretted, as the oak men closed last year with everything in their favor, demand being rather better than supply, and quartered stock selling itself at the mill at remunerative prices. The only demand thus far this spring has been for first-class dry stock, in white oak. Red quartered is not in any sense in extra or even good demand, and should be sawed only as there is an actual call for it.

THE OLDEST TREES.

THE Soma cypress of Lombardy is, we believe, the oldest tree of which there is any authentic record. It is known to have been in existence in 42 B. C. There are, however, many trees for which a vastly greater antiquity is claimed. The Senegal baobabs—some of them—are said to be 5,000 years old.

The bo tree of Anuradhapura, in Ceylon, is perhaps the oldest specimen of another very long-lived species; it is held sacred upon the ground that it sprang from a branch of the identical tree under which Buddha reclined for seven years while undergoing his apotheosis. The oak is well known to be a long liver, and there are specimens still standing in Palestine, of which the tradition goes that they grew out of Cain's staff. The hawthorn, again, sometimes lives to be very old; there is said to be one in Cawdor Castle of an "immemorial age."

The cedars of Lebanon may also be mentioned, and there are, according to Dean Stanley, still eight of the olives of Gethsemane standing, "whose gnarled trunks and scanty foliage will always be regarded as the most affecting of the sacred memorials in or about Jerusalem."

KEEP THINGS SHARP.

ONE of the most important admonitions to the apprentice in woodworking, is to keep the tools as sharp as possible. When things seem to be going all wrong in the work, when the pattern won't come to suit you and the wood seems extra hard, just grind your chisel up in good shape and whet it down to a fine edge, and see if the work don't go better than you expect. We know from experience that this little piece of advice will be worth considerable to some of the boys if they will only follow it, and some may say that the tools ought to last over five minutes without being ground. Perhaps they ought to do this but perhaps they don't, and it will be policy even then to try this simple remedy, only don't overdo the matter and expect them to work by themselves, if you only have them sharp enough, for I have never been able to get them sharp enough for this. Be cautious about using the oil stone, as the writer has seen many tools stoned to death by an injudicious use of the oil stone, when not necessary and then using it in the wrong manner.

TERRESTRIAL GRAVITY.

THE mean density of the earth has been studied by a French physicist, M. Berget, by means of a new instrument—the gravimeter of M. Mascart. This apparatus consists of a U-shaped glass tube, containing a column of mercury balanced against a small quantity of hydrogen gas in such a way that slightly varying effects of gravitation will cause the mercury to move in the tube, as in the thermometer or barometer. By this delicate device M. Mascart believes he has obtained some evidence of a variation in the gravity of the earth. M. Berget made his computations of the mean density from the difference in effect upon the apparatus of the earth's attraction with the attraction of a lake and when the lake had been emptied of its 320,000 tons of water. A number of trials have led the experimenter to

place the mean density of the earth at 5.4, the estimate of M. Cornu, by the method of Cavendish, being 5.5.

IN A HOLE.

ACCORDING to the Engineering News the Columbian Exposition had cost \$23,867,752 to August 7 for construction and administration. The gate receipts to the same date were \$3,447,037, and from concessions \$1,178,546. The daily receipts from all sources are about \$80,000, and the average daily expenses \$15,000, leaving a net daily revenue of \$65,000. The auditor, in his condensed balance-sheet of July 31, charges to construction account a total of \$18,819,198; to general and operating expenses \$4,957,870, and to preliminary organization \$90,674. This does not include the outlay of the States, cities, individuals and corporations of this country and those of foreign exhibitors. These added would swell the cost to about \$35,000,000. The fair will be a loser, considered as an investment, merely.

REAL EFFICIENCY OF THE BOILER.

MUCH importance is attached, and properly so, says a writer in Power, to low uptake temperature in steam boiler tests and steam boiler practice, but the fact must not be lost sight of that the real efficiency of the boiler is the difference between the furnace temperature divided by the former value. A low uptake temperature can be had with very poor efficiency by maintaining a low rate of combustion and a comparatively cool furnace, while a considerable increase in uptake temperature can be afforded if the rate of combustion and furnace temperature is correspondingly increased. It is to this fact that tests with comparatively high uptake temperature, when the reduction of temperature has been by absorption in the heating surface, will give the best results.

PUBLICATIONS.

As an illustration of the money paid to writers as soon as they acquire a reputation, the September Cosmopolitan contains less than eight thousand words for which the sum of sixteen hundred and sixty-six dollars was paid. Ex-President Harrison, Mark Twain and William Dean Howells are the three whose work commands such a price.

Frank R. Stockton has written the story of "How I Wrote 'The Lady, or the Tiger?'" for the next issue of The Ladies' Home Journal, and tells what came of the writing of the famous story and the condition of his own mind at the present time, of the correct solution of the problem whether the lady or the tiger came out of the opened door.

COMING SALES.

In our advertising pages will be found the announcement of Perley & Pattee, of an extensive auction sale, at Ottawa, on January 24 next. The lots to be offered comprise all told 1,338 square miles and are to be disposed of in ten parcels. The limits are located in good pine belts and the rivers and streams from them are in good condition for driving and are all tributary to the Ottawa river.

OAK TANNED BELTING

TORONTO
20 FRONT ST EAST
TELEPHONE 475

THE J.C.M^cLAREN BELTING CO MONTREAL

REAMER LUMBER CO. LTD.

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WHITE PINE

AND

HARDWOODS

41 Park Row New York

DONOGH & OLIVER



WHOLESALE DEALERS IN

LUMBER



OFFICE

Nos. 213, 214 and 215

Board of Trade Building

Toronto, Ont.

Representative Lumber Manufacturers and Dealers

Table with columns: TOWN, Railway, Express, or nearest Shipping Point, NAME, BUSINESS, Power, Style and Daily Capacity. Lists various lumber companies and their locations across Canada.

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

CORRESPONDENCE SOLICITED



Mineral Wool Pipe and Boiler Covering

If you want to save fuel... dry steam at long distance... to prevent condensation... cold water pipes from dripping... freezing

THE best non-conductor is the cheapest covering. Mineral Wool heads the list as a fire-proof non-conductor.

A good pipe covering is one of your best investments. It is false economy to have uncovered pipes, as you are just paying the coal man what the covering man should have, and only ashes to shew for it.

We also carry full lines of Asbestos Goods, and Mineral Wool for fire-proofing, deadening of sound, insulation, etc., etc. Send for Pamphlet.

CANADIAN MINERAL WOOL CO. LTD., 126 BAY ST., TORONTO

3 1/2 Cents a day

That isn't much money, is it?

About twenty-five cents a week or so.

And a man must be pretty hard up if he hasn't that much to spend every week.

Times are hard, they say; but if they are hard now to your family and yourself, what will they be to your family without you?

That's worth thinking about.

We think that no man should be without life insurance when it can be had at such a low rate as 3 1/2 cents a day from the Manufacturers' Life, Yonge Street, corner Colborne, Toronto.

Write to us and we will give you all particulars.

Every Lumberman wants it

35 cents buys it

Scribner's Lumber and Log Book

SAVES TIME SAVES MISTAKES SAVES MONEY

BRIMFUL OF EVERY-DAY, PRACTICAL INFORMATION

Address: THE CANADA LUMBERMAN, Toronto

WANTED AND FOR SALE

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WE WANT ALL KINDS OF HARDWOODS.
Will pay cash. **ROBERT THOMSON & CO.,**
103 Bay Street, Toronto.

FOR HEMLOCK, DIMENSION LUMBER,
hardwood flooring, cedar shingles, piles, sawdust,
etc., write **J. E. MURPHY,** lumberman, Hepworth
station, Ont.

WANTED

BASSWOOD LUMBER, BY CAR OR CARGO.
Offers invited. Address "Baswood," care of
CANADA LUMBERMAN.

LUMBER AND SHINGLE MILL FOR
sale in the Village of Dundalk; this is good
new 50-horse power mill; will run lumber and
shingles at same time; plenty of stock can be
bought in the locality for four or five years at a
reasonable rate. Apply to **JOHN IRWIN,** Brampton,
Ont.

COMMISSIONS

THE ADVERTISER CAN SECURE BIG
prices for black ash, basswood, elm and maple in
New York and surrounding markets, best of references
given. Send lists of stock on hand. No shipment on
consignment. Bona fide orders sent you before ship-
ment.

Address "Commissions," care of **CANADA LUMBER-
MAN.**

LOGGING TRAMWAY FOR SALE

About three miles of 25 lb. T-Rail; 12 Logging
Cars complete, and a Shay Locomotive

**IN GOOD CONDITION, FOR SALE ON AD-
vantageous terms.**

For further particulars apply to

JOHN J. GARTSHORE,
49 Front Street West,
Toronto.

RAILS FOR TRAMWAYS

NEW AND SECOND-HAND STEEL AND
iron rails for tramways and logging lines, from
12 lbs. per yard and upwards; estimates given for
complete outfit.

JOHN J. GARTSHORE,
49 Front St. West, Toronto.

**SAW AND SHINGLE MILL
FOR SALE**

At Proton Station on the G.P.R.

Containing 3 1/2 Acres of Land

Mill capacity from 10,000 to 15,000 feet per day

THE PROPERTY IS SITUATED IN ONE
of the best hardwood districts in the country.

Two small houses, stable, etc., on the property.

Mill can be seen at any time.

Terms easy.

For full particulars apply

235 QUEEN STREET EAST,
Toronto

VALUABLE

PINE TIMBER LIMITS

1338 MILES OF PINE TIMBER LIMITS
to be disposed of by a Public Auction
Sale at Ottawa, Canada, on the

24th of January, 1894

Full particulars furnished on application to

PERLEY & PATTEE,
Ottawa, Canada.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK
cut to exact sizes. Apply for specification,
prices, etc., to

P.O. Box 2144,

NEW YORK.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-
quarter and one-and-a-half inch, strictly firsts
and seconds; also commons. Furthermore, Ash and
Oak squares from one-and-a-half to four inches thick,
Red Birch Lumber, I. and II., all thickness; also Red
Birch Squares 5 x 5 and 6 x 6, ten feet and over long.
Address all particulars as to dryness, quality, quan-
tity on hand and price, to P.O. Box 2144, New York,
N.Y.

... THE ...

**FLINT & PERE MARQUETTE
RAILROAD**

FROM

Port Huron and Detroit

Is the Short Line to

SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)

MT. PLEASANT, CLARE, REED CITY

BALDWIN, LUDINGTON, MANISTEE

AND

MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company
line of Steamships across Lake Michigan.

The line thus formed is a short and direct route from
NEW YORK BUFFALO MONTREAL TORONTO
to **ST. PAUL, DULUTH** and Pacific Coast points.

Write either of the undersigned for Folders, which
contain Maps, Train Schedules and much information
of value to those contemplating a trip to any of the
above-mentioned points.

W. H. BALDWIN, JR., General Manager. **W. F. POTTER,** Gen'l. Sup't.

A. PATRIARCHE, Traffic Manager.

GENERAL OFFICES: - **SAGINAW, MICH.**

Are you Interested

IN FLOUR, MEALS, MILL
PRODUCTS OF ANY KIND,
OR GRAIN?

Then you cannot

Do without the **CANADIAN
MILLER.** A sample copy sent
on application. Address

CANADIAN MILLER, TORONTO

Actual Results

NET PREMIUMS
PAID TO THE

ONTARIO MUTUAL LIFE

on an ordinary Life Policy of \$1,000,
No. 1230 during its first 20 years,
issued for age 37:

In 1872....Paid \$26.57	In 1882....Paid \$13.29
1873.... " 26.57	1883.... " 12.33
1874.... " 26.57	1884.... " 11.09
1875.... " 24.71	1885.... " 11.35
1876.... " 20.65	1886.... " 11.35
1877.... " 19.16	1887.... " 12.19
1878.... " 17.32	1888.... " 12.88
1879.... " 13.02	1889.... " 12.41
1880.... " 12.65	1890.... " 11.91
1881.... " 13.29	1891.... " 11.38

Total Paid in 20 years...\$321.29

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Lumber and Log Book**

Revised, Enlarged, Improved
and Illustrated

The most complete book of the kind ever
published

IT IS DESIGNED EXPRESSLY FOR

**SHIP AND BOAT BUILDERS, LUMBER MERCHANTS, SAWMILL
MEN AND MECHANICS**

Containing Tables for measurement of Scantling, Boards,
Plank, Cubical contents of Square and Round Timber, Saw
Logs, reduced to Board Measure, by Doyle's Rule, Specific
Gravity and Weight of different Woods, Measurement of
Wood and Price Per Cord, Stave and Heading Bolt Table,
Hints to Lumber Dealers and Mechanics, Selection of Stand-
ing Trees, Defects of Timber, Felling Trees, Cubic Measure-
ment, Speed of Circular Saws and Power of same, Growth
of Trees, Cutting Fuel, Splitting Rails, Price Table for Lum-
ber, Standard Log Table, Care of Saws, Filing Saws, Land
Measure, Strength of Timber, Stone Wall Table, Weight of
Flat and Round Bar Iron, Tables of Wages by the Month,
Board or Rent by the Week or Day, Interest Tables, etc., etc.

BY **J. M. SCRIBNER**

Author of "Engineers' and Mechanics' Companion,"
"Engineers' Pocket Table Book," etc.

In preparing the book we have had the advice and assistance of large lumber
dealers throughout the country, and have endeavored to make the book in every way
convenient and accurate.

In all lumber countries, it will be found very convenient, as it comprises much
that is needed by the Lumber Dealer, Mechanic and Business Man, and as a book
of reference is invaluable to all persons dealing in lumber of any kind, buying wood
or casting up wages or interest, who are liable to make mistakes by hasty calculations.

Over One Million Copies have been sold

Sent post-paid to any address on receipt of 35 cents. Address

A. G. MORTIMER

CANADA LIFE BUILDING, TORONTO

35 CENTS
BUYS
**FISHER'S
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—192 PAGES—

The book contains more valuable information and
useful tables for Farmers, Millers, Traders and others
than any similar book of its kind ever published, be-
sides being a complete Ready Reckoner showing the
value of articles or lbs. from one to 500; from a quarter
of a cent to \$2.00. Also tables for Grain, Hay, Rent,
Board, Wages, Interest, etc.

Write for sample copy.

THE CANADIAN MILLER,
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ILLUSTRATED CATALOGUE FREE
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MANUFACTURERS, TORONTO

**NEW
& 2ND**
MACHINERY
ILLUSTRATED CATALOGUE FREE
H.W. PETRIE
TORONTO, CANADA.

WHY

not invest-
gate the cost
to you of
putting a Band
in your mill
in place of
the wasteful
circular saw.
Also the ex-
tra cost to
run the Band?
Quantity and
quality of cut
is not di-
minished.

WHY

should you
hesitate to
go to this
expense? You
secure with
the Band at
least six
boards where
the circular
gives five.
This would
have given
you 20 per
ct. more lum-
ber this year

WHY

when having decided to
change, go to the States
for your machinery. None
surpass the Bands built
by Waterous, Brantford,
Canada--either in qual-
ity, capacity or popu-
larity. The Ten Bands
they sold this season
equals in output any
American firm, when ex-
tent of territory is
considered. They have
given the best possible
satisfaction. Several
purchasers assert that
their daily saving more
than paid the daily cost
of running the entire
mill. You cannot longer
defer the change, nor can
you give a valid reason

WHY

YOU SHOULD NOT

Think-Carefully.

BETTER WRITE WATEROUS TO-DAY

Decide-Wisely.

Act-Promptly.

AND ORDER NOW, SAVING 50%

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-HAND Boilers, Engines and General Machinery for sale by The Canada Machinery and Supply Co., Brantford, Ont., dealers in new and second-hand machinery and supplies:—

- ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 7 in. long, 41 3-in. tubes, in first-class order.
ONE BOILER, TO BRICK IN, 44 IN. DIA. x 11 ft. 8 in. long, 38 3-in. tubes, in first-class shape.
THREE 25 H.P. PORTABLE LOCO. FIRE BOX boilers, in good order.
ONE 20 H.P. RETURN TUBULAR BOILER, to brick in.
TWO 6 H.P. FIRE BOX BOILERS FOR cheese factories.
ONE 12 x 16 SLIDE-VALVE ENGINE, BECKETT'S MAKE.
TWO 9 x 12 SLIDE-VALVE ENGINES, Goldie & McCulloch and Morrison makes.
ONE 6 1/4 x 9 SLIDE-VALVE ENGINE, COPP Bros. & Barry make.
TWO 5 1/2 x 9 SLIDE-VALVE ENGINES, BECKETT'S MAKE.
ONE 6 H.P. ENGINE, UPRIGHT, with 8 H.P. boiler combined on one cast iron base.
ONE 15 H.P. ENGINE, English make.
ONE 14 H.P. LEONARD MAKE ENGINE, nearly new.
ONE 12 H.P. HORIZONTAL PORTABLE ENGINE and boiler on skids; Ames & Co., makers, Oswego, N.Y.

MACHINERY:—

- ONE 24-INCH MCGREGOR, GOURLAY & CO. make heavy surface planer, almost new.
TWO 24-INCH CANT, GOURLAY & CO. MAKE light surface planers, in good order.
ONE GOLDIE & McCULLOCH THREE-SIDE moulder.
ONE ONE-SIDE MOULDER.
TWO 34-INCH WHEELS BAND SAWING machines.
ONE ALMOST NEW VERTICAL SPINDLE boring machine, McGregor, Gourlay and Co.'s make.
ONE ALMOST NEW IRON TOP JIG SAW, Cowan and Co., makers.
ONE GOOD SHAPER.
SIX GOOD SAW TABLES.
ONE NEARLY NEW GOLDIE & McCULLOCH tenoner, with double copes.
ONE WOOD FRAME TENONER IN GOOD shape.
TWO UPRIGHT SWING SHINGLE OR heading machines, with jointers.
ONE ALMOST NEW GENUINE "BAILEY" gauge or handle lathe, with countershaft.
ONE ALMOST NEW SPINNING LATHE FOR making spun metal work, with countershaft.
FOUR DOWELL MACHINES.
ONE 20-INCH WATEROUS CHOPPER COMPLETE with double elevators, equal to new.
FULL PARTICULARS CHEERFULLY GIVEN upon enquiry at the Canada Machinery and Supply Co., Brantford, Ont.

J. D. SHIER

MANUFACTURER OF

Lumber, Lath & Shingles

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Rochester Bros.

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Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given.

Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

36 Rochester St. Ottawa

NORTH SHORE NAVIGATION CO.

Royal Mail Line of Steamers

CITY OF MIDLAND CITY OF LONDON

... FAVORITE... ... MANITOU...

Running in connection with the G.T.R. and C.P.R., will sail during the season of 1893 as follows:

THE CITY OF MIDLAND AND THE CITY OF LONDON will leave Collingwood at 1.30 p.m. every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Meaford. Leave Owen Sound same day at 10.30 p.m., after arrival of C.P.R. train from Toronto, connecting at Wiarton with night train from the south, and stopping at all intermediate ports to Sault Ste. Marie. Returning leave the Soo at daylight, making railway connections at Wiarton, Owen Sound and Collingwood.

The FAVORITE will leave Collingwood Monday and Thursday, at 1.30 p.m. for Parry Sound, Byng Inlet, French River and Killarney, connecting there with line steamers for Sault Ste. Marie. Returning stop at French River, Byng Inlet and Midland, making connection there with steamer MANITOU for Parry Sound and G.T.R. for south and east, and at Collingwood with G.T.R. for Toronto and Hamilton.

Commencing Thursday, May 4th

The MANITOU will make regular trips from Penetanguishene, connecting with trains from the south only at Midland, every Monday, Wednesday, Thursday and Saturday on arrival of G.T.R. from all points south and east for Parry Sound, making connection there with the steamer FAVORITE for Byng Inlet, French River and Killarney, where the latter connects with the line steamers for the Soo.

For tickets and further information see folders, or apply to all agents of the G.T.R. and C.P.R., or to

C. E. STEPHENS, M. BURTON, Sec.-Treas., Collingwood, Mgr. Collingwood.

MILLERS' & MANUFACTURERS' INS. CO.

ESTABLISHED - 1885

32 Church Street, Toronto

The President, James Goldie, Esq., in moving the adoption of the report on the business of 1892, said: I have much pleasure in drawing your attention to the fact that this company has verified, in a marked degree, every expectation set forth in the original prospectus when organized in 1885.

Up to the present time the insurers with this company have made a saving, when compared with the current exacted rates, of \$91,004.20. And in addition thereto bonus dividends have been declared to continuing members amounting to \$21,522.72.

Besides achieving such result, we now also have, over all liabilities—including a re-insurance reserved (based on the Government standard of 50 per cent.—(50%), a cash surplus of 1.93 per cent. to the amount of risk in force.

Such results emphasize more strongly than any words I could add the very gratifying position this company has attained. I therefore, with this concise statement of facts, have much pleasure in moving the adoption of the report.

The report was adopted, and the retiring Directors unanimously re-elected. The Board of Directors is now constituted as follows: James Goldie, Guelph, president; W. H. Howland, Toronto, vice-president; H. N. Baird, Toronto; Wm. Bell, Guelph; Hugh McCulloch, Galt; S. Neelon, St. Catharines; George Pattinson, Preston; W. H. Story, Acton; J. L. Spink, Toronto; A. Watts, Brantford; W. Wilson, Toronto.

HUGH SCOTT, THOS. WALMSLEY, Mgr. and Sec'y. Treasurer.

CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF

THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA: 1893

Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank:

Power, style and capacity of mill:
Class of manufacture:
Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank:

Wholesale or Retail: Class of stock handled:
Post Office: Shipping Point:
Owners of planing mills, sash, door and blind factories, will please fill in following blank:

Power and style:
Class of manufacture:
Post Office: Shipping Point:

(Signed)

P.O.

Province

Address all communications to

DIRECTORY DEPARTMENT, CANADA LUMBERMAN, TORONTO, ONT.

REGISTERED STAR BRAND PORTLAND CEMENT

Our own manufacture and unexcelled. Its use is authorized by Province of Ontario and Toronto City Engineers. Quality GUARANTEED, and always the same.

WORKS AT NAPANEE MILLS The Rathbun Co'y MANUFACTURERS, Deseronto, Ont.

GALT MACHINE KNIFE WORKS

MACHINE KNIVES OF EVERY DESCRIPTION FOR Planing, Moulding and Stave Cutting. Send for Price List. PETER HAY, GALT, ONT.

J. W. MAITLAND - H. RIXON J. G. AINSIE - W. STODART

MAITLAND, RIXON & CO.

OWEN SOUND, ONT.

Saw Millers and Lumber Dealers

All kinds of Building Material kept in stock

WE MAKE A ... SPECIALTY OF LONG BILL STUFF IN ROCK ELM, PINE, CEDAR AND HEMLOCK. Quotations furnished on application

The Rathbun Company

DESERONTO, ONT.

MANUFACTURERS OF

Doors, Sash, Blinds, Stairs

And all kinds of House-Finishing Materials

VENEERED DOORS a specialty

CORRESPONDENCE SOLICITED

J. J. TURNER

Sail, Tent and Awning Maker

251 George St. and 154 King St. PETERBOROUGH

Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed.

Every description of Lumbermen's Supplies and Waterproof Clothing.

WILLIAM FOSTER

Lumber and Commission Merchant

RECEIVER AND FORWARDER OF LUMBER, LATH AND SHINGLES

CORRESPONDENCE SOLICITED

OWEN SOUND, ONT.

PATENTS CAVEATS and TRADE MARKS

Obtained in Canada.

UNITED STATES AND FOREIGN PATENTS A SPECIALTY.

Engineering Drawings Furnished.

W. J. GRAHAM, 71 Yonge St.

Toronto

Lumbermen

YOUR BUSINESS IS HELPED BY ...

ADVERTISING

IN

CANADA LUMBERMAN

WRITE FOR PARTICULARS

Dauntless Shingle and Heading Machine

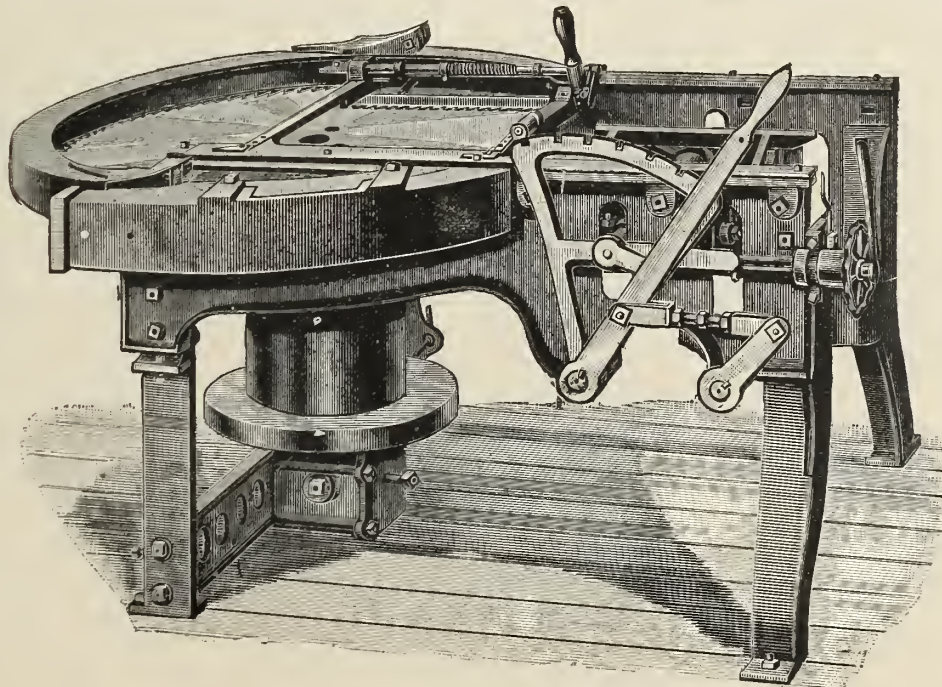
Will make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

Is of Iron throughout, very heavy and rigid, strongly bolted and braced.

THE CARRIAGE

Is very light and strong, made of forged Cast Steel Plate, running on steel ways or tracks. Will take in a block 18 inches wide and 19 inches long, adjustable for 16-inch or 18-inch shingles.



CAPACITY FROM 25,000 TO 50,000 PER DAY

[COPY.]

LINDSAY, May 18th, 1893.

Mr. F. J. DRAKE, Belleville.

Dear Sir,—The shingle machine we bought of you over a year ago is doing well. Last year we averaged over 32,000 shingles per day all through the season. We did not lose 15 minutes' time from all stoppages, and all repairs so far have not cost 50c. We expect to make a still higher average cut this year.

All our other machinery purchased from you is as good as the shingle machine. Your drag saw, with friction drive, cannot be beaten. We run ours 180 strokes per minute; with 6 1/2 ft. saw it would easily make blocks for two shingle machines. The splitter, with balance wheel 4 feet diameter, weighing 1,000 lbs., is perfect and runs without the least jar. The iron frame shingle jointer with 40-inch saw is the only good jointer we ever saw. In fact, all your machinery, line shaft, pulleys, etc., give us the best satisfaction.

We expect to require another mill in a few days, and, if we do, will send you the order for complete outfit.

Truly yours, M. DOVEY.

P.S.—If any one wants to see a good working shingle mill send them to me.—M. D.

F. J. DRAKE

PATENTEE AND ... MANUFACTURER OF SAW, SHINGLE AND LATH MACHINERY BELLEVILLE, ONT.

POROUS TERRA COTTA

Proved by actual and thorough tests to be the best fire-proofing material in use.
 Unequalled for making buildings, vermin, heat, cold and noise proof.
 For partitions, costs no more than brick; weight, one-third that of brick.

SEND FOR CATALOGUE AND PARTICULARS

THE RATHBUN COMPANY :::
 ::: MANUFACTURERS, DESERONTO, ONT.

WHY BAND SAWS BREAK

SIXTEEN REASONS, AND HOW TO AVOID THEM



Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

A book filled with valuable information on the care of band saws. Giving the reasons for breaking; analyzing each reason; giving instructions to dispense with the causes as laid down in each reason; and full details on filing and brazing. The proper styles of hammers to use are illustrated and described, and views of blades showing the blows of the different styles of hammers form an important part of the illustrations. Improper and unequal tension are then treated, and the manner of properly setting irregular teeth is described. In connection with the treatise is a history of the invention, manufacture and use of the saw from its origin to the present time. The work in whole makes an accumulation of information such as has never before been published.

The book is printed on fine paper, good clear type, and is handsomely and substantially bound in cloth. It will be sent to any address on receipt of the price, ONE DOLLAR.

Address— CANADA LUMBERMAN, Toronto, Ont.

F. REDDAWAY & CO.
 MANUFACTURERS OF

BREAKING STRAIN 6 IN. "CAMEL" HAIR BELT ----- 14,181 lbs.
 " " 6 IN. ENGLISH OAK DOUBLE LEATHER ----- 7,522 "

ALSO MANUFACTURERS OF
LINEN FIRE HOSE
 MANCHESTER, ENGLAND. } 57 ST FRAS. XAVIER ST, MONTREAL

H. G. ROSS & CO.

Real Estate, Fire and Life Insurance

SHIPPING AND GENERAL COMMISSION AGENTS

... TIMBER LIMITS AND FARMING LANDS A SPECIALTY. ...

A.B.C. CODE
 CABLE ADDRESS: "ROSS" NEW WESTMINSTER, B.C.

CORRESPONDENCE SOLICITED BOX 273

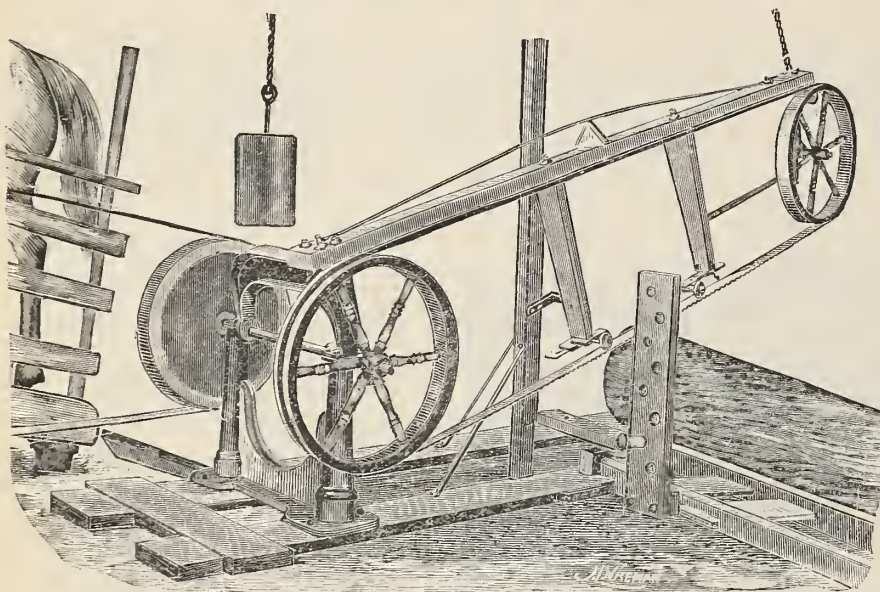
ROBIN & SADLER
 MANUFACTURERS OF

Leather Belting

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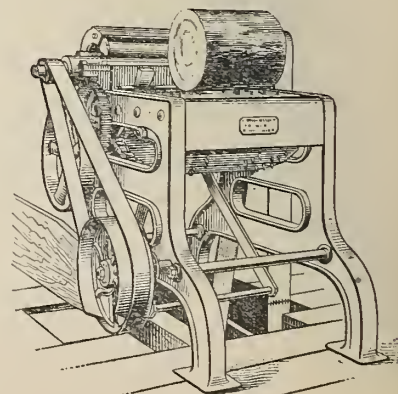


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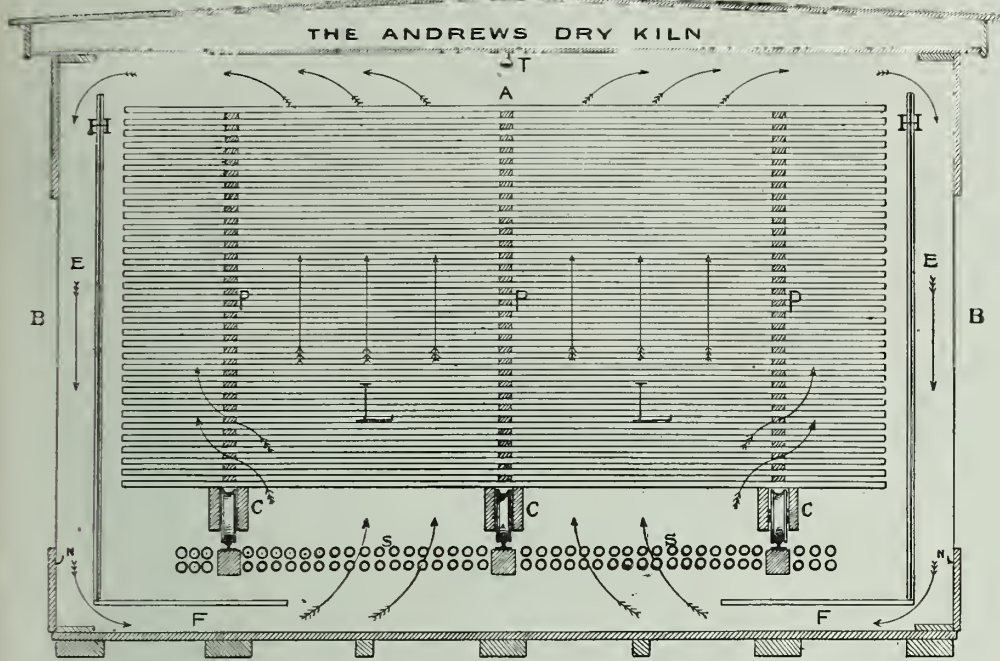
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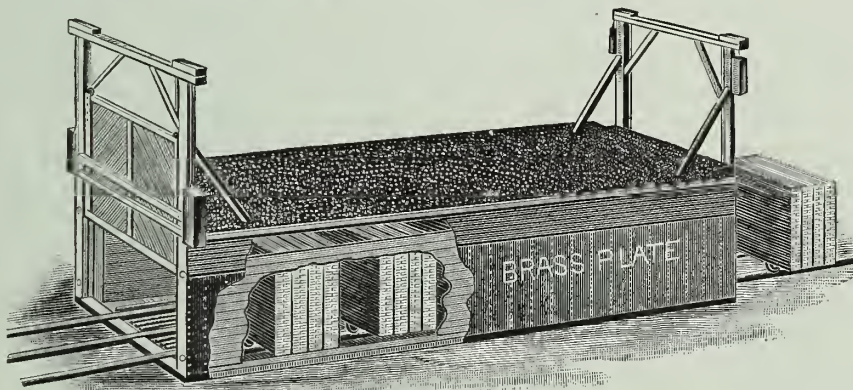
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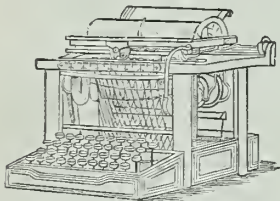
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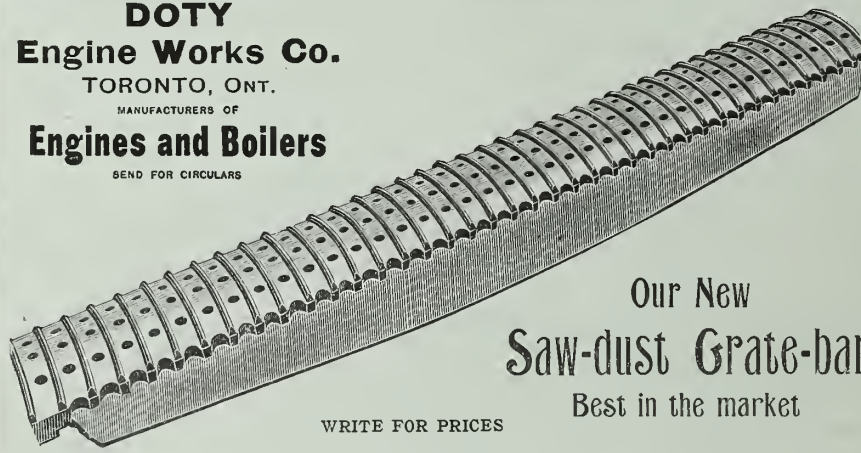
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VOLUME XIV. }
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TORONTO, ONT., NOVEMBER, 1893

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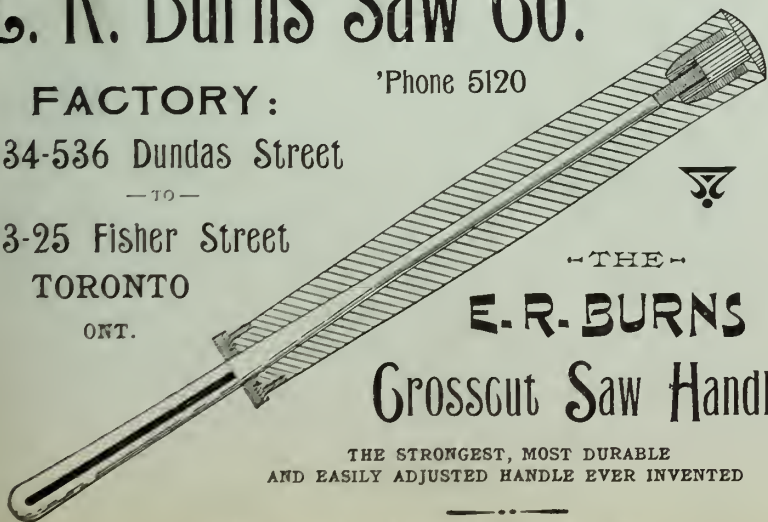
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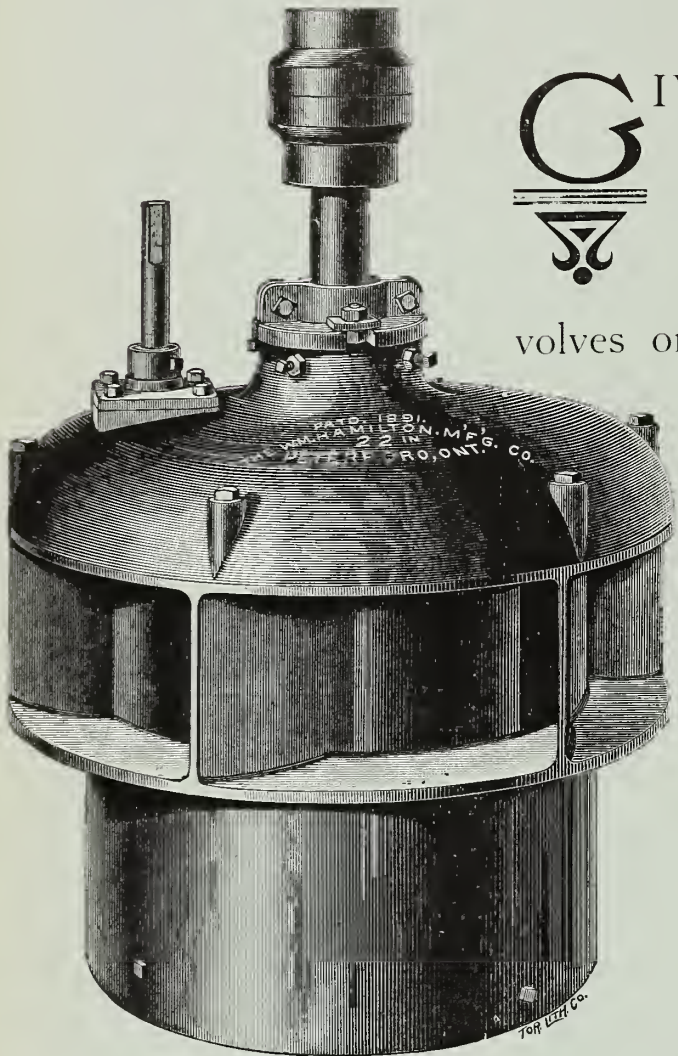
Patent Turbine Water Wheel



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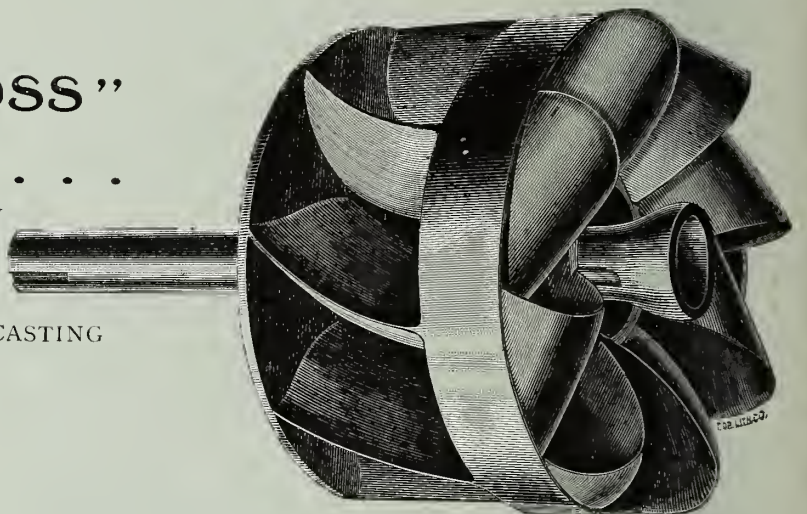
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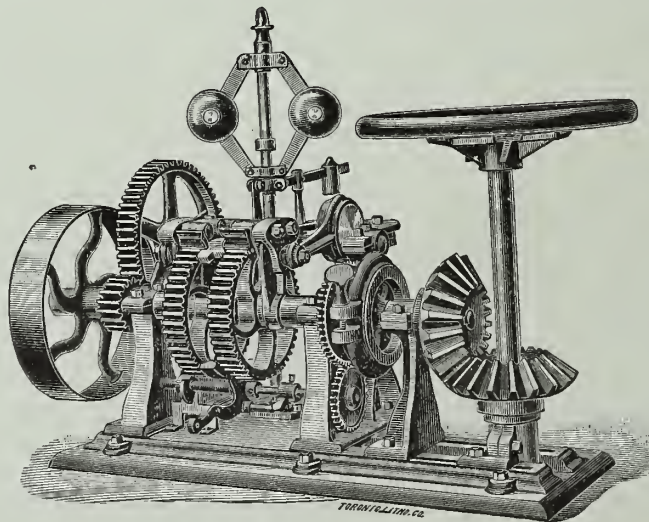
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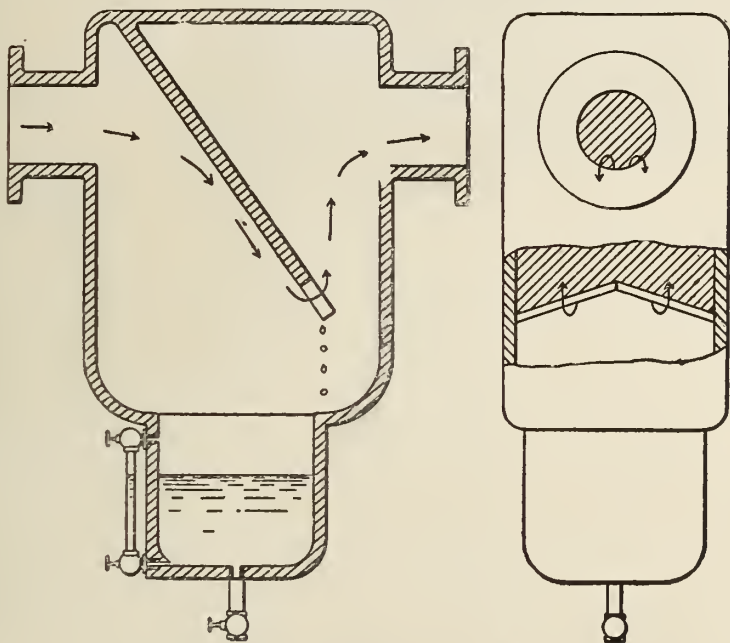
ON SEPARATORS.

THIS is a day for watching the small economies of business. The time was, as the Locomotive says, when manufacturers paid comparatively little attention to the smaller losses that occurred in their mills and factories. Competition was not severe, and it was not considered necessary to keep a watchful eye on the innumerable small leaks through which profits escaped. Competition in all lines of manufacturing has increased tremendously, and the narrow margins on which business must be done make the most trifling losses worthy of serious consideration. This studied economy shows itself in the use of steam; and we find mills fitted out with triple-expansion engines and running at pressures that call for the utmost skill in designing boilers that shall carry these pressures safely. The drips from the pipes are carefully collected and returned to the boiler-house, and heat that otherwise would be wasted is utilized for heating feed-water. As the utilization of waste is increasingly realized, new problems are continually arising and forcing themselves on our attention. Thus, in saving the heat from exhaust steam, it was soon found that, when open heaters are used, the oil particles that are carried along from the engine pass into the feed-water and give trouble in the boilers.

The action of oily or greasy matter in boilers will be understood from the following extract from the Locomotive for March, 1885: "The action of grease in a boiler is peculiar. It does not dissolve in the water, nor does it entirely decompose. Neither does it remain on top of the water; but it seems to form itself into what may be described as 'slugs,' which at first seem to be slightly lighter than the water, of just such a density that the circulation of the water carries them about at will. After a short season of boiling, these 'slugs' or suspended drops seem to acquire a certain degree of stickiness, so that when they

come in contact with the shell and flues of the boiler, they begin to adhere thereto. Then under the action of heat they begin the process of 'varnishing' the interior of the boiler. The thinnest possible coating of this varnish is sufficient to bring about overheating of the plates. We emphasize the point that it is not necessary to have a coating of grease of any appreciable thickness to cause overheating and bagging of plates and leakage at seams. The time when damage is most likely to occur is after the fires are banked; for then, the formation of steam being checked, the circulation of water stops, and the grease has a chance to settle on the bottom of the boiler and prevent the contact of water with the fire-sheets. Under these circumstances a very low degree of heat in the furnace is sufficient to overheat the plates to such an extent that bulging is very likely to occur." Of course there is greater likelihood of trouble with some kinds of oil than with others, animal oils being most troublesome, and mineral oils least so. Various means have been devised for preventing the harmful effect of oil in boilers, and one of the most

common of these is the separator. The object of this appliance is to free the steam of such particles of water, oil or dirt as it may hold in suspension. When the object is to remove entrained water, the separator is placed in the steam-main, near the engine; and when it is used to remove oil, it is placed in the exhaust-pipe between the engine and the heater. There is a great number of makes of separators on the market, but all of them depend for their action on the great mobility of steam and the inertia of solid or liquid particles. For convenience we may divide them into two classes, which we may call momentum separators and centrifugal separators, respectively. Our illustrations of these two types are to be considered merely as diagrams illustrating the principles of the separator, and in no sense as pictures of appliances that are in actual use. Fig. 1 shows the principle on which the momentum separator is based. Steam enters it at one nozzle and leaves it by the other, its general course being indicated by the arrows. Directly across the course of the steam there is a plate of iron called the baffle-plate. This baffle-plate causes the steam to deflect downward, but the oil particles, on account of



FIGS. 1 AND 2.—DIAGRAMMATIC VIEWS OF THE MOMENTUM SEPARATOR.

their momentum, impinge against the plate and collect in drops until they run down and fall into the receiver below. Usually the baffle-plate is not cut square across at the bottom, but runs obliquely across the casing, as shown in Fig. 2, so as to lead the oil-drops to one side and prevent them from falling directly through the main current of steam. The reservoir or catch-basin is provided with a gage-glass to indicate the height of the oil and water in it, and also with a cock for drawing them off. Some provision should also be made for removing the particles of mud and grit that are liable to collect. Fig. 3 shows a centrifugal separator in which the steam is made to circulate spirally around a central core, the centrifugal action so developed throwing the particles of oil and water to the sides of the casing, where they collect and flow down into the catch-basin below, a glass-gage and a cock being provided, as before. The principles illustrated in these diagrams are applied in practice in a great variety of ways.

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AN INDIA RUBBER SOLVENT.

THE demand for both gutta-percha and india rubber is extensive and increasing yearly, owing in a large measure to developments in telegraphy and electrical engineering, besides many uses which are being found for them in minor industries. The present supply of gutta-percha is not sufficient to meet the demand, and it is believed that unless steps are soon taken to preserve the sources of supply there will be an actual dearth of this commodity. This has had the effect of raising its value in the market, and while in 1860 the price of the best quality of refined gutta-percha was \$1,200, by 1890 it had advanced to \$3,900 per ton. An attempt has been made to economize this useful material by combining it with rubber, which is a much cheaper article, varying as it does in price from \$750 to \$1,600 per ton. In a new invention, the two materials are

blended by a cheap process, both being partially dissolved, and afterwards intimately mixed. The main feature of the invention is the employment of a substance hitherto little known or understood, but which exhibits singular properties. This substance acts as a solvent both on gutta-percha and rubber, and combines with them in such a way as to form a united and homogeneous mass, which possesses the qualities of the best gutta-percha, while being superior to it in nonoxidizing properties, elasticity, tensile strength and insulating power, besides being produced at much smaller cost.

BOILER CONNECTIONS.

IT is a pretty good plan to make all your connections for boiler appliances with pretty good sized piping, so as to avoid the chance of having them stopped up with a little scale as is too often

the case. For connecting up water-column, or other combinations of a similar character, use at least inch pipe, and though it may look out of proportion, it is better than having them stopped up and leave you without any means of knowing where your water is in the boiler. Steam gauge connections do not come under this head as they should come out of the steam space of the boiler and there is not the liability of being clogged that there is in water connections, still a little larger than is generally used will do no harm and might be an advantage in some instances.

In piping up boiler fixtures, or any other kind for that matter, it is a pretty good plan to make a free use of "crosses" instead of using "ells," and then plugging up the two free ends.

This gives you a chance to "probe" both ways by taking out the caps and is often very handy, indeed in keeping things cleaned up thoroughly and is a good plan to be used in all kinds of piping that is liable to be stopped up from dirt or scale.

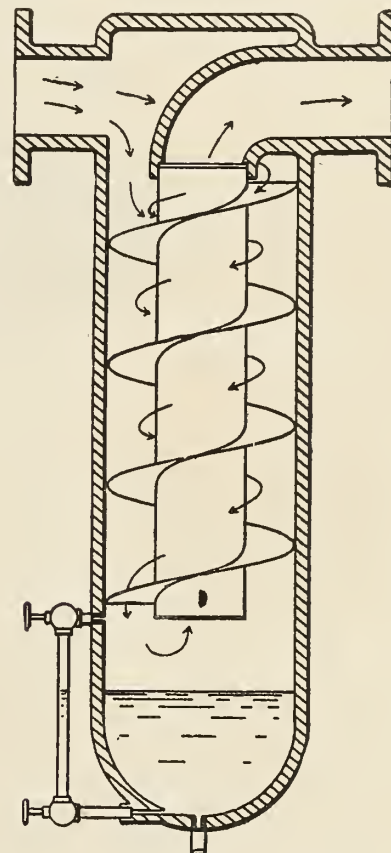


FIG. 3.—DIAGRAM SHOWING THE PRINCIPLE OF CENTRIFUGAL SEPARATORS.

DOWN THE RAINY LAKE RIVER.

VAST TIMBER RESOURCES OF THE DISTRICT.

COMMENCING at Port Arthur, writes Mr. A. M. Weber, and running west along the old Dawson route through and down Rainy Lake river, Rainy river and Lake of the Woods, as the several selections of this big water course is named respectively, following the boundary line between the state of Minnesota and the Dominion of Canada, the country is almost one vast wilderness and contains much to interest lumbermen and miners alike, and to better convey an idea of the country to those who have never been over it, the writer will attempt to describe a trip recently made on a tour of inspection of its timber resources. Our party consisted of four persons. A gentleman seeking recreation by the name of George Salsbury, two Indian canoe voyagers and myself. We started out in two Peterborough canoes, which, by the way are finely adapted for such a trip, and paddled and poled up the Pigeon river which forms the national line to the Pigeon falls, and could proceed no further. We had passed for the most of the way through a buried precipitous rocky country, said to be rich in silver ore to a considerable degree. Here and there could be seen varying distances and points of vantage, groves of pine that had not yet succumbed to the destroying element. At the falls we camped for several days, and I proceeded to explore the country further up.

I concluded to go no further in that direction, but the investigation disclosed a heavily timbered country, with pine of a very good quality, but locked in the valley and on the higher table lands with no outlet except over the Pigeon falls, which, by the way, is 200 feet perpendicular, with a very ragged, rough and rocky stream both ways up and down for miles. It would seem as though this pine would have to stay there for some inventive genius to provide for it the necessary transportation. But the forest fires are now likely to take it up in smoke before it goes out in any other way.

As miners are prospecting all over that country, and fires get away from them quite often, mining men have no use for pine timber. After their log buildings are up they wouldn't give a cent for the balance of the timber even if it stood fifty thousand feet per acre. But the conclusion a practical lumberman would come to after seeing the stock piles of silver ore in that country and the pine situated in that particular place would be that he would not give much for either just at present; at least that is the way it would look to a man up a tree.

After feasting on trout to our heart's content, we returned down the Pigeon and proceeded to Grand Marie and took the route across country from there which leads from one lake to another, and over many portages a distance of about thirty-five or forty-miles to Gunflint lake, which with the exception of North and South lake is the head waters of Rainy Lake river. We passed through a well timbered pine country of a small growth, ten logs per thousand and four log trees, about half Norway, and considerable fine spruce and cedar, which grows on dry land among the pine. The Port Arthur, Duluth and Winnipeg railroad has been built to the National line at Gunflint lake from Port Arthur, and is surveyed and some work done on the gap between there and Ely on the Duluth & Iron Range railroad, with which it is said they intend to connect, and then build from Tower to Hannaford on Rainy river and on to Winnipeg. Our course from here was westerly, passing through a veritable chain of lakes. Occasional detours into the interior showed a well timbered country with common pine, even the islands of which all of the lakes are well studded are heavily pined.

Hunters' island contains about one hundred and forty thousand acres, and is on the Canadian side. It is well covered with pine, and is said to be very rich in silver ore.

We entered Cram lake and run up the Vermilion river about fifty miles to the lake by that name and portaged from the west end into Elbow river and run down that into Pelican and back into Vermilion river near its mouth. Vermilion river proper has not very much pine on it, and what there is is small ten log timber, one-half Norway. It stands in groves here and there

and is all settled upon by the squatters. Elbow river runs through a country well-timbered as also does the Pelican, and in many places timber grows clear down to the banks, and is a better quality, running more to white pine, and larger. None of these streams have ever been driven and are in their natural state, but with a little fixing all can be made navigable for logs. The country generally is quite rough and stony so far as we have gone. We re-entered Rainy Lake river and travelled northwesterly into the arm leading us into Capitogoma lake, which extends east and west for about forty miles and is studded with islands thicker than we have ever seen before, and hardly distinguishable from the mainland. Detours were made to the south up the Moose, Ash and Grassy rivers, that empty into this lake, as well as up the Net lake trail, and the whole country was found to be heavily timbered with white and Norway pine of quite a good quality, about eight logs per thousand on the average, and the country quite level and free from stone. Large groves of white pine of the best quality was found to exist near the head waters of these streams that will run about five logs per thousand and five log trees are occasionally mixed with a big red Norway of prodigious size. The squatters have also invaded this country in great numbers and built cabins all over the country on each quarter section that contained a million or more feet. The streams mentioned are very finely adapted to the driving of logs, only one falls on each near the lake, all of which can be fixed for some \$500 to \$1,500 each. The current is a little faster than would be called gentle, but yet not so rapid as to run water away from logs if they happened to jam. There are also good sized lakes at the head of each that can be utilized as reservoirs.

Passing on to the west end of Capitogoma lake we portaged over to Black bay by an arm or extension of Rainy lake proper. The land as far west as this suddenly changed to a quite level, rich soil, covered with the finest spruce, cedar, ash, elm and poplar, more of a second growth nature. Special mention should be made of the poplar, as it is large, averaging in some places ten to fourteen inches in diameter. It is a very sound timber, clear of limbs for a great length and is used extensively by the Lake of the Woods Milling company at Rat Portage in making flour barrels. It makes a very light, clean and smooth barrel, and as this country for millions of acres in extent is heavily timbered with it, the barrel stock for the future is a certainty.

After investigating the Rainy lake shores on the American side, we proceeded to the inlet of Rainy lake river, which we had left when we entered Capitogoma lake. Here we found Kittle falls which, by the way, is an eight foot drop in a distance of perhaps twenty rods, thus barring navigation from Rainy lake to the big river above in that direction. Not much pine can be seen from the shores of Rainy lake, as the loggers have been busy there for the last dozen or more years, and have pretty nearly cleaned up all the handy haul. Making our way down to the mouth of the lake we find a big river with a twenty-four foot drop in twenty rods, three miles below the mouth, and around which falls is clustered a little village and the Old Hudson Bay Fur Company's trading post. The whole settlement is called Fort Frances, which has two creditable hotels and several churches, all situated on the Canadian side. A canal has been blasted around the falls through solid granite, but never completed, consequently this point is at the head of steamboat navigation for the present, although several raft boats have been built above the falls and are used in towing logs through Rainy lake to this river. We passed on down the stream, which is about 100 rods wide and quite deep and smooth, passing a great many fine farms on the Canadian side, and a few new settlers on the American side. Fifteen miles farther brought us to the mouth of another large stream called the little fork, which is about forty rods wide at its mouth, gradually narrowing up as we ascended it to the small streams that have their source some three hundred miles by the river among the new Mesaba iron mines.

This country is quite level and contains much nice white pine, cedar, spruce and poplar, as well as considerable hardwood, and is quite free from stone. Evidence shows that the water rises and falls something like

twenty-five feet. The banks are high and clean with no sloughs for logs to go astray in. The soil is very rich throughout the whole country here and west of here. After satisfying myself that the head waters of this stream contained a large quantity of pine of good size and quality we returned down stream to a point where big bends in both rivers brought us nearest the Big Fork, a sister stream which empties into Rainy river five miles below the one we were on. We found a portage which led us across towns 65, range 24 w. and 25, and carried us across into Big Fork, passing through several fine groves of timber. We then went up to its head waters, finding the same conditions with the exception of more timber and of a still better quality. The two big rivers are about 400 miles long and drain a territory of about four million acres with the assistance of their tributaries.

We returned down to the mouth of the Big Fork to Rainy river again, where nature has formed the most natural boomage I ever saw, with capacity for as many hundred million feet of logs as will ever be banked to be manufactured, and which we learned was in possession of E. S. Shepard, an explorer of this part of the country of considerable note. We reached Rat Portage on the Canadian Pacific railway, after a voyage of 160 miles on the boat and went home from there on the cars. One will ask the question as to how much pine timber exists in that country. This is a hard question to answer. There are, to be sure, large areas of muskeg swamp and barren wastes of country, but on the whole I should think there was at least seventy-five to a hundred billion feet on the American and Canadian sides of this vast water shed.

SOMETHING ABOUT CAMS.

WHENEVER we wish to get a peculiar motion in any machinery it can usually be best accomplished by the use of cams, in some shape or other, and almost any motion desired can be obtained if we go about it right. In cams cut in rings, or "ring cams," it is necessary to use a conical roll, and the cone is determined by a line drawn from the centre of the ring to the diameter of the roll, a very good angle being twenty-four degrees, or twelve degrees each side of the centre line. These conical rolls are very apt to give trouble, and often cut the sides of the cam, but certain cases demand their use and by giving the rolls ample bearing surface and having them fit the cams very accurately, but if possible they can well be avoided. The simplest form of cam, and the one which will give the best satisfaction in most cases, is the cam which has the roll working on the outside, or what is commonly called a "rim cam," as this is the easiest to make and the best for wearing qualities. In a cam of this kind you can keep the roll in contact with the cam by a spring of the required tension, and there is no back lash to contend with.

But with the cam where the roll plays between two surfaces there must be allowance enough made for the roll to pass through and touch but one side, and this gives a little back lash in spite of all we can do, and this is very often an objectionable feature, too.

A face cam, or one with the cam slot cut in the face of the disk, is bad in several ways; it is hard to cut, and the roll must have freedom enough to roll freely and this introduces the same back lash as before mentioned, so where possible it is best to use the "rim cam."

ATTENTION TO LOOSE PULLEYS.

IT would seem unnecessary to speak of the great need of attention to loose pulleys and other "overhead work" in shops, as everyone must know of the importance of those things, yet they are shamefully neglected, as an incident of the other day testified to me. A countershaft was squeaking and grinding over a lathe that is never oiled (as none of the tools are until they refuse to go), and finally the shaft actually twisted in two, and had not the loose pulleys caught with the cone in such a way as to wedge and prevent their fall, a serious accident might have occurred, as men were working below at the time, but fortunately such was the case, and unfortunately the same thing will be repeated with the new countershaft when it is made, as a lesson is never taken until some one is badly hurt.

AN IMPORTANT AWARD.

THE accompanying cut is a good illustration of the "Andrews" Lumber Dryer, which was last month awarded the Gold Medal at the World's Columbian Exposition in Chicago.

The gentlemen appointed to investigate the different systems now before the public for the drying of lumber and other wood goods, reported as follows:

"The Andrews Lumber Dryer is adjudged worthy of award for the following points of excellence:

(1) For its fire-proof qualities, the sides being brass, primarily serving as condensing surfaces, and the roof being covered with gravel.

(2) For a progressive system of heating, secured by a graduated arrangement of pipes beneath the lumber.

(3) For even circulation of heat upward through the lumber and downward through the hollow walls, thus coming in contact with the brass exterior covering, acting as condensing sheets, the heat thus being nearly even at the top and bottom of kiln with a positive circulation without the aid of blowers or chimneys.

(4) For controlling the condensation so that the moisture appears on the surface until it is entirely expelled from the lumber, the drying being from centre outward.

(5) Economy of heat by means of using the same air continuously with little loss."

The following gentlemen composed the Departmental Committee on awards:

S. Suwa, Secretary Imperial Japanese Commission.

Baron de Marajo, commissioner from Brazil.

G. Neiderlien, scientist and commissioner from Argentine Republic.

Dr. E. Hessler, botanist and commissioner from Paraguay.

Prof. A. Runnebaum, University of Eberswalde, Germany.

Prof. G. Selligren, University of Stockholm, Sweden.

Prof. A. Grebnitzky, University of St. Petersburg, Russia.

Robert Hudson, commissioner from New South Wales, Australia.

Hon. B. L. Butcher, West Virginia, U.S.

G. A. Priest, Census Bureau, Washington, D.C.

Hon. R. C. Joiner, Wisconsin.

M. Fenlon, Kansas.

Dr. B. E. Fernow, Chief Forestry Department, Washington.

O. S. Whitmore, Forest Botanist, Chicago.

Phro Suriya, Siam.

This kiln, of which there are now nearly five hundred in use in the United States and Canada, is controlled in this country by the Dominion Dry Kiln Co., of Toronto, who will cheerfully furnish full particulars as to its workings to anyone making application for same.

THE GANG EDGER.

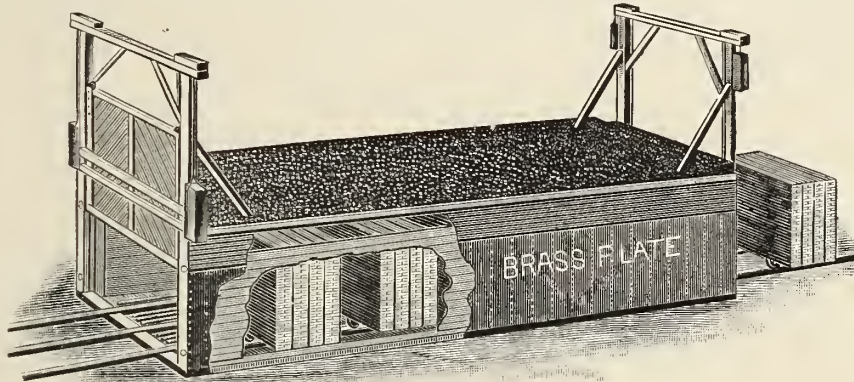
ONCE obtain intelligent control of the main machines in a mill and it may be said that half the battle of mechanical management is mastered. The gang edger, in the judgment of Mr. J. H. Miner, who usually writes with a clear comprehension of mechanical matters, is one of the most important machines of a sawmill. It is, he tells us in an article in the Southern Lumberman, one-half the capacity of a mill when it is a good machine and run as it ought to be. It is too often classed as secondary and has attention only when necessity compels it. Edgers have been much improved lately, yet it is a difficult matter for a man to get just what he wants. Some manufacturers have discarded valuable features simply that they proved a detriment in the hands of an operator.

Take adjustable boxes for the rollers. This is certainly a valuable feature, but as a prominent manufacturer remarked to me, "the first time that the saws got dull, sprung and running crooked, the rollers would be adjusted, throwing the machine out," which is true. Such a machine should not be in the hands of any but a skilled saw-mill foreman. For a time all will work well with solid boxes cast into the frame, but the "punching" of the lumber against the front roller and the pull of the driving-belt wear the two shafts so that they come closer together, and there is no bearings of this class that do not wear. The front idler roller is now discarded by many, and if rightly conducted I think they are an advantage. The principal drawback seems to be the obscuring of the saws, by

which, with the malleable frames a better view could be had, and with sectional idler rolls do 10 per cent. more and better work. Only when the saws are in nice trim does the edgerman have no "chasing" to do until the back rollers take the lumber. Guides are a nuisance on edgers. The shaft becomes dry and the force necessary to shift the saw wears the pins very fast. Soon a one-fourth inch play can be found, and unless they are taken up frequently much lumber is badly edged. I have no objection to good yoke shifters with a taper groove, so that every few months the yokes can be set up to accommodate the wear. Guides often heat the saws. There can be but little throat had to allow the saws to close up to within three inches. Knots, splinter—and in cypress mills, bark—give much trouble. An eight gauge for an eighteen inch saw and seven gauge for a twenty inch saw will do better work without a guide if they are kept in anything like shape. A dull saw pulling against a guide pin only makes matters worse.

I have never seen an edger with as large a pulley as I would want, and I can safely say that the edger costs more in many mills for belting than the remainder of the mill.

In some cases the belts are taken care of, and in one mill I knew a belt to run for several years. How many mills do we see with the edger belt entirely protected from dust and grease? and how many running a good endless belt with a reliable take-up? And yet they can



"ANDREWS" LUMBER DRYER.

be had from every flour-mill or extensive sawmill builder. Rickety tighteners are an abomination. In some mills it requires a monkey-wrench performance in the starting and stopping of the engines, the belt tending away over to one side, running the edge if not arrested. In this particular case the pulley was twenty by twelve inches face, and flat at that. That pulley has worn out \$500 worth of belting, and I venture to say (if the firm hasn't suspended) that it is yet in use. With large crown pulleys and endless belts there is no occasion for such enormous expense.

The majority of edgers now in use cannot take over a 2-inch piece without a delay and the smoke flying from saws or belt. I have run on the light "St. Louis gang edger," 6-inch flitches making 6 x 6 and 6 x 8, and there are very few of the \$1,000 edgers that will do this.

The secret was in a variable feed. That is, I arranged a brake shoe by which I could regulate the feed as desired by friction. Four-inch stuff was as nicely run on that little edger as were 1-inch boards. No one could think of shifting belts, or having a trap of cones, but, with a feed similar to that of a good planing machine, an edger will do from 10 to 25 per cent. more work, which is a clear gain for the mill.

If an edger is kept in order, studding would not need sizing only for very fine work. Take the ordinary practice and 4-inch stuff ranges very nearly from 3¼ inches to 4¼ in width, and in extreme cases worse than this. The fence of many edgers are too far back from the saw. They should be right up to the first saw, and should it have much lead, by "monkeying" with it the end of the board will not fly around, making a nice little crook. A good edger will help to make or keep a good man. He will have time to make his calculations to the best economy and can "shoot" with certainty. A good workman appreciates a good machine, and naturally has the inclination and pride to do good work with it.

VIEWS AND INTERVIEWS.

Beechwood. Beechwood is neglected, especially for use in parquetry floors, for which it is particularly suited. In Germany

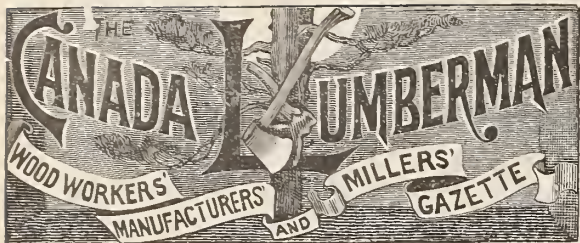
some decorators prefer it to oak for such uses. Mention is made in a recent German article of several oak floors laid some years later than others of beech, which show much greater signs of wear, the oak being much deteriorated, while the beech put down twenty years ago is still sound and the fibre as firm and fresh as if it had been laid but a few years. It is necessary to select the close-grained, narrow-ringed wood grown, so as to secure freedom from sap and to obtain a tough, compact fibre if the best results are to be attained. Though employed at times without comprehensive steaming, the wood is greatly improved by this process, as it tears open the walls of the cells and liberates the sap, and it is generally considered advisable to carry out this treatment as speedily as possible after the timber is felled.

Tree of the Forbidden Fruit.

What was the tree that contained the forbidden fruit, so fatal to the happiness of our first parents? To those who enjoy mental recreation of this kind the theme has always proven one of supreme interest. General (Chinese) Gordon is authority for the statement that the forbidden fruit was a cocoanut; the fruit of a palm tree called coco de mer, the botanical name of which is *Lodicea Seycheldarum*. He made numerous sketches of it during his extensive travels, and has left the most authentic description of it we have, and it was through his writings that public sentiment was called to this singular palm tree. After years of efforts and experiments, the gardeners and botanists have succeeded in finally establishing it in the royal gardens of England. Whether the tree ever grew in the Garden of Eden or not is a matter of speculation of little interest to science or botany. Its present home is on the Seychelle islands, lying to the Northeast of Madagascar, a very considerable distance from the reputed location of the Garden of Eden. The fruit is a double cocoanut, about fourteen inches in length and weighs, on an average, about forty pounds. The Malay and Chinese sailors said it grew on a tree at the bottom of the sea, hence the name, coco de mer. The tree itself has been known to the civilized world only about 150 years.

Unwise Economy.

Just now every one is talking about hard times. Things are panicky, trade is depressed, and no one is sure what disaster is ahead of them. One writer, more optimistic, doubtless, than some others, says: "When we get down to the bottom of things, no panic, no depression of a paralyzing character, can be found. And this is usually the case. People eat about as much, clothe about as well, live in about the usual style, in one year as another. The farmer at the base of industry works as hard and produces as much, and those that manufacture for him and others, and those ranged between the farmer and manufacturer, engage in distribution and professional and personal services, must also be kept right on at work in their several places. Sometimes a period of extravagance intervenes, when people get to buying more than their labor justifies them in consuming, and then dealers lay in large stock and manufacturers gauge production to a demand that cannot last. Such a time we have just passed, and now comes a reaction. But there can be no loss to the material welfare of any considerable fraction of the working body or of the country. People may be led to the other extreme of undue economy, and then business becomes restricted, but the purchasing power of the people as a whole has not been diminished. Its exercise may be deferred to in some degree, but it will not be lost, and hence it is that every period of reaction and depression carries with it the certainty of extremely good times to follow. And so it is of the present case."



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—BY—

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J. S. ROBERTSON, - - - EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

THE WORTH OF WOOD PRODUCTS.

"No business could be done were the goods given away," is a colloquial expression of tradesmen, employed often to denote the extreme dullness of business at particular times. In such times it may not be a case of price or quality; simply there are no buyers.

Not at all times is it want of money that may cause this dearth in business. The seasons may cause it, or changes in custom. One does not buy coats in mid-summer, nor straw hats in midwinter. Usually, however, when business men talk of the apparent impossibility of moving trade they mean that there is not money to move things with. Then comes the hour of trial to the man who may be working on a small capital, or whose credit mark is in the wrong column of Bradstreets. The temptation at these times is to lose money in order to get money. Goods are sacrificed; prices are cut. And when one merchant follows this plan he compels others to adopt a similar policy. All this may occur without one iota of reason, save the pressure of financial obligations.

Lumber has been depressed for several months and sales have been hard to make. Prices had been on the ascendent, but as the depression continues, the question is being asked, will former prices continue to be maintained? Similar rules will operate with lumbermen that we have illustrated as operating with tradesmen generally. Those who can hold out over the dull period will not break prices, but as the tension continues, it becomes hard for the weaker ones to hang on.

It is not without an appreciation of this fact that the LUMBERMAN would enjoin upon all in the trade to test their powers of endurance to the utmost. More, we are inclined to think, than with any other branch of commerce, there is no reason to force any break in the prices of wood products. It may be argued that with the activity of the early spring prices became unduly inflated. Is that the case? Prices advanced, it is true, and remained very firm and fixed. But why not? With some of our natural resources it is difficult to estimate just what these possessions amount to. It is so

with coal and minerals, and products that lie hid in the bowels of the earth.

Forest products are above the ground, and within easy view, so to speak, of the naked eye. The science of lumbering has reached a point where it can be very closely estimated how much standing timber exists in a given district. In many parts of the United States, and in most parts of Ontario, the supply is so far on the short side, that the work of computation and stock-taking is comparatively light. Different, too, to many products of the soil the young pine cannot be planted in the spring time, and keep pace with the ear of corn in reaching maturity. Trees from 100 to 150 years old, as one has patly said, cannot be duplicated at the asking.

Need more be said to show the logical sequence of holding fast to present prices for lumber? Forest lands, as we deal with the forest in this country, must advance.

EDITORIAL NOTES.

FEW men in Canada have shown a more intelligent interest in forestry than Hon. Mr. Joly, of Quebec. A recent proposition to the farmers of his province is that they should cultivate the walnut tree, as has been done in some of the Western States. They require a deep, rich soil and want little attention, after planting.

THE efforts to make life more cheerful and improving for the thousands of men all over the country who spend their winters in the lumber camps continues an important part of the work of the W.C.T.U. and other philanthropic institutions. At the meeting of the National Woman's Christian Temperance Union, recently held in Chicago, Mrs. Upham, superintendent of this department of work, reported that quantities of literature had been distributed, and work done by missionaries, in the lumber camps of Wisconsin, Minnesota, New Hampshire, Maine, Michigan, Vermont, Massachusetts, Pennsylvania, California, Texas and Washington. In Canada similar work is carried on by the W.C.T.U., and also by various church organizations.

A LUMBER cotemporary takes the cheery view of the financial depression that after all "there can be no entire stoppage. People must be fed, clothed and housed; railroads and steamboats must keep moving, and everything made wholly, or in part, of wood will decay or wear out, and must be renewed or repaired, and so long as this condition lasts there will be some movement of lumber." This is a good deal like the way a literary cotemporary announces the title of two articles in a recent issue, (a) "Why do not literary women marry?" (b) "But they do marry?" So it is with lumber. "People must be fed, clothed, housed, etc." But in the meantime, they remain satisfied, perforce, with their present state, and as a result lumber remains dull.

REPRESENTATIVE WEADOCK'S bill in reference to the lumber duty is now before the Ways and Means Committee of Congress. It provides that in case any foreign country shall impose an export duty upon sawlogs, pulpwood or other raw products designed for the use of American mills or factories, import duty upon the product of sawlogs, pulp wood and other forest products of the kinds upon which the export duty is imposed, such as lumber and pulp wood, shall, when imported into the United States from such country, be increased by a sum equivalent to the amount of export duty, and if the article is on the free list a rate of duty equivalent to the export duty shall be imposed upon it. It is observable that the bill is not now, any more than when talked of before, some months ago, giving rise to serious discussion or consideration by the lumber press of the United States. If any importance is attached to the bill the policy is one of a "still hunt."

THE financial troubles of the Nicaragua Canal Construction company, to which reference was made in our British Columbia letter of a month ago, have at last resulted in its bankruptcy. It will be an unfortunate affair if the present difficulties should lead to a permanent abandonment of the project. If it is only a case of the work being transferred from United States capitalists, who have been ambitious to control the scheme, and foreign capital and influence is enlisted, the immediate

trouble will not be an unmixed good. The new route that will have been opened out when the canal is completed ought not to be left in the control of any one nationality. Its commercial possibilities are such that the route needs to be left open to the world free from any possible restrictions or arbitrary regulations. The lumber trade, as we have before pointed out, and especially the lumber interests of British Columbia, have a very lively interest in the construction of this route.

THE announcement is made of the formation of a strong concern at Winnipeg, Man., incorporating Dennis Ryan, of St. Paul, Minnesota, miller; William Travers Creighton, of Rat Portage, miller; William Robert Dick, of Winnipeg, miller; Mary Banning, of the same place, miller; John Alexander McRae, of Niagara Falls; James Malcolm Savage, of Rat Portage, miller; Douglas C. Cameron, of Norman, miller; Walter Ross, of Rat Portage, miller; Richard Hall, miller; and Matthew Brown, miller, for the following purposes, viz.: The purchasing and manufacture of timber into logs, lath and lumber of every description; to manufacture pulp, paper and articles to be made from paper or pulp; to purchase and operate steamboats, tugs, barges or other vessels; to acquire stock in other similar companies as the consideration for goods, wares or merchandise sold to such similar companies in the ordinary course of business, the operation of the said company to be carried on throughout the Dominion of Canada by the name of the Ontario & Western Lumber company (limited), with a total capital stock of \$1,000,000, divided into ten thousand shares of \$100.

THE Tradesman, a journal that gives an intelligent interest to lumber matters leans strongly to the view that the forests of the United States are being rapidly depleted. The United States sells its forest lands at \$2.50 an acre, lumber companies indirectly acquiring a square mile of land for little over \$1,600, while the timber on it is often worth \$20,000. The French government forests return an average profit of \$2.50 an acre annually from timber sales, or 2½ per cent. interest on the value of the land. The United States now owns only enough forest land to provide a continual timber supply to its present population, if forests are managed and lumber used as in Germany. The United States is exactly in the position of a man making large drafts on and using up an immense idle capital, which, if properly invested, would return an interest sufficient for his expenditures. In 1880 the government of Bavaria sent an expert forester to study the timbers of the United States, who stated: "In fifty years you will have to import your timber, and as you will probably have a preference for American kinds, we shall now begin to grow them, in order to be ready to send them to you at the proper time."

IN the construction of railway ties an enormous amount of lumber has been consumed every year. But the fear has been that as iron has taken the place of wood in ship-building, steel or iron would become the substitute of wood products in the manufacture of railway ties. The Railway Review has a paper from a French engineer, in which this notion is discouraged. In the judgment of this expert not much progress has been made in the direction of procuring a satisfactory tie made from steel or iron. Leaving out the question of first cost, the expense of maintenance in metal ties in any line where there is heavy traffic is so great as to be almost prohibitory. The ordinary style of steel tie is hollow with the opening down, but such a tie is very difficult to thoroughly tamp, and while it will answer for a time, it eventually packs the material within it into a solid core which resists tamping and injures the adjacent ballast. The result of experience in the use of metal ties is said to be that no line having heavy traffic at high speed has yet succeeded in using them with any satisfaction. According to this specialist, the ideal metallic tie will be shaped much like the wooden tie, with a flat under surface, or with a prismatic section. But as yet nothing satisfactory has been designed. This tells of a continued heavy drain on the forest resources and good business for a long time ahead for that branch of the lumber trade interested in the cutting of timber for railway ties.



A LUMBER shipper from the Maritime provinces, queried as to the outlook for trade, said: "Spruce boards are worth only \$10 to \$12 in Boston, and lath \$1.75 to \$2—and there is nothing doing. Brokers—my agents there—tell me not to ship any more. They don't want it. The market is sick and disorganized. Some dealers told me that they believed the worst had yet to come, for there is a lot of paper that is simply being renewed. Money is easier in one sense, and the banks are able to discount, but nobody cares to take the paper for fear it will not be met. One man told me he made a sale at sixty days at a cut rate because he wanted the money. When the sixty days expired all the customer could do was to give him a note at four months. This is characteristic of the trade as it has been and is at present."

* * * *

Queer finds in lumber continue to multiply. One of the oddest is seen in the cutting of a shingle bolt from Novar, Muskoka, in the possession of Mr. John Hall, lumber dealer, city, showing a knot of peculiar form. The cutting is 6 x 4, pointed at one end, triangular in shape. The knot is a perfect picture of a female form, with head, arm, breasts and body, showing a red dress with brown cloak and hood or cap to match. It is a most singular piece of natural wood.

* * * *

Alderman Bailey has been spending a month's holidays at Aird's Island at the mouth of the Spanish river, Georgian bay. He says: "The lumber interest in that district is very flat. The reason given for that is the existing depression in the United States. All the mills have vast quantities of stock cut, and at some of the large mills there are miles of lumber ready for shipment. In consequence of this slow demand the mills have already shut down and the hands have gone out to the bush for the winter. The wages of the men have also been cut down, and altogether the outlook is not by any means bright."

* * * *

Thomas Hale, the well-known lumberman, of Pembroke, says that there are excellent prospects of the Quebec market becoming cleared of timber next spring for the first time in many years. As a consequence those dealing in square timber this year would no doubt find a ready sale for it. It was not likely that the market would be flooded, as operations this year would be conducted on a limited scale. He estimated that very little over one million cubic feet would be turned out this season, while in the middle of October last year that amount alone was cut. Operations were slow in commencing this fall. He doubted if his gang on the Kippewa would not be the first to start.

* * * *

W. H. Rowley, secretary-treasurer of the E. B. Eddy Manufacturing company, Hull, says that his firm were out of the lumber trade altogether. They had closed down the sash factory, which was the last remaining link, and had torn out all the machinery, which they intended to sell. The old sash factory building they were turning into a third paper mill for the manufacture of paper from pulp. They were now busy putting in \$63,000 worth of machinery, and would be running as soon as they could possibly get things in order. Both their old mills are running day and night. Last year the firm's wages amounted to \$329,000, and with the new mill they would be very much increased for the coming year.

* * * *

Wm. Little, of Montreal, who has been visiting Chicago, is reported to have said to a representative of the Timberman that his wish was that the present American government would repeal the duty on lumber, not because it would benefit the Canadian market

materially, but viewing the matter from a purely forestry standpoint. Mr. Little participated in the Forestry Congress which was in session. Referring to the present condition of the lumber trade in the Dominion, he said that as the lumbermen of his section depended largely on New York and neighboring territory, the stagnation now existing in that locality affected them most severely, business being extremely quiet. He anticipated an improvement, however, in the early future.

* * * *

The redoubtable Edward Farrar, the boss negotiator of reciprocity treaties between Canada and the United States, has turned up this time in Montreal, and has caused to be sent to the Chicago Tribune a reported report of an interview revealing the nature of his visit to Quebec, and which I notice is being printed by some lumber cotemporaries. He is represented as having been sent to Montreal as the special agent of Secretary Carlisle, of the Cleveland Cabinet. Mr. Farrar states that there is an earnest desire on the part of the Democrats to conclude a treaty with Canada, which would include all natural products. Lumber would naturally be affected by any such change. A meeting of the Cabinet is to be called to consider any suggestions which Mr. Farrar may lay before them. It has to be remembered that all this is a dispatch to a United States paper. Perhaps the Cabinet will confer with Mr. Farrar—perhaps.

* * * *

William Baldwin, an old Ottawa boy, has returned from Oregon, where he has been lumbering for some years. It was fully three hundred miles back from the coast that Mr. Baldwin lived. As for lumber he says there is plenty of it not unlike our Canadian pine found in the Ottawa valley. The Oregon pine which grows to such enormous proportions is a fine wood but hard to saw on account of gum. The valleys of the Rockies, some of which afford the richest of soil for farming, have failed this year to bring forth their accustomed large yield. Wheat, the principal grain crop, has been a complete failure on account of a long drought which lasted during the hottest part of the summer. It is selling for thirty cents a bushel. A large amount of oats is being raised on some of these farms this year. This crop, it is said, is rapidly advancing. Rye and barley are not grown to any great extent. The root crops have also been somewhat of a failure this year on account of the drought. The mining industry is paralyzed so far as silver is concerned. A large number of fine silver mines have had to close down altogether and others are badly shaken. During the summer, however, a number of old gold mines have been re-opened and these are being worked continually. There was a good fruit harvest, Mr. Baldwin says, including all the berries and apples. General business is at a standstill in Oregon, every branch of industry being shaken by the uncertain condition of the American money market.

* * * *

In the ELI page of the September LUMBERMAN there appeared the statement of an Ottawa gentleman purporting to give figures showing the amount of money that had been made in the purchase and sale of timber limits by various Canadian lumbermen. Mr. J. K. Ward, of Montreal, who was named as one of the lucky ones, contradicts the statement so far as he is concerned, in these words: "I am referred to as having bought a limit near Lake Expance during the Mercier regime for three dollars a mile, which I now hold at \$1,000 per mile, etc. As this is entirely at variance with facts please allow me to correct it. About twelve years ago I bought (during the Chapleau administration) at public competition the limit referred to above, for which I paid \$300 per mile, not \$3, as stated. This can be easily verified by referring to the books in the Crown Land Department in Quebec. I may say that I never acquired a foot of Crown Lands either directly or indirectly for myself during the Liberal regime, and whatever the fallen chief may have to answer for, it will not be, as far as I am cognizant, giving away the Crown domain to lumbermen for political or other reasons. On the contrary, the trade has considered that it has been harshly dealt with by the late Government, which raised the ground rent 50 cents, and dues on logs, etc., 30 cents per 1,000 feet higher than paid for the same thing in

Ontario. The law is that all public lands for lumbering purposes are sold at public auction to the highest bidders. Some holders of limits have made money by transferring their licenses. Many, no doubt, have made money, but you can easily see that my deal has not been a bonanza"

* * * *

A young man from Ottawa, who is now clerking at Atkinson's creek, among the wilds of the Gatineau, gives the following picture of shanty life in that district. "Arrived safe and sound, after a tramp of nearly forty miles. We stayed at the Kazabazua Friday night and had breakfast there Saturday morning. Walked fifteen miles on Saturday over the roughest road you or anyone else ever laid eyes on. We got to Ousiers Saturday night, all tired out. Ate a good big supper of fat pork (about three inches fat and quarter of an inch lean.) Went to bed at 8 p. m. and was up at 3.30 a. m. and on the road to the farm some eleven miles, where we arrived at 11 a. m. Sunday. Stayed there till yesterday 6 a. m. and walked to camp fifteen miles with ninety pounds on my back and worked all afternoon in camp. I have not been asked to cut any roads yet and don't intend to if I can help it. I have had three good feeds of pork and beans and they are good. I ate about twice as much as any Frenchman in the shanty. There are forty-two men in camp now with about ten more to come. Sunday was not Sunday at all; it was more like Rockliffe on Saturday. We had two fiddles going all afternoon and evening and the Frenchmen were more than dancing. The foreman is an Irishman and a very fine fellow and comes from the Pickanock. I had to go to the Hibow depot last night for some papers I wanted to use and that added six miles more to the list. Again I was there this morning before you were thinking of getting out of bed. That was before breakfast and we had breakfast at 4.30. It is very cold at nights and mornings, and there has been ice over the little puddles. Our shanty is very cold as it has not yet been filled in with moss. We are drying the moss now and will have it filled in by the last of next week. You may not get this letter for a week or two but you must consider it has to be carried nearly sixty miles by different people going in towards the first post-office. It is very lonesome here."

* * * *

How successful men made their first start in life is a matter of interest to most everyone. I have been learning something of Mr. J. R. Booth, who stands head of the list, it is generally claimed, among the several big lumbermen of the Chaudiere. Thirty-eight years ago Mr. Booth came to Ottawa and with a prescience that has been borne out by subsequent transactions he saw in the great water power of the Chaudiere the possibilities for lumber and manufacturing. In company with Mr. Soper he built his first shingle mill on the site of his present big mill. That was his first venture, and on that small beginning he has reared a colossal fortune, the fruit of downright pluck, indomitable energy, unwearied industry, and the close application of first-class business talents. As an illustration of Mr. Booth's great foresight and faith in the country of his birth, it is related of him that he astonished the lumbermen during the prevalence of hard times between 1874 and 1879. There was a general want of courage among limit holders. They thought that the bottom had dropped out of the lumber market, and it was going to keep that way, and as a matter of course took the earliest opportunity of disposing of their limits. When these limits were put up at auction, Mr. Booth was always there to bid, and the lumbermen were astonished. But Mr. Booth paid no attention to their astonishment. He had faith in the lumber industry, and bought limits right and left, and now they are worth five times the amount he paid for them and in the meantime he has cut all the logs off them he required for his business. In 1881 he threw himself into the building of the Canada Atlantic and in a very short time the road was constructed and at once took a first place amongst Canadian railways. Those who know the man best say the Parry Sound will be in complete running order from the Sound inside of three years. It will be news to some people to know that Mr. Booth is a Canadian, born in Sheffock, County of Waterloo, sixty-five years ago.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THERE is at the present time a fair amount of activity in lumber circles. A considerable quantity of lumber is being shipped both by rail and barge. One shipper, however, is authority for the statement that although trade was good, yet, it is not nearly as brisk as last year. The Export Lumber Co. is doing a brisk business from their Rochesterville yard, and the Shepard-Morse Co. are shipping large orders to Burlington and New York City. Whilst a good many men have already been despatched to the woods the impression is general among the trade that the monetary depression of the past summer will have the effect of reducing the cut in the woods the coming winter. It would appear quite certain that American firms owning limits in Canada will do comparatively little cutting, and already some of the results are observable here in the number of Michigan shantymen who are seeking work.

INDIFFERENT LENGTHS.

Gilmour & Hughson's mill in Hull has been equipped with an electric plant.

The river boats, as the season draws near to an end, are being kept busier than they had anticipated.

The Rathbun Lumber Company, who purchased the lumber in the Perley & Pattee piling ground on each side of the aqueduct are removing it to the Company's piling grounds in Rochesterville.

A number of barges are at the basin here and want to go into the dry dock, but cannot secure ship carpenters competent to do the repairs they are in need of. The work is of a very particular kind, bolting and such, and the barges will have to be sent elsewhere to have it done.

R. Thackeray has carried off substantial honors at the World's Fair having been awarded a diploma for his exhibit of sash, doors, blinds, frames, turning and joiners' work, and in addition a gold medal for the superior and artistic workmanship displayed in preparation of the same.

A large party of citizens, consisting of the Mayor, aldermen, heads of various civic departments, and others partook of the hospitality of Ald. Bingham, a few days ago at that gentleman's lumber camp on the Gatineau some three miles from the mouth of the river. They went for a "snack" of beans cooked in shanty style.

Five large rafts of square timber are laid up for the winter at the head of the Calumet, near Bryson. These rafts belong to A. Barnet, Barnet & Mackie, Klock and A. Fraser. They will come to Quebec early next spring. None of the booms on the upper Ottawa have been closed, so that logs are now running down tributary streams.

A number of improvements have been made lately at Conroy's mills at Deschamps. Instead of allowing carts to load blocks from the mill the refuse wood is all carried away by tramways to a distance where it is piled. The carts now load dry fire wood instead of soaking wet as it used to be. Another great improvement has been carried out in the arrangement of carriers which run from the butting tables outside the mill. By this means the labor of sorting is saved.

OTTAWA, Can., Oct. 28, 1893.

NEW BRUNSWICK LETTER.

[Regular correspondence CANADA LUMBERMAN.]

J. W. KENNEDY, formerly of Buctouche, intends erecting a sawmill, and going into the lumber business, in Newfoundland.

John McLoggan, of Newcastle, on the Miramichi, has entered the lumber commission business in Boston.

James Hayes has purchased a sawmill on St. Mary's river, near Sherbrooke, N.S., and will cut for the British markets. He formerly ran a shingle mill at Charlo, N.B.

Lumbermen of Nova Scotia are finding an improvement in the South America lumber markets. A shipment of 600,000 feet was recently sent from Apple river by Mr. Chas. T. White, one of the largest operators of these parts.

Alfred Dickie, at his steam sawmill, at Lower Stewiacke, is cutting 55,000 feet each 24 hours. The mill is running night and day. The cut this season will run nearly 10,000,000 feet of lumber, besides 8,000,000 laths and about two car loads of box boards.

Young Bros. & Co., of which firm Mr. C. W. Young, of St. Stephen, is a member, the largest lumber operators in Cumberland, Nova Scotia, will make the largest output this year. They will cut 10,000,000 feet of long lumber and 7,000,000 laths at River Hebert and Neville, Nova Scotia.

ST. JOHN, N.B., Oct. 23, 1893.

LITTLE CURRENT.

[Regular Correspondence CANADA LUMBERMAN.]

LUMBERING is not going to be as brisk here as last winter. Howry & Sons, our largest operators, are going to work only two small camps, as they calculate that will clean off the balance of their timber here. They shipped this week most of their lumbering kit, including horses, etc., to Peterboro', as they intend operating on their limits in that vicinity this winter. The steamer City of London, of the North Shore Navigation Co., made a special trip to the Whitefish River after these supplies, and was loaded to her fullest capacity with them. The sleighs belonging to this company have each 12 ft. bunks.

Mr. Treat, foreman of the shingle mill, went to Buffalo last week to get a complete gang of experienced shingle makers to run four machines.

The amount of cedar taken out here on the island this winter will be about as usual. Mr. Collins, foreman for W. L. Herriman & Son, has his camps completed. They will take out over 100,000 pieces of cedar in ties, poles and posts, besides 1,000,000 feet of pine and 2,000 cords of shingle timber.

J. & T. Charlton & Co. are going to take out their usual cut—5,000,000 feet. Their limit is at the mouth of the Whitefish river, and, consequently, they have very little expense driving logs. It is rumored that J. & T. Conlon have secured more pine, and will be taking out a large stock this winter. They have lately sold their season's cut of lumber, and the mills are now running again to the full capacity.

LITTLE CURRENT, Ont., Oct. 18, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE lumbering season is drawing rapidly to a close with the feeling among the trade that the business done is nothing to brag about. The black eye that monetary conditions gave business a few months ago is still causing trouble. Confidence, in part, has been restored, but not to the extent of helping business this season in any large degree. The docks are piled up with lumber and the cut of logs will undoubtedly be affected as a consequence. I understand that Michigan lumbermen owning limits in Canada will do comparatively little in the woods the coming winter.

BITS OF LUMBER.

Hargrave & Co., of Bay City, are in receipt of another large raft of Canadian logs.

The cut at Menominee is said to compare favorably with a corresponding period of 1892.

Col. A. T. Bliss, of Saginaw, will cut 15,000,000 feet in Canada this winter. He also will lumber near Coleman.

J. T. Hurst, of Wyandotte, who is interested with several Bay Cityans, has let contracts for cutting 30,000,000 feet in the Georgian Bay country.

Arthur Hill, of Saginaw, will cut 10,000,000 feet of logs to clean up the timber held by him adjacent to Sault Ste. Marie. He will cut no logs in Canada this year.

Henry Stephens & Co., at St. Helen, have closed down their mill, having exhausted the stock tributary to it. The mill has been in operation about fifteen years.

Pitt & Co., of Bay City, are operating to considerable extent in Canadian logs, having so far brought over about 20,000,000 feet. They are much pleased with the quality of the stock.

C. Merrill & Co., of Saginaw, have not put an axe into the woods as yet, and the head of the firm says they may not put in a log. The firm has over 15,000,000 feet of lumber on hand.

Camps have been started in the Georgian bay territory by the Saginaw Lumber & Salt Company, but this strong concern will only put in enough to stock the company's own mill which will be about 25,000,000 feet.

The Tittabawassee Boom Company has suspended operations for the season, with the smallest output in 30 years, the amount falling far below the smallest predictions at the commencement of operations, and only 15,000,000 feet hung up.

The shipments of lumber this season from the Saginaw valley are 117,553,000 feet less than those of last season, and 220,395,000 feet less than those for the same period in 1890. It is hardly probable that the total water shipments this season will reach 200,000,000 feet.

Rust Bros. & Co. will finish the timber owned by them tributary to Saginaw waters this season. The output of the mills on the Saginaw river with which the Rusts have been connected is estimated at over 1,000,000,000 feet since their first mill was erected here in 1863.

The Ayres Lumber and Salt Co. are in financial difficulties, having executed a mortgage to Eben R. Ayres in trust for the use and benefit of the company's creditors, amounting to \$61,993.13. There is about \$20,000 due to the creditors which is not mentioned in the mortgage, so Mr. Ayres says, and as the assets greatly exceed the liabilities, they will be paid in full. It will continue in operation.

The Democrat, of Cheboygan, says there will be 150,000,000 feet of lumber sawed at that place this season, and possibly 160,000,000 feet, a larger amount than was ever sawed at Cheboygan before. Besides this the output of shingles and lath has exceeded the record, and the first shipments of leather and staves have been made. The Democrat does not think the hard times have struck Cheboygan.

SAGINAW, Mich., Oct. 26, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

OUR shingle and lumber interests have of course suffered from the general depression, but British Columbia shingles have certainly not been used at any time instead of coin for payment of lumbermen's debts. Such, however, according to the West Coast Lumberman, of Tacoma, has been the case across the border in Washington, where, it is stated shingles are being sold at an unnecessary sacrifice, whilst "butchers, grocery men, machine houses, etc., have been taking shingles from their debtors, until it looked as though shingles could pass current in Washington, the same as coon skins did in Indiana." The Lumberman quaintly adds: The rumor that shingles were being thrown in contribution boxes and that ministers were taking them on salary account seems to be unfounded. This was doubtless a yarn started by some man who failed to bring his orthodoxy west when he came.

LUMBER EXHIBITORS.

The annual exhibition of the Royal Agricultural and Industrial Society was held here during the last week of September. All the sawmills and wood-working establishments in this locality were large exhibitors. The Pacific Coast Lumber Company obtained first prize for shingles. The New Westminster branch of the B. C. M. T. & T. Co. exhibited a cedar plank 2 in. thick, 40 in. wide, and 100 ft. long; a fir plank, 1½ in. thick, 52 in. wide, and 100 ft. long, which attracted considerable attention even here, and what would have been said had they been seen at an eastern fair? The Brunette Sawmill Company had some very fine mantels on view which have been sold in eastern Canada and England.

COAST CHIPS.

A practical man suggests that our mills or lumbermen might add to their other manufactures that of Venetian blinds, outside shutters and like goods.

Trade keeps holding its own. The B. S. Mill company loaded another vessel for Australia in September and have one now loading for the same destination.

Sample shipments of rough cedar are being sent to Japan by the Empress of India. If the result proves satisfactory large further consignments will be made, thus adding desirably to Canadian export trade in Japan, which is yet but small.

NEW WESTMINSTER, B.C., Oct. 20, 1893.

PERSONAL.

G. M. Merkley, of the planing mill, Morrisburg, Ont., was married the early part of October to Miss Emma Miekke, of Marietown. Congratulations.

The LUMBERMAN extends congratulations to Mr. H. H. Spicer, the big shingle manufacturer, of Vancouver, B.C., on the occasion of his recent marriage. The fair bride was Miss Anna Matilda Hart, a well-known resident of Vancouver.

Henry B. Frey, a millionaire lumberman, of Minneapolis, has taken to himself, for the third time, a wife in the person of a pretty Norwegian girl of twenty-three, who has acted as his housekeeper for the past three years. The bride is said to be not only remarkably pretty, but also bright and clever, despite her humble birth.

TRADE NOTES.

The Waterous Engine Works Co., of Brantford, Ont., are known to deal liberally with their customers, but when the printer in their advertisement of last month made them intimate that a saving of 50% was to be secured in placing an order for a hand saw now, he was a little too generous. The types should have read 5%, which at the low prices of the Waterous hand saws would mean a decided saving.

THE CANADA LUMBERMAN, \$1.00 per year. Subscribe.

THE NEWS.

CANADA.

—Conroy's mills, Ottawa, Ont., are now lighted by electricity.

—Two lumbermen at Collin's Inlet, Ont., quarrelled, when one man seized an axe and split open the head of the other, death resulting from the blow.

—Thos. Henry Jones, accountant of the Quebec Bank, Que., is dead. He was a son of Horatio Nelson Jones, in his life time a prominent ship-builder and lumber dealer, of Quebec.

—W. H. Macalpine, lumber, Montreal, Que., whose assignment is reported, started in February '91 and never made much headway. He owes \$17,000, and his wife is a creditor for between \$7,000 and \$8,000. Other creditors are Dupuis & Co., \$1,097, and the Rathbun Co., \$908.

—D. Gareau, a lumber dealer of the Upper Ottawa, at Aylmer, Que., has abandoned his estate for the benefit of his creditors. Liabilities about \$5,000. A lawsuit is threatened from the fact that before the abandonment a portion of the estate had been seized and advertized for sale.

—McRae Bros. & Co., of Ottawa, Ont., have a gang of men at work clearing away the debris, in order to build their new mill at Calabogie. Besides the circular saw, they intend to have a shingle and a lath saw. It is expected that the shingle mill will be ready to start in the early part of the winter.

—Pickard & Rowan, of Hepworth, Ont., have, by mutual consent, dissolved partnership and have formed a new firm composed of Thos. Pickard, T. A. Pickard and Wm. Rowan, who have bought a mill which is situated at Owen Sound, also a limit on the Bruce peninsula from J. E. Murphy, of Hepworth.

—A census bulletin recently issued by the Canadian Government shows that the workers in wood in the Dominion number 78,604; in stone, 30,856; in wood and stone combined, 10,201; and in metals, 49,476. The number of carpenters and joiners is 45,760; stone masons, 10,312; and painters and glaziers, 10,202.

—Chew Bros., of Midland, Ont., are cutting lumher for the Sault canal. The mills of Victoria Harbor, Penetang, Midland and Bobcaygeon are all engaged filling orders for square timber for the canal. Inspector Perkins is quoted as saying that there are yet three barge loads to be cut this autumn, and the chances are some one will have to go to the woods, if not British Columbia, before the order can be completed.

GENERAL.

—The saw and shingle machinery houses of Portland, Ore., complain of quiet times and slow collections.

—The damage done by forest fires in some parts of Wisconsin will necessitate a larger cut than was expected.

—One of the leading companies operating in lumber in eastern Oregon is the Oregon Lumber Co., which is owned and conducted solely by members of the Mormon church.

—Up to a fortnight ago, the Menominee River Boom Company had sorted 375,000,000 feet of logs. This is 80,000,000 feet less than the amount sorted up to the same date last year.

—Reports from Albany, N. Y., are to the effect that the lumber market of that city continues flat, and there is little in the situation to warrant a brisk fall business in the two months remaining before the close of navigation.

—Recently men have been looking over the Fire steel river, in Ontonagon county, Mich., with a view of cleaning it out for log driving. It is said that about fifty million feet of pine is tributary to that stream and will, in the near future, be cut and driven down to Lake Superior.

—The H. R. Duniway Lumber Co., of Portland, Ore., has made an assignment. The assets and liabilities are stated to each equal about \$100,000. The business will be continued in charge of a receiver. The cause of the assignment is attributed to the monetary stringency.

—A Swedish statistician has estimated that the extent of forest destroyed by fire in Norrland during the last 10 years is no less than 74,000 hectares—about 185,000 acres. Most of these conflagrations are caused by camp fires, which are left smouldering, while a great many others are due to incendiarism.

—It is estimated that the total amount of lumber sawed this season by the Minneapolis sawmills is 413,000,000 feet against 488,724,624 last year. This shows a reduction of fully one-sixth of the production of last season, which together with the 42,000,000 that was destroyed by the big fire in August, curtails the available lumber in the market at Minneapolis by 24.2 per cent. of last year's figures.

—For the third time a suit has been entered against W. S. Hill, of Minneapolis, for damages arising from the death of

George Kuroy, a four year old boy who was killed by falling lumber. The first time the case was brought up it was thrown out by the grand jury, and the second trial found a disagreement among the jury. The outcome of the present trial is awaited with considerable interest. The boy's parents ask for \$5,000, claiming that the lumber had been piled in a dangerous manner.

—The report of Surveyor-General Grossman for the first nine months of 1893 shows a large falling off in the amount of lumber handled at Bangor, Me., thus far this year as compared with the output during the corresponding period of 1892 and 1891. It is as follows:

	1891	1892	1893
Dry pine.....	11,030,051	13,633,861	11,905,597
Green pine.....	3,837,400	3,438,881	2,799,908
Spruce.....	91,949,693	78,856,934	56,700,089
Hemlock, etc.....	17,753,970	21,360,997	20,259,279
Totals.....	124,571,123	117,290,643	91,664,873

—Notwithstanding the financial depression in the United States there will not be a decrease in rail shipments of either lumber or shingles this year in the Puget Sound District. Up to Sept. 1 the shipments of shingles aggregated something over 900,000,000 against less than 1,000,000,000 for the entire year in 1892. The lumber shipments up to Sept. 1 run over 80,000,000 feet. The shipments during the year 1892 footed up 105,000,000 feet. So it will be seen that the rail trade will show up all right this year. The cargo movement, however, will show a decrease, some say of 50,000,000 feet.

FIRES AND CASUALTIES.

FIRES.

—The sawmill and stave factory of Ament Bros., Brussels, Ont., was destroyed by fire in October. Loss, \$7,000; insurance, \$2,000.

—The planing mill owned and occupied by James McDonald, at Oakville, Ont., was completely destroyed by fire about ten days ago. Loss about \$3,000; insured.

—A sawmill owned by John McConachie, at Peninsular Portage, Ont., 7 miles from Huntsville, Ont., has been burned, also about 500,000 shingles. Loss, \$3,000; no insurance.

CASUALTIES.

—Two men in J. R. Booth's mill, Ottawa, Ont., received severe bruises through being caught in certain unprotected shafting.

—J. W. Asselstine was the victim of an untoward accident while working in the Sash factory at Deseronto, Ont. His left hand came in contact with the saw and the two forefingers were cut off, while the thumb and another finger were also badly scratched.

—Albert Fournier, employed in Conroy's lumber yard at Deschene mills, Ottawa district, fell from the top of a moving tramway lumber car, a wheel striking him on one side of his body breaking a number of ribs and causing other serious injuries from which he died half an hour afterward.

—A peculiar and serious accident occurred at Daniel Henrick's sawmill, Seaforth, Ont. Fred. Rudolph, who was running the saw, fell under the fly-wheel and in its revolutions the flesh between the shoulder blades was as completely roasted as though done with a hot iron. One of the small bones was also broken. His case is serious, but his physician hopes to be able to pull him through.

PUBLICATIONS.

We have received a copy of a pretty song entitled "Deal Gently with the Erring," published by F. W. Helmick, 265 Sixth Avenue, New York.

"The Psychology of Crime," by Henry Wood, is a notable feature of the October Arena, which also contains able contributions on religious, social, political and economic issues. The Arena fully maintains its position as the review which most clearly voices advanced thought and progressive ideas.

The Review of Reviews almost more than any other journal seems to meet the needs of every class of readers. Its contributed articles from many of the ablest writers of the day are always timely. We do not know where a more perfect digest of current affairs is to be found than in its editorial discussions of public events, whilst its summary of the contents of all the magazines is as unique as it is comprehensive and intelligible.

From out of the large number of trade journals, that reach this office, English, American and Canadian, we can easily give the special Fall number of the Canadian Grocer, published by the J. B. McLean Publishing Co., of Toronto, a foremost place. The lithographed cover is handsome, whilst the letterpress and illustrations reflect great credit on printer and engraver. The contents are specially suited to the trades

represented, and embrace a wide range of topics, telling of the painstaking care and ability of the editor.

The record of the *Cosmopolitan Magazine* since the price was reduced to 12½ cents a copy is unprecedented in the history of magazine journalism. After 211,000 copies of the September number had been sold the News companies had orders for 50,000 which they were unable to supply. The publishers do not yet know what their real circulation is, owing to the limited capacity of their presses; but machinery is being put in place which will supply an edition for December exceeding 300,000, and during that month it will be possible to determine just how many *Cosmopolitans* the public will buy.

With its November issue the *Ladies' Home Journal* celebrates its tenth birthday by an attractive jubilee number, which is crowded with good things. Frank R. Stockton tells how he conceived and wrote his famous story "The Lady or The Tiger." Professor H. H. Boyesen writes of "Mr. Howells at Close Range." Rev. Morgan Dix, D.D., of Trinity Church, gives a portrayal of "The Society Woman of To-Day." Amelia E. Barr has a strong article in answering the question "Why do Not Literary Women Marry?" which Octave Thanet cleverly supplements in a brief article, "But They Do Marry." Robert J. Burdette is at his best in pointing out what, in his opinion, is "The Taskmistress of Woman," while Will Carleton suggests his best poems in "Captain Young's Thanksgiving," which is accompanied by a characteristic illustration by Alice Barber Stephens.

THINGS TO REMEMBER ABOUT SHAFTING.

Don't buy light hangers and think that they will do well enough, when your own judgment tells you that they will spring.

Remember that shafting is turned one-sixteenth inch smaller than the normal size.

Cold-rolled and hot-rolled shafting can be obtained the full size.

The sizes of shafting vary by quarter inches up to 3½ inches.

The ordinary run of shafting is not manufactured longer than from 18 to 20 feet.

For line shafts never use any that is smaller than 1 11-16 inches in diameter, as the smallest diameters are not strong enough to withstand the strain of the belts without springing.

The economical speed of shafting for machine shops has been found to be from 125 to 150 revolutions per minute, and for wood-working shops from 200 to 300 revolutions.

A jackshaft is a shaft that is used to receive the entire power direct from the engine or other motor, which it delivers to the various main shafts.

Keep the shaftings well lined up at all times, and this will ward off a break down and avoid a waste of power.

Know that the pulleys are well balanced before they are put in position, as a pulley much out of balance is quite a sure method to throw shafting out of line.

Look at the pulleys and see that they have been bored to the size of the shaft and prevent smooth running.

If possible, apply the power to a line of shafting at or near the centre of its length, as this will enable you to use the lightest possible weight of shafting.

Hangers with adjustable boxes will be found to be the most convenient for keeping the shafting in line.

Keep your drip-cups cleaned, and do not allow them to overflow or get loose.

Have a supply of tallow in the boxes; in case of accidental heating it will melt and prevent cutting; this rule, while good for general use, applies particularly to special cases where there is a supposed liability to heating.

Never lay tools or other things on belts that are standing still, for they may be forgotten and cause a breakdown when the machinery is started.

Don't attempt to run a shaft in a box that is too large or too small, as you will waste time and fail to secure good results.

A loose collar held by a set-screw will cause the collar to stand askew, and it will cut and wear the box against which it runs.

In erecting a line of shafting, the largest sections should be placed at the point where the power is applied. The diameter can then be gradually decreased toward the extremities remote from this point.

Don't put loose bolts in plate couplings, as this will give no end of trouble in cutting, shearing and the wearing away of the bolt holes.

Don't think that because your shafting has been well erected, and you oil it regularly, that it will never need any inspection or repairs.

Don't try to economize in first cost by having long distances between hanging, for a well-supported shaft will always do the best work; short shafts are surest to be straight and remain so.—American Engineer.

TRADE REVIEW.

Office of CANADA LUMBERMAN, J
October 31, 1893-J

THE GENERAL SURVEY.

AS the active season for lumber hastens to a close the disposition is to make the most of all business that comes along. Shipments are hurried forward before navigation closes, and the rail trade is pushed before the difficulties of snow and frost hamper this method of locomotion. For these reasons lumber trade has been fairly active during the month. It is a time, as it were, when the ends of business are gathered up, and a clearing of the decks, to use a nautical expression, takes place. On the Chaudiere we hear of a good deal of shipping, not a little to the United States, despite the depression, and of fair quantities going to South America.

Relatively there will be greater activity in the woods in Canada the coming winter than in the United States, and yet a conservative feeling prevails among lumbermen in regard to the work to be done. Across the border it seems pretty certain that the supply of shanty-men will far exceed the demand.

Lumbermen of the North Shore and Georgian Bay districts have done a rather steady business, affected certainly by the depression across the border, but not as much as might have been expected.

Home trade in Ontario is slow. Little building is doing and the complaint is of money being hard to get.

With an anticipated revival of business in Australia and South America, lumbermen of British Columbia are looking forward to an improving trade. Local trade is only middling

In the Maritime provinces, taking the month through, there has been a good deal of shipping, and lumbermen and millmen are not disposed to complain terribly of the condition of trade. Farnworth & Jardine, in their Liverpool Wood Circular, say of New Brunswick and Nova Scotia spruce and pine deals: "The import has been moderate, viz., 8,401 standards, against 9,185 standards in 1892 and 10,382 standards in 1891 corresponding time; the deliveries have been fair, and the stock remaining over may now be considered moderate; notwithstanding this, prices during the month have slightly given way, although late sales show a little recovery. Pine deals are seldom enquired for."

UNITED STATES.

It is beginning to be felt that the hopes entertained a month ago of a revival of lumber trade in the United States this fall are falling far short of realization. With a likely settlement of the monetary difficulties, with which Congress has been wrestling, business looked up in September, but the revival has not extended through October. At most leading points the complaint is that the distribution of lumber is falling considerably short of that of a year ago. The look now is forward to the spring which is not without some signs of encouragement.

FOREIGN.

Not from any source do we get encouraging news of the British lumber markets. Farnworth & Jardine, of Liverpool, in their wood circular for October say: "We have no improvement to report in the tone of our market, which continues exceedingly dull, and although a fair quantity of the import has gone direct from the quay into consumption, the values realized have been disappointing, and stocks of all articles are quite ample." Of Canadian woods the circular says: "Of waney pine the import has been heavy, but the bulk has gone direct from the quay into consumption; values have been maintained; the stock is sufficient. Square pine has been imported moderately, there is no improvement in the demand, and the late sales have been at lower rates. Red pine has moved off very slowly; there is no change in value, and only large wood is saleable. Oak has come forward too freely; first-class wood continues to move off at satisfactory prices, but the stock of inferior

is accumulating, and is too heavy. Ash has been imported in excess of the demand, prices are easier, and the stock is too large. Pine deals have come forward more moderately; there is no improvement either in the demand or value, and the stock, although considerably less than at the same time last year, is quite sufficient." Denny, Mott & Dickson, in their current London circular tell a similar story to their Liverpool congeners in the trade. They say: "Business during the past month has shewn no tendency to improve, and the underlying feeling for some time past that the turning to the long lane of stagnation must be near at hand, is losing its sustaining power in face of the great blow inflicted on the leading industries of the country by the unhappy strike in the coal trade—a blow which must re-act on the consuming power of the community. Whether the timber trade will be seriously involved in the financial embarrassments which promise to be brought about, should the remaining quarter of the year fail to show some improvement in trade, remains to be seen, but there can be little doubt that, notwithstanding the return to cheap money, the strain is getting increasingly severe on holders of small means, and the outlook is rather ominous, unless a revival of trade is nearer than seems now apparent." From Australia comes word of an easing up of the money market. The monetary stringency, which has been long and severe, is showing signs of improvement. During the period of depression lumber stocks were allowed to run very low, and now a period of stocking up, to some extent at least, is becoming a necessity. Favorable reports are also received from South America, and within the past month several fair shipments were sent from Canada to South American ports.

HARDWOODS.

The trade in hardwoods, particularly in the States is largely in a demoralized condition. The Northwestern Lumberman says: "Reports from the eastern markets indicate that the season's accumulations of the hardwoods are now being urged on the markets in quantity sufficient to cause a severe pressure on prices. The same is true of western markets, though the effect is less pronounced, perhaps, in the west, because there is little buying at any price. The time has come when we may look for a crisis in hardwood prices unless there shall be a sudden and considerable rise in consumptive demand. Hardwood mill operators have held out of the market through the season, hoping that affairs would so improve as to give them outlet and relief. They have waited only to be disappointed, and are now inclined to sell product for what it will bring in order to make their January settlements and avoid carrying their lumber into another year."

TORONTO, ONT.

TORONTO, October 31, 1893.

CAR OR CARGO LOTS.

Table listing various lumber products and their prices, including items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table listing yard quotations for various lumber products, including mill cull boards, shipping cull boards, scantling and joist, etc.

Table titled 'HARDWOODS—PER M. FEET CAR LOTS.' listing prices for various wood types like Elm, Hickory, Maple, Oak, Basswood, etc.

OTTAWA, ONT.

OTTAWA, October 31, 1893.

Table listing Ottawa market prices for various lumber products like Pine, good sidings, Pine, good strips, etc.

QUEBEC, QUE.

QUEBEC, October 31, 1893.

WHITE PINE—IN THE RAFT.

Table listing Quebec market prices for white pine in the raft, including items like For inferior and ordinary according to average, quality etc., etc.

RED PINE—IN THE RAFT.

Table listing Quebec market prices for red pine in the raft, including items like Measured off, according to average and quality, etc.

OAK—MICHIGAN AND OHIO.

Table listing Quebec market prices for oak from Michigan and Ohio, including items like By the dram, according to average and quality, etc.

ELM.

Table listing Quebec market prices for elm, including items like By the dram, according to average and quality, etc.

ASH.

Table listing Quebec market prices for ash, including items like 14 inches and up, according to average and quality, etc.

BIRCH.

Table listing Quebec market prices for birch, including items like 16 inch average, according to average and quality, etc.

TAMARAC.

Table listing Quebec market prices for tamarac, including items like Square, according to size and quality, etc.

STAVES.

Table listing Quebec market prices for staves, including items like Merchantable Pipe, according to qual. and sp'c't'n—nominal, etc.

DEALS.

Table listing Quebec market prices for deals, including items like Bright, according to mill specification, etc.

BOSTON, MASS.

BOSTON, Mass., Oct. 31.—A hopeful tone prevails among lumbermen. Sales are made with comparative freedom. Spruce is in fair demand, the opinion prevailing that no risk can be taken at present low prices.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing Boston market prices for eastern pine cargo or car load, including items like Ordinary planed boards, Coarse No. 5, etc.

WESTERN PINE—BY CAR LOAD.

Table listing Boston market prices for western pine by car load, including items like Uppers, 1 in., 1 1/2 and 2 in., etc.

SPRUCE—BY CARGO.

Table listing Boston market prices for spruce by cargo, including items like Scantling and plank, random cargoes, etc.

LATH.

Table listing Boston market prices for lath, including items like Spruce by cargo, etc.

SHINGLES.

Table listing Boston market prices for shingles, including items like Eastern sawed cedar, extra, etc.

OSWEGO, N.Y.

OSWEGO, N.Y., Oct. 31.—Pine and hardwood are both in better demand than for some time past.

WHITE PINE.

Table listing Oswego market prices for white pine, including items like Three uppers, 1 1/4, 1 1/2 and 2 in., etc.

SIDING.

Table listing Oswego market prices for siding, including items like 1 in siding, cutting up, etc.

1X12 INCH.			
12 and 16 feet, mill run.....	21 00	24 00	
12 and 16 feet, No. 1 and 2, barn boards.....	19 00	20 00	
12 and 16 feet, dressing and better.....	27 00	31 00	
12 and 16 feet, No. 2 culls.....	15 00	16 00	
1X10 INCH.			
12 and 13 feet, mill run, mill culls out.....	21 00	23 00	
12 and 13 feet, dressing and better.....	26 00	28 00	
1X10, 14 to 16 barn boards.....	18 00	19 00	
12 and 13 feet, No. 1 culls.....	16 00	17 00	
12 and 13 feet, No. 2 culls.....	15 00	16 00	
14 to 16 feet, mill run mill culls out.....	21 00	23 00	
14 to 16 feet, dressing and better.....	26 00	28 00	
14 to 16 feet, No. 1 culls.....	17 00	18 00	
14 to 16 feet, No. 2 culls.....	15 00	16 00	
10 to 13 feet, No. 3 culls.....	11 00	12 00	

1 1/4 X10 INCHES.			
Mill run, mill culls out. \$22 00 @ 25 00	No. 1 culls.....	17 00	18 00
Dressing and better.. 27 00 35 00	No. 2 culls.....	15 00	16 00
1X4 INCHES.			
Mill run, mill culls out 17 00 21 00	No. 1 culls.....	14 00	15 00
Dressing and better.. 24 00 30 00	No. 2 culls.....	13 00	14 00

1X5 INCHES.			
6, 7 or 8, mill run, mill culls out.....	20 00	25 00	
6, 7 or 8, drsg and better.....	25 00	30 00	
6, 7 or 8, No. 1 culls..	16 00	17 00	
6, 7 or 8, No. 2 culls..	14 00	15 00	

SHINGLES.			
XXX, 18 in. pine.....	3 70	3 90	XXX, 18 in. cedar. 3 50 3 71
Clear butts, pine, 18 in..	2 70	2 90	Clear butt, 18 in. cedar. 2 50 2 71
XXX, 16 in. pine.....	3 10	3 30	XX, 18 in. cedar 1 90 2 00
Stock cedars, 5 or 6 in..	4 50	5 00	

LATH.			
No. 1, 1 1/4.....	2 30		No. 2, 1 1/4..... 2 25
No. 1, 1 in.....	1 80		

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Oct. 31.—The season is coming to a close here with dullness marking trade. Throughout the entire month business has dragged. A fair demand exists for pine, but generally shipments of any size are unknown. Prices do not change, and this is the most favorable feature of the month.

WHITE PINE.			
Ups, 1, 1 1/4, 1 1/2 and 2 in.....	\$48 00	50 00	Shelving, No. 1, 13 in and up, 1 in..... 32 00 @ 34 00
2 1/2 and 3 in.....	56 00	58 00	Dressing, 1 1/4 in..... 26 00 28 00
4 in.....	60 00	62 00	1 1/4 X10 and 12..... 24 00 25 00
Selects, 1 in.....	38 00	40 00	1 1/2 in..... 24 00 25 00
1 1/4 to 2 in.....	40 00	42 00	2 in..... 26 50 28 00
2 1/2 and 3 in.....	51 00	53 00	Mold st'ps, 1 to 2 in.. 33 00 35 00
4 in.....	52 00	54 00	Barn, No. 1, 10 and 12 in..... 23 00 24 00
Fine common, 1 in.....	35 00	38 00	6 and 8 in..... 22 00 23 00
1 1/4 and 1 1/2 in.....	37 00	38 00	No. 2, 10 and 12 in.. 19 00
2 in.....	39 00	40 00	6 and 8 in..... 18 00 19 00
3 in.....	47 00	48 00	No. 3, 10 and 12 in.. 14 00 15 00
4 in.....	47 00	48 00	6 and 8 in..... 14 50 15 50
Cut'g up, No. 1, 1 in.. 28 00 30 00			Common, 1 in..... 16 00 18 00
1 1/4 to 2 in..... 35 00 36 00			1 1/4 and 1 1/2 in..... 18 00 20 00
No. 2, 1 in..... 19 00 20 00			2 in..... 20 00 22 00
No. 2, 1 1/4 to 2 in.. 25 00 27 00			
No. 3, 1 1/4 to 2 in.. 18 00 19 00			

BOX.			
1X10 and 12 in. (No 3 out).....	14 00		Narrow..... 13 00 @ 14 00
1X6 and 8 in (No. 3 out).....	13 50		1 1/4 in..... 15 00 18 00
1X13 and wider.....	18 00		1 1/2 in..... 15 00 18 00
			2 in..... 15 00 18 00

SHINGLES.			
18 in. XXX, clear....	3 75	4 00	16 in., *A extra..... 2 50 2 60
18 in. XX, 6 in. clear.	2 75		16 in. clear butts..... 2 10

LATH.			
No. 1, 4 ft.....	2 60	2 70	No. 1, 3 ft..... 1 10
No. 2, 4 ft.....	1 95		

ALBANY, N.Y.

ALBANY, N.Y., Oct. 31.—Trade has not nearly equalled expectations for this season of the year. Shipments in place of being lively, as they usually are towards close of navigation, are slow. Reports from salesmen on the road do not possess much encouragement.

PINE.			
2 1/2 in. and up, good.....	\$56	\$60	10-in. common..... \$15 \$16
Fourths.....	58		12-in. dressing and better... 28 34
Selects.....	59		Common..... 15 17
Pickings.....	45		1 1/4-in. siding, selected, 13 ft. 40 45
1 1/4 to 2-in. good.....	52	55	Common..... 15 17
Fourths.....	47	50	1-in. siding, selected..... 38 42
Selects.....	42	45	Common..... 15 17
Pickings.....	37	40	Norway, clear..... 22 25
1-in. good.....	52	55	Dressing..... 16 18
Fourths.....	47	50	Common..... 11 15
Selects.....	42	45	10-in. plank, 13 ft., dressing c. c. and better, each..... 42 55
Pickings.....	37	40	10-in. plank, 13-ft. culls, each 23 25
Cutting-up.....	22	27	10-in. boards, 13 ft., dressing and better, each..... 28 32
Bracket plank.....	30	35	10-in. boards, 13-ft. culls. . . 17 21
Shelving boards, 12-in. up.....	30	32	
Dressing boards, narrow.....	20	22	

LATH.			
Pine.....	\$2 40		Spruce..... \$2 40 \$2 50

SHINGLES.			
Sawed Pine, ex. XXXX. \$4 35 \$4 50	Bound butts, 6 x 18.....	\$5 90	\$6 00
Clear butts..... 3 15 3 25	Hemlock.....	2 15	2 30
Smooth, 6 x 12..... 5 50 5 60	Spruce.....	2 20	2 30

SAGINAW, MICH.

SAGINAW, Mich., Oct. 31.—The hoped-for, and with some, predicted revival of trade, so soon as the silver question was settled, has not reached this centre. The season will mark one of the dullest for years. Lumber does not move, and the plans for the winter's work are on an extremely limited scale.

FINISHING LUMBER—ROUGH.			
Uppers, 1, 1 1/4 and 1 1/2.....	45 00		Fine common, 1 in..... 35 00
2 in.....	46 00		1 1/4 and 1 1/2 in..... 36 00
Selects, 1 in.....	40 00		2 in..... 36 00
1 1/4 and 1 1/2.....	41 00		C, 7, 8 and 9 in..... 39 00
2 in.....	41 00		
SIDING.			
Clear, 1/2 in.....	24 00		C, 1/2 in..... 19 00
3/8 in.....	48 00		3/8 in..... 34 00
Select, 1/2 in.....	21 00		No. 1, 1/2 in..... 13 00
3/8 in.....	40 00		3/8 in..... 23 00
TIMBER, JOIST AND SCANTLING.			
2X4 to 10X10, 12, 14 and 16 ft. \$11 00			20 ft..... 13 00
18 ft.....	13 00		22 and 24 ft..... 15 00
* For each additional 2 ft. add \$1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.			

SHINGLES.			
XXX 18 in. Climax.....	3 65		18 in. X (cull)..... 1 00
XXX Saginaw.....	3 40		XXX shorts..... 2 25
XX Climax.....	2 25		XX..... 1 50
18 in. 4 in. c. b.....	1 25		

LATH.			
Lath, No 1, white pine.....	2 25		Lath, No. 2, W. pine, Norway 1 65

NEW YORK CITY.

NEW YORK, Oct. 31.—Trade is of an uncertain and indifferent character. There are spurts now and again, but no large volume of business is doing. The New York Lumber Trade Journal says: "Dealers are renewing customer's paper right and left, and conditions are not at all favorable at the present time for a good winter's trade. Nothing is in demand except for immediate wants, and it would be ridiculous to say to the contrary."

WHITE PINE—WESTERN GRADES.

Uppers, 1 in.....	\$44 00 @ 45 00	Coffin boards.....	20 00 22 00
1 1/4, 1 1/2 and 2 in.....	46 00 47 00	Box, in.....	\$17 00 @ 17 50
3 and 4 in.....	55 00 58 00	Thicker.....	17 50 18 50
Selects, 1 in.....	40 00 41 00	Ceil'g, base, fig. No. 1	40 00 42 00
1 in. all wide.....	41 00 43 00	No. 2.....	35 00 37 00
1 1/4, 1 1/2 and 2 in.....	43 00 44 00	No. 3.....	24 00 26 00
3 and 4 in.....	52 00 54 00	Shelving, No. 1.....	25 00 32 00
Fine common, 1 in.....	36 00 37 00	No. 2.....	25 00 27 00
1 1/4, 1 1/2 and 2 in.....	38 00 40 00	Molding, No. 1.....	36 00 37 00
3 and 4 in.....	46 00 48 00	No. 2.....	34 00 36 00
Cutting up, 1 in. No. 1	28 00 30 00	Bevel sid'g, clear.....	22 50 23 50
No. 2.....	21 00 23 00	No. 1.....	22 00 22 50
Thick, No. 1.....	29 00 32 00	No. 2.....	20 00 20 50
No. 2.....	24 00 26 00	No. 3.....	16 00 17 00
Common, No. 1, 10	22 00 23 00	Norway, c'l, and No. 1	23 00 25 00
and 12 in.....	22 00 23 00	No. 2.....	20 00 22 00
No. 2.....	20 00 21 00	Common.....	18 00 19 00
No. 3.....	17 00 18 00		

DON'T.

ONE of the most common, and at the same time greatest abuses of the boiler, is the reckless practice of blowing out the boiler as soon as the fires are hauled, and the boiler still hot. Under such circumstances the contraction of the fire-sheet, tube-sheet and tubes is so unequal and rapid that in the end it results in the ruin of the boiler.

LEADS THE WORLD.

THE Magnolia Metal Company, having offices at New York, Chicago, London and all over the world, has been allotted the highest award possible at the World's Fair, Chicago, on their Magnolia Metal. A medal has been granted and a diploma with following specifications allowed and set forth:

- 1—It prevents hot boxes.
- 2—It will not cut or heat journals.
- 3—Its lasting qualities are of the highest order.
- 4—It is a self-lubricating metal, saving large percentage of oil.
- 5—It increases the motive power.
- 6—It is the only metal that protects and does not wear journals. It enamels them.
- 7—It is adapted to high and low speed machinery.
- 8—It will stand the heavy work of sugar, rolling, saw and wire mills.
- 9—It is a success for main journal and crank-pin bearings; also, gibs of steamships and steam tugs.
- 10—It is the best water metal.

WELL ORGANIZED.

LONDON has long been the monetary centre of Western Ontario. Its loan companies control more capital than those of any other city in Canada except Toronto, while all the chartered banks in London reap good results. The latest enterprise established here, with its head office at the Masonic Temple, is the Steam Boiler Inspection and Plate Glass Insurance Company. Already it is acquiring a snug and thriving business. Its board of directors are well-known business men, E. Jones Parke, Q.C., being president; F. A. Fitzgerald, president of the Imperial Oil Company, is vice-president, and Hon. David Mills, Q.C., M.P., ex-Minister of the Interior, Mr. John Morrison, ex-governor of the British America Insurance Company of Toronto, and Mr. T. H. Purdom, barrister, of London, are the directors. The services of Mr. J. H. Killey, of Hamilton, have been secured as consulting engineer, and it will be welcome news to the citizens generally to know that Mr. John Fairgrieve returns to London as its inspector. The management is in the energetic hands of Mr. James Laut, and the Advertiser predicts a successful career, under his oversight, for London's latest enterprise.—London Advertiser.

STEAM PUMPS



Duplex AND SINGLE Steam AND POWER Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US

NORTH EY M'FG CO. LIMITED TORONTO - ONT.

LUMBERING IN ENGLAND.

THE English lumber trade, as seen by one who has been accustomed to lumbering in its various branches in the new world, is a peculiar institution. Some little time since a representative of the North-western Lumberman visited Great Britain, and while there made a study of lumber in that country. An attempt to learn it, he tells us, is about as novel as learning a new language. Although England is not in any comprehensive sense a lumber producing country, yet the stumps and bean poles which are periodically collected and advertised as timber sales, supply to some extent the domestic demand, and act as a check on the prices of foreign lumber.

In the northern part of England, and still more in Scotland, scientific tree raising has developed to such an extent that crops of trees are raised and sold like wheat or cabbages. These trees, however, are generally pine, spruce or larch, or else coppices of hardwoods, that is, small growths, the stumps of trees being cut back so as to produce an abundant crop of small poles from two to five or six inches in diameter. No boards can be sawed from such stuff, but it is useful for poles, mine-props, railway ties, fence posts and the like, and for firewood. A limited quantity of timber is also obtained from old trees on the various large estates which are cut down from time to time, and advertisements are often seen in the lumber journals like the following:

250 oak trees, with lop, top and bark, contents seventeen feet average, 300 coppice grown ash trees, three birch, two maple, five pear logs, also alder and birch props, and a quantity of poles and tops.

Of course such trees have a very short trunk or "leg" as it is called, generally under ten feet in length, but everything is most religiously saved. These country auction sales are very pleasant affairs, but the buyers never allow feelings to influence their bids. One o'clock in the afternoon is a popular time for a sale, and it is frequently preceded by a substantial lunch, with liquid trimmings furnished at the expense of the seller, and this genial custom obtains even at some of the great Liverpool sales. These goods to be sold will perhaps consist of half a dozen small piles of oak, ash and elm logs, from five to fifteen feet in length, some piles of long, slender ash and alder poles, coppice grown, and a few heaps of brushwood for supporting peas and beans.

The buyer is expected to know what he purchases; every log is examined with almost microscopic minuteness before the sale, and a crowd of solemn, well-fed Englishmen poking around among a quantity of stumps and brush heaps, punching their canes and pocket-knives into every knot-hole or decayed spot, or passing funeral criticisms as to how far a crack extends into a log is a sight worthy of commemoration by a camera. The sales are generally made where the articles to be sold are lying; the bidders gather around as if to review the remains of the dear departed, the auctioneer calls out the bids in about the same tone of voice as a minister would use at a funeral, and after the lot has been bid off, the purchaser tears off the sale number for identification, and the crowd moves to the next grave. Larger sales are generally made by offers in writing, after advertisement, the highest bid being accepted. Buyers of course, remove their purchases at their own expense and take them either to the mills, or as is not uncommon, have the mills, small, portable affairs, come to them.

The timber yards, as they are called in the large cities, are very compact, and even in the great metropolis of London are to be found in the busiest part of the city. Generally they do not occupy more than 3,000 to 5,000 square feet of ground room, and the bulk of the lumber is stacked up vertically. This is covered over, and on an upper floor will be found assorted sizes of dressed lumber of various kinds. In the case of valuable kinds of wood, such as oak, mahogany, teak, walnut and the like, it is the practice to cut the logs without squaring, so as to keep all the boards of a log together, and then they are stacked vertically, so that a purchaser can easily examine each board. Such sawed logs are sold as a whole, though a purchaser can buy the center boards which will be rift-sawed, but will be compelled to pay a much higher price in proportion. Large stocks and extended yards, such as can frequently

be seen in the larger cities in the United States, are very rare in England, except on or near the dock in the few cities of Liverpool, Bristol, London, Grimsby, Hull, etc.

But to get a notion of the English timber trade, and to get at the secrets of its peculiarities, one must spend a day at the Surrey Commercial docks. One searches in vain along the vast river front of the Thames to find lumber vessels unloading at the wharves, and to see the adjacent piles of lumber, but once let him find the narrow entrances to the Surrey docks and the mystery is solved. These famous docks, the chief depot for the lumber and grain trade, not only of London, but of England, are situated in a curve of the river Thames, about four miles in a straight line southeast from the Bank of England and the centre of the city. They consist of a series of 16 ponds, connected with one another, and also connected with the Thames by four inlets. Ten of these bodies of water are called docks from the wharves that line them, the remaining ponds being used for storing floated timber. These docks and ponds cover 159 acres, and around them are 220 acres of piling ground for the lumber in store. The length of quayage or water frontage available for the discharge of cargoes is five miles.

There are charges for everything, from the time of entering the docks—for litherage, for dockage, for repiling, assorting, carting, calculating—though the charges of the dock company proper do not begin until after the piling is done. One case has become classic. A cargo of yellow deals, from Gefle, Sweden, comprising 350 stds. (700,000 ft.) of deals, 575,000 pcs. of prepared boards and a small quantity of moulding, was delivered at the Surrey docks. This sorting took six weeks, and the space occupied was 25,000 square feet during that time, and 12,000 feet after the cargo was finally piled. To ascertain the quantity so as to determine the charges and make out an invoice necessitated over 5,000 acts of calculation.

Since the establishment in foreign countries, particularly Norway, Sweden and Russia, of huge saw and planing mills, the tendency has been to send all lumber cut to size, and, where possible also dressed, and the size and qualities now used comprise many utterly unknown to the trade a few years ago. Competition has made it necessary for manufacturers to cut as near as possible to the requirements of the buyer, and in the future this will be done more than ever. The log trade is almost wholly confined to shipment of expensive foreign woods, such as mahogany, rosewood, amboyna, tulip-wood, and sometimes poplar, walnut, teak, etc., where extra size or extra fine boards are wanted. The tendency to complications from the multitude of different sizes and qualities explains the difficulty, not only of comprehending the English trade, but of catering to it successfully.

Of course, with the centralization of trade, many of the importers do not pretend to keep yards. If they buy to arrive, the cargoes, when received, are piled, and the invoices turned over to them. The "timber travellers," as the drummers are called, are then put on the road, and sales made without the owner having any further trouble or even seeing his own stock. If the vessels arrive without sales having been made, the cargoes are unloaded and piled on the docks, and then sales made either privately or at auction.

Retail sales are also made direct from the docks, and these small sales have grown to astonishing figures. The deliveries of wagon loads of less than 2,000 feet in 1882, numbered 78,100, while in 1891 it had grown to 101,810. Figures are dull reading, but to give a slight idea of the business of the Surrey docks, it may be stated that the number of orders for transfer and delivery in 1875 run 70,888, and in 1891 149,970, nearly doubling in seventeen years. The "wood goods," comprising all kinds of timber and lumber received in 1891, was about three hundred and eighty million feet board measure, and the deliveries from the docks, which approximately represent the sales for the same time, were 418,000,000. The amount of lumber exclusive of firewood consumed in London in 1891 was 33,198,000 pieces of sawed wood, including deals or plank of all lengths, two inches thick and seven inches or over wide, "battens," or similar pieces under seven inches wide, boards and "ends" or short pieces, from two to six feet

long, and 218,700 "loads" of 50 cubic feet of timber square and round.

"Where does all this lumber go to?" is naturally one of the first questions which one will ask on reading the above figures and the question is not very easy to answer. The wood industries of Great Britain are very numerous, there being some thousands of firms in London alone engaged in various lines of business in which wood is employed. The importers in the city number 86, the timber dealers or wholesalers, 55, and the timber merchants or retailers, 470. Then there are 139 packing case manufacturers, 221 firms engaged in running saw and planing mills, 95 mahogany merchants, 43 firewood importers, and nearly a hundred agents and brokers of various kinds.

ELECTRICAL POWER.

IN the present day it is not enough that the proprietor, or his expert in charge of the mechanical operations of mill or factory, should be possessed of an intelligent knowledge only of the uses of steam and its various properties. It is important that he should fully understand these things. But with the developments in electricity and the extent to which this newer power is being applied to manufacturing purposes, it becomes almost as necessary, that the mechanical manager of to-day should know as much of the uses of electrical power as of steam power. How to handle the electrical motor; what to do when an awkward balk asserts itself, is a part of his education that he cannot afford to neglect. On this line the matter of reversing a motor is made the subject of intelligent discussion by a writer in the Tradesman. He says: "To reverse the direction of any electric motor it is only necessary to change the direction in which current passes through it. But simply taking down the wires and attaching the + wire where the - wire formerly was, will not answer. That will cause the motor to run in the same direction as before. The way to do it is to take down the connections between the brushes and field magnets and change the direction of the current there, through one, either through the armature, or through the field magnet coils. This will change the direction in which the armature will revolve.

"Current always flows from the + or positive line wire into the - or negative one. Here is a handy rule for telling which way the current is passing in any dynamo: First, find the direction in which the lines of force are passing between the field magnets; this can be done with a pocket compass. Hold the instrument over the dynamo, half way between, and six inches above the armature; the compass needle will immediately arrange itself in line with, and pointing directly from one field towards the other. The north end of the compass needle will always point towards the south pole of the motion field magnet, and as the lines of force always travel from the north to the south field of any motor or dynamo, it is known that the lines of force are always passing in the direction pointed out by the north end of the compass needle.

"We can now lay the hand on the dynamo, the thumb pointing in the direction taken by the lines of force. The first finger pointing parallel with the armature winding, while the other fingers are bent slightly, and point around the armature in the direction of its travel. The flow of current in the armature winding will always be in the direction toward which the first or index finger points. Only, bear in mind that the armature coil is always supposed to be between the eye and hand while making the test. Thus, if the dynamo run in a certain direction called "right-handed," the right hand can be used to bring in all the conditions mentioned above. But if the dynamo runs in an opposite direction, the left hand must be used.

"This matter is very useful in determining which way a motor will revolve after it is started up. It is only necessary to find which way the current will pass in the armature, then lay on the hand as before, with index finger pointing in the direction current flows. The thumb points in the direction taken by the lines of force, and the other fingers will, when slightly bent, point in the direction in which the motor armature will revolve. Always bear in mind, that with a dynamo and motor connected in the same circuit, the armatures will revolve in opposite directions."

CANADA'S PART IN THE WORLD'S FORESTRY.

OF the Canadian exhibit of lumber at the World's Fair, Mr. F. Howard Annes writes:

"The coolest corner I have been able to find in the White City is the forestry building. Close to the ceaseless lapping of the waves on the shore of Lake Michigan, in the extreme southeastern part of the park, there is always a grateful breeze playing through its piney portals. Beautifully situated, it is one of the most unique and interesting buildings of the World's Fair, both for its style of architecture and the highly attractive exhibit it contains. Rustic in design and detail, the forestry building is probably the most expensive of that particular kind ever erected in America. It cost \$100,000. The sides are made of slabs with the bark removed. There is a wide verandah encircling the whole building, the columns of which, supporting the roof, are all of varied tree trunks. They are bunched in groups of three, one of which will be from 16 to 20 inches in diameter, and the other two companions smaller. They are all 25 feet in height and neatly labelled. The dimensions of the building are 528 by 208 feet. Inside are all sorts of wood both in rough and manufactured state from every clime—plain, mountain, sea shore, river bottom, swamp and jungle have all contributed to the display. The central exhibit in the building is a grand pyramid built of specimens of wood from all over the world.

"Verily it is a universal congress of woods. California's contribution, a cutting 14 feet in diameter of redwood, 475 years old when Columbus landed under the scant shade of the palm trees of San Salvador, forms the base of the pyramid. Around and upon it are grouped ching-chang from Siam, bamboo from Japan, teakwood from India, birchwood from Ontario, and specimens from all other countries. And there is a real sure enough axe in a glass case that figures as a sort of frontispiece to this wonderful wood-grouping in the central exhibit. It is Gladstone's axe, the very axe the Grand Old Man used in cutting out the undergrowth at Harwarden when in training to knock out Salisbury in the political arena. Some of the specimens in the exhibits attract special attention. There is a mammoth redwood plank, 16 feet 5 inches wide, 12 feet 9 inches long, 5 inches thick, cut from a California tree 35 feet in diameter and supposed to be 1,500 years old. A beautiful carved door made of teak wood from British India, is much admired, and a very large birch knot from Peterboro county, Ontario, attracts no end of attention. There are collections of wood from twenty-five of the different states representing numberless varieties of forest growths.

"Sixteen foreign nations and 31 individual exhibitors, domestic and foreign, and among them the province of Ontario, make a very creditable showing and withal a very practical one. The Ontario section is on the main aisle, south of the Dominion court, and occupies a floor space of 1,000 square feet. It is fronted by a Corinthian archway, over which is the sign "Ontario" in gold letters. The whole is surmounted by Canadian flags and emblems. The Ontario exhibit tends to show the splendid forest resources of the province in

a manner that arouses the greatest interest, especially amongst the practical lumbermen, builders and cabinet workers. There are 66 exhibits in the log and squared blocks, comprising all the valuable woods such as red pine, spruce, oak, ash, beech, maple, birch, etc. all neatly arranged and relieved at intervals with sample boards, beautifully polished. An attractive feature is a case of polished wood specimens sent by the Hon. A. S. Hardy, commissioner of crown lands, some thirty different kinds of wood being represented. A pyramid of blocks ornamented with carved Indian hunting scenes from D. S. Hill of the Six Nations Indians also attracts much attention. There are particularly fine specimens of black cherry and white pine. Mr. George Harte, of Saltfleet, Ont., is the very efficient and courteous superintendent of this section. Mr. Matthew Goetz, who is here to meet and interest German visitors to the exposition is a valuable acquisition to the staff of the Ontario commission. The other 2,000 feet of space allotted to Canada is divided between Quebec, British Columbia and the Northwest Territories.

"The Dominion has a large collection of photographs of living trees, contributed by the Geological Survey Museum, Ottawa. The photographs are shown in frames made of the wood represented in the picture. Chief Buchanan is said to have expressed the opinion that the exhibit of commercial timber made by Ontario is the best in the building. However that may be, as regards the fir woods, the birch, beech, cherry and other fine hardwoods capable of brilliant polish, cause great admiration. No less than 660 inquiries by letter have already been received as the "first fruits" of this wonderful display of Canadian woods. The value to the Dominion of this advertisement of its forest wealth will presently be appreciated at its true worth."

AN AIR THERMOMETER.

THE air thermometer is the name given to a recent English device for giving warning of a fire. In this apparatus the expansion of air by heat in an air box fitted to the ceiling of the room is made to inflate a thin, hollow India rubber diaphragm. This rises a small terminal rod, bringing it into contact with another terminal, an electric circuit being thus completed, the current ringing an alarm bell and releasing a semaphore, which serves to indicate the location of the outbreak. As thus arranged the apparatus consists of three essential parts, the air box, the pulsator, and the indicator. Heat currents ascending to the ceiling cause the enclosed air in the air box to expand—the force of this expansion being directed to the under side of the India rubber diaphragm of the pulsator an electrical current is in this way made and the alarm given. The air box and pulsator may be in the same room, or in proximity to each other, but the indicators may be placed in any part of the building or at a remote distance. The sensitiveness of such an apparatus to thermal changes, and the ease with which it can be adjusted over a wide range of temperature, have, it is asserted, been fully determined by numerous experiments.

THE SENSATIONS PRODUCED BY A HEAVY ELECTRICAL CURRENT.

EDISON'S Orange laboratory, despite its pastoral surroundings and the pacific nature of its habits, has been the scene of some gruesome experiments. When the new law was passed, enlisting electricity as an agent of death, Mr. Edison was consulted as to the best method of applying that mysterious and deadly fluid, and in the experiments made by him to test the comparative action of different currents at various intensities, many painful animal excruciations were necessary. Mr. Edison's most valuable friend and assistant, Charles Bachelor barely evaded the distinction of officiating as a sacrifice on the altar of experimental science. He was mending some defective apparatus in connection with a lamp, and, as it seemed to him at the time, had taken all imaginary precautions against an accident. He supposes, however, from the presence of a burn afterward found on one of his fingers, that he must unconsciously have established a circuit by holding a wire in each hand. No sooner had he made contact than he staggered back to a stool, with the awful memory of soul and body wrenched violently asunder, with such pangs as the Mohamedan death angels wreak on the awakening spirits of the damned. He describes it as resembling the sensations of an immense rough file thrust through the quivering fibres of the body, a shuddering, rasping pang, grinding its way through lungs and heart. For over fifteen minutes he sat motionless, bathed in an icy and death-like sweat, and nervously unstrung from head to foot. Yet, strange to say, the shock passed away in a day or two, leaving no visible injury except in the memory of the victim.—From "The Life and Inventions of Edison" in Cassier's Magazine for November.

CONDUCTIVITY OF WOOD.

IN some experiments performed by Delarive and De Candolle on prisms of different kinds of wood to ascertain their power of conducting heat, they found that the direction of the fibres materially interfered with their conducting power. Thus it appeared that the obstruction to the passage of caloric was greater when the current was at right angles to the woody fibre than when it flowed longitudinally in the direction of the fibres. This difference also appeared to increase in proportion as the wood was a bad conductor of heat. The conducting powers in the two directions may be represented very nearly by the following numbers: If longitudinally nutwood, oak and fir are each taken as 5, across the fibres they are respectively 3.46, 2.83, and 2.05. Hutchinson found in his researches on the conducting power for heat of building materials, that taking the conducting power of firewood as 100, beechwood was 83.19, and oakwood 134.10. But if the woods were compared with slate as 100, their conducting power would be as follows: Firwood 27.72, oakwood, 37.17, beechwood, 23.06. The cooling power of these woods is another important point, and this is not at all in relation to their conducting power. Thus firwood being 100, the cooling power of oakwood is only 30.38, whilst that of beechwood is 120.2. Compared with slate as

100, the cooling power of the woods are as follows: Oakwood, 55.60, firwood 69.16, beechwood 83.19. Another important point of inquiry with regard to the physical properties of wood, as to its value in building, etc., is its relation to moisture. If the specific gravity of woody fibre is 1.50, we should expect that the less the specific gravity of the wood the greater would be its capacity for moisture, and Hutchinson found, on immersing 500 grains of each of the following woods for nineteen hours in water, that such was the result, for they had gained as follows: Firwood 622.75 grains, oakwood 224.75 grains, beechwood 185.5 grains, Moulmein teak 82.50 grains.

A NEW LATHE ATTACHMENT.

A MOST ingenious lathe attachment has been contrived, adapted to any lathe within a certain limit of size, and with which the lathe can be turned into a pipe threading machine in a few minutes and pipe of any length threaded very rapidly and very correctly. The mechanism consists of a die-carrying head, attached to a spindle like a chuck, an adjustable self-centring vise attached to the carriage, and an adjustable pipe rest affixed to the bed of the lathe to support long lengths of pipe. The latter is held securely by the vise on the carriage and fed to the revolving dies by moving the carriage with the hand, or this can be done automatically by using the lead screw of the lathe set to the number of threads corresponding to the standard of thread to be cut. When the thread is cut to the length required the dies may be opened by turning the face plate, and the pipe be taken out without running back. All the dies are made adjustable to any variation of the fittings, and adjust from one size of pipe to another, so that each set of dies will thread several sizes of pipe without changing. To fit this attachment to any make or size of lathe no machine work is necessary except on the flange.

HIS AUTHORITY FOR IT.

A REVEREND gentleman who has charge of the advertising of a prominent religious weekly was recently asked what scriptural authority he could find for his occupation. "Oh," he replied, "that is easy enough. Advertising not only has scriptural authority, but it is of very respectable antiquity as well. If you will look in Numbers xxiv., 14, you will find Balaam saying 'Come now, and I will advertise,' and Boaz says, in Ruth iv., 4, 'And I thought to advertise.' Advertising is no modern thing."

AN exchange says that the art of paper making has reached the point where it is possible to cut down a growing tree and convert it into paper suitable for printing purposes within the short space of twenty-four hours.

GEORGE W. CHILDS, the veteran newspaper man and editor of the Philadelphia Ledger, was so pleased with the working model of the Michigan logging camp at the World's Fair, that he has purchased it and will remove it to his country home near Philadelphia.

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WHOLESALE DEALERS IN LUMBER

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Board of Trade Building
Toronto, Ont.

Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mills, Pine, Hem., Bl. Birch	Steam, Circular, 16m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	Stm., Band, Cir., S. 75m, Sh. 60m
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	
Waubaushe, Ont.	Waubaushe	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Pine only.	Waubaushe mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles.	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glamis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mig. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwds., Whol.	Steam, Band and Circular, 100m
Norman, Ont.	Norman	Cameron & Kennedy	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 40m
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	
Louise, Ont.	Elmford, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles.	Steam, Circular, 20m.
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale, etc., Wholesale.	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale.	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Huntsville, Ont.	Toronto	DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail.	
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdwds., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

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The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

RAILROAD WHEELS

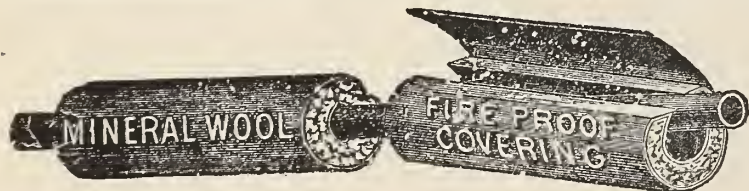
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NEW YORK LIFE INSURANCE BUILDING, MONTREAL

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We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

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If you want to save fuel
 " " " dry steam at long distance
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THE best non-conductor is the cheapest covering. Mineral Wool heads the list as a fire-proof non-conductor. Hard pressed coverings are poor non-conductors, and are therefore the most expensive in the end.

A good pipe covering is one of your best investments. It is false economy to have uncovered pipes, as you are just paying the coal man what the covering man should have, and only ashes to shew for it. Give the matter your consideration, it means money to you.

We also carry full lines of Asbestos Goods, and Mineral Wool for fire-proofing, deadening of sound, insulation, etc., etc. Send for Pamphlet.

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3 1/2 Cents a day—

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 About twenty-five cents a week or so.
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 Times are hard, they say; but if they are hard now to your family and yourself, what will they be to your family without you?
 That's worth thinking about.
 We think that no man should be without life insurance when it can be had at such a low rate as 3 1/2 cents a day from the Manufacturers' Life, Yonge Street, corner Colborne, Toronto.
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hardwood flooring, cedar shingles, piles, sawdust,
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BASSWOOD LUMBER, BY CAR OR CARGO.
Offers invited. Address "Baswood," care of
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LUMBER AND SHINGLE MILL FOR
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About three miles of 25 lb. T-Rail; 12 Logging
Cars complete, and a Shay Locomotive

IN GOOD CONDITION, FOR SALE ON AD-
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71-8-wheel 3-foot gauge Logging Cars, in good
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Photographs, prices and full description mailed on
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Containing 3 1/2 Acres of Land

Mill capacity from 10,000 to 15,000 feet per day

THE PROPERTY IS SITUATED IN ONE
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Two small houses, stable, etc., on the property.

Mill can be seen at any time.

Terms easy.

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MOSTLY ONE-INCH, SOME ONE-AND-A-
quarter and one-and-a-half inch, strictly firsts
and seconds; also commons. Furthermore, Ash and
Oak squares from one-and-a-half to four inches thick.
Red Birch Lumber, I. and II., all thickness; also Red
Birch Squares 5 x 5 and 6 x 6, ten feet and over long.
Address all particulars as to dryness, quality, quan-
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1874... " 26.57	1884... " 11.69
1875... " 24.71	1885... " 11.35
1876... " 20.65	1886... " 11.35
1877... " 19.16	1887... " 12.19
1878... " 17.32	1888... " 12.88
1879... " 13.02	1889... " 12.41
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The book contains more valuable information and
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than any similar book of its kind ever published, be-
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value of articles or lbs. from one to 500; from a quarter
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Is the Short Line to
SAGINAW AND BAY CITY
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**MT. PLEASANT, CLARE, REED CITY
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AND
MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company
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The line thus formed is a short and direct route from

NEW YORK BUFFALO MONTREAL TORONTO
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cheese factories.

ONE 12 x 16 SLIDE-VALVE ENGINE, BECK-
ett's make.

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nearly new.

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gine and boiler on skids; Ames & Co., makers,
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Is invaluable to any who
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lumber, cast up measure-
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any exception.

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and the table for casting up price per cord for
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We have thoroughly tested the "Andrews" Lumber Dry Kiln furnished by you and must say that it more than surpasses our expectations. We put green spruce lumber in from the saw dripping with water and in 18 hours it was drier than lumber that had been stuck up in the yard all summer, and in four days it was as dry as a bone, and without nearly as many checks or warps as the same grade air dried.

A very important feature of the "Andrews" Kiln is that it saves so much steam over that of any other system.

You may refer any one you like to us, or send them down to inspect, and we can satisfy them that your kiln cannot be beat.

Yours truly,
EASTMAN LUMBER CO.

WHAT?

WHY

CHATHAM, ONT.,
August 25th, 1893.

A. G. MORTIMER, ESQ.,
Manager Dominion Dry Kiln Co.,
Toronto, Ont.

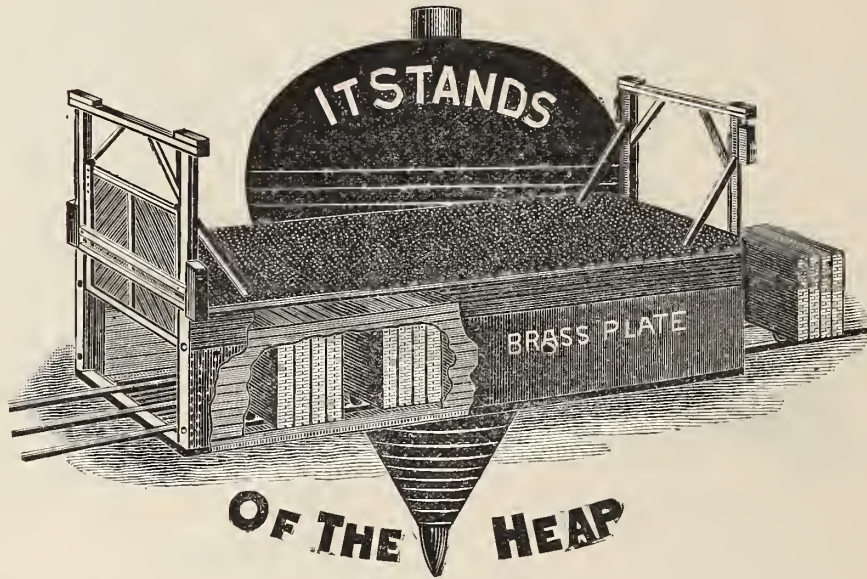
DEAR SIR,

The "Andrews" dry kiln, which I purchased from you has now been in operation over a month, and is so perfectly satisfactory that I cannot say enough in its favor.

I use very little steam and my staves come out as dry as a bone, and are not in any way injured by warping or discoloration.

Yours truly,
(Signed) N. H. STEVENS

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MEDAL



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- already -
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Dauntless Shingle and Heading Machine

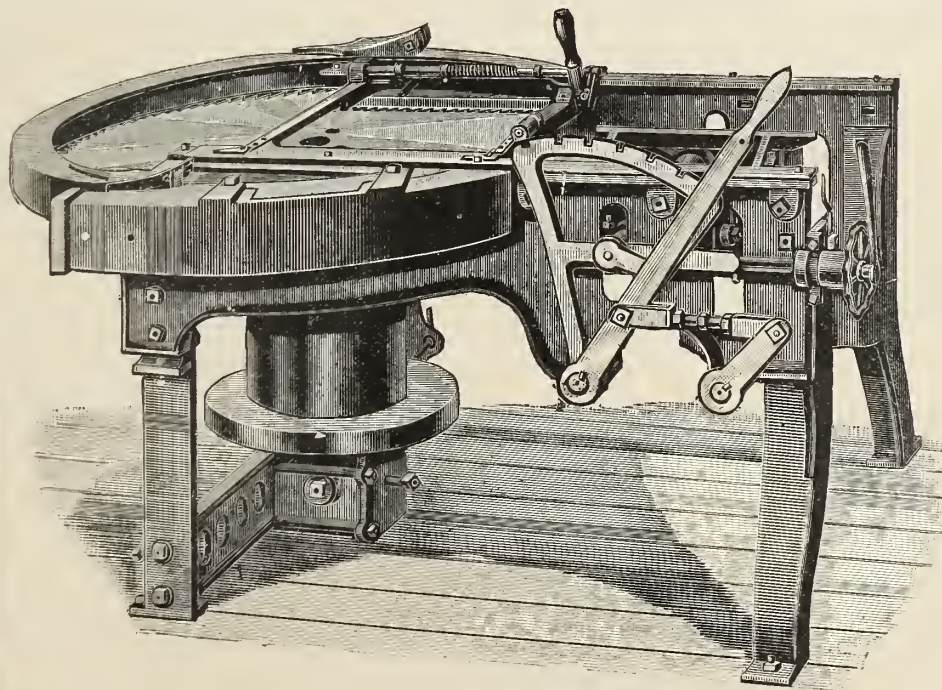
... WILL make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

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— CAPACITY FROM 25,000 TO 50,000 PER DAY —

[COPY.]

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All our other machinery purchased from you is as good as the shingle machine. Your drag saw, with friction drive, cannot be beaten. We run ours 180 strokes per minute; with 6½ ft. saw it would easily make blocks for two shingle machines. The splitter, with balance wheel 4 feet diameter, weighing 1,000 lbs., is perfect and runs without the least jar. The iron frame shingle jointer with 40-inch saw is the only good jointer we ever saw. In fact, all your machinery, line shaft, pulleys, etc., give us the best satisfaction.

We expect to require another mill in a few days, and, if we do, will send you the order for complete outfit.

Truly yours,
 M. DOVEY.

P.S.—If any one wants to see a good working shingle mill send them to me.—M. D.

(F. J. DRAKE)

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A book filled with valuable information on the care of band saws. Giving the reasons for breaking; analyzing each reason; giving instructions to dispense with the causes as laid down in each reason; and full details on filing and brazing. The proper styles of hammers to use are illustrated and described, and views of blades showing the blows of the different styles of hammers form an important part of the illustrations. Improper and unequal tension are then treated, and the manner of properly setting irregular teeth is described. In connection with the treatise is a history of the invention, manufacture and use of the saw from its origin to the present time. The work in whole makes an accumulation of information such as has never before been published.

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Send for sample of our new SAWMILL BELT

CANADIAN LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF

THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA:

1893

Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

.....

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

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 CANADA LUMBERMAN,
 TORONTO, ONT.

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WATEROUS BRANTFORD, CANADA.

Gauge No. 1.....21-64 inch scant.	Gauge No. 9..... 5-32 inch scant.
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" " 3..... 9-32 " scant.	" " 11..... 7-64 " full.
" " 4..... 1/4 " "	" " 12..... 7-64 " scant.
" " 5..... 7-32 "	" " 13..... 3-32 "
" " 6.....13-64 "	" " 14..... 5-64 " full.
" " 7..... 3-16 " scant.	" " 15..... 5-64 " scant.
" " 8..... 5-32 " full.	" " 16..... 1-16 " full.

T. L. Co

Compare your circular and gang saws with the above gauge, and estimate the amount you would save each season. By cutting your stock with 14-15 or 16 gauge Band Saw—either gauge thoroughly practical. The Band will cut 1-8th—say 7-64. Your circular, if 6 gauge, will probably cut 21-64. The saving is enormous. You cannot afford to continue the waste.

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Improved Band Mills, Saws improved in steel, temper and manufacture, improved tools reducing the amount of skilled labor required to keep saws in order, all combine to make the running of a Band an easy matter to what it was a few years ago.

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 Stave Cutters
 Stave Bolt Equalizers
 Barrel, Hoop and Heading Machinery

Hub Machines
 Axe-Handle and Spoke Lathes
 Gauge Lathes
 Clothes Pin and Match Machinery
 Veneer Cutting Machines
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 Gate Scroll and Jig Saws
 Bracket Band Saws
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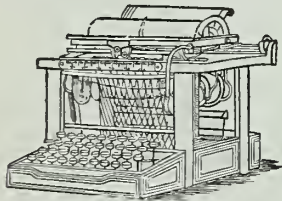
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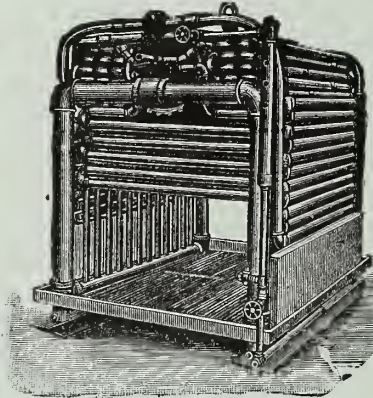
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Gedar and Pine Shingles

Manufacturers having such for sale are invited to communicate with

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THE CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XIV. NUMBER II. TORONTO, ONT., DECEMBER, 1893 TERMS, \$1.00 PER YEAR (SINGLE COPIES, 10 CENTS)



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E. R. BURNS
Grosscut Saw Handle

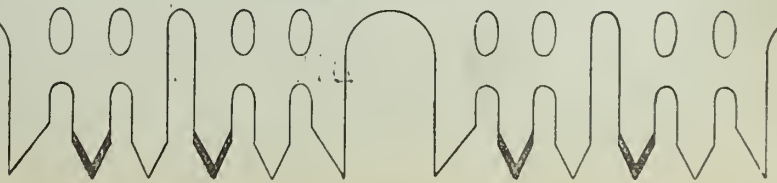
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ASK YOUR HARDWARE MERCHANT FOR IT

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EXTRA REFINED
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THIN BACK
SILVER STEEL
FASTEST CUTTING
MADE



THE PRESCOTT

Band Saw Mill

THE
PRESCOTT
BAND SAW
MILL

in different sizes



Ottawa, Can.,
July 5th, 1892.

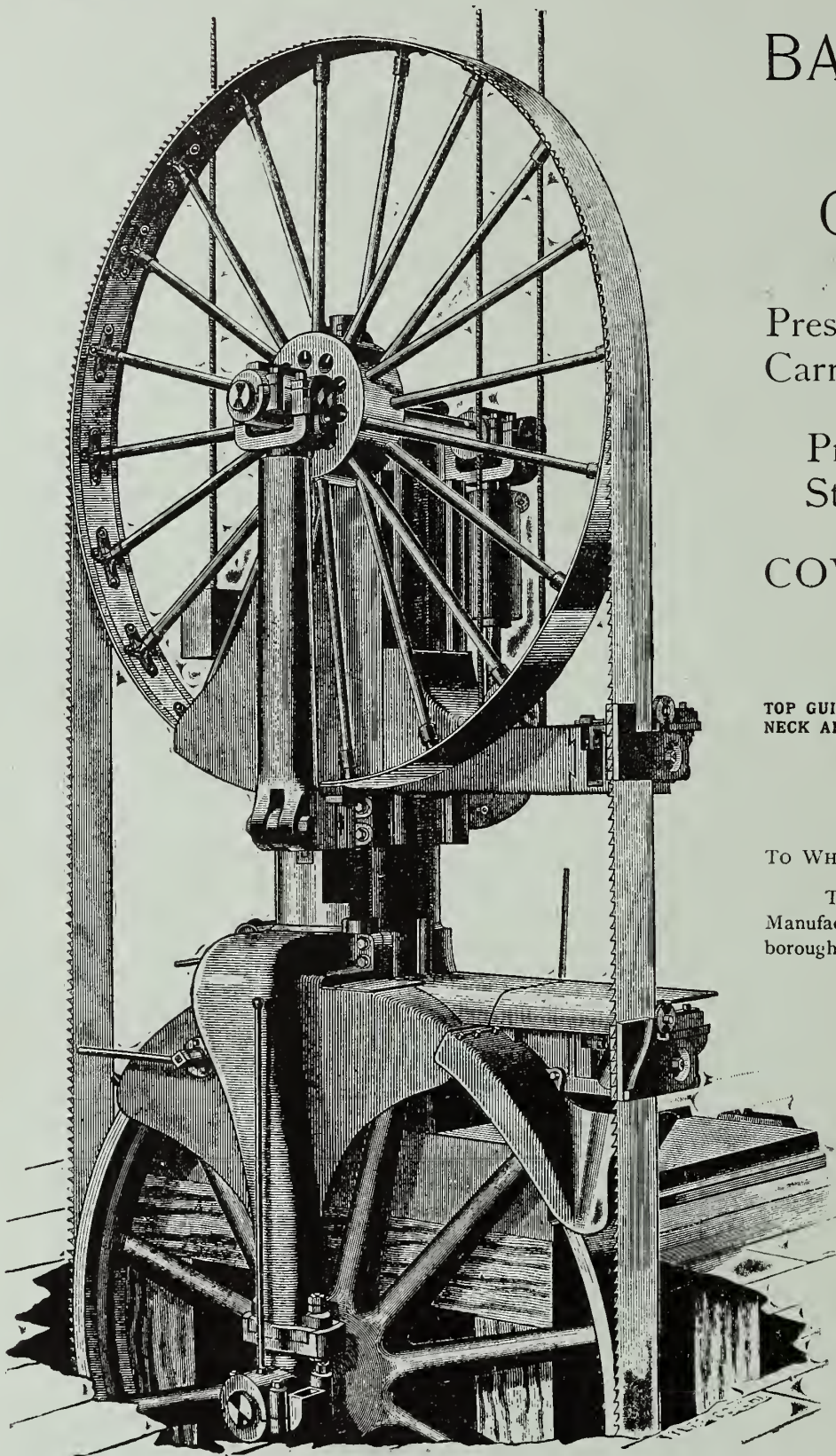
Dear Sirs:

It may interest you to know that on June 30th last, in eleven hours, the Band Mill—driven entirely by water—which we got from you, sawed

4,047 feet	1-inch
85	1 1/4 "
11,723	1 1/2 "
5,726	2 "
85,038	3 "

106,619 feet.

Yours truly,
PERLEY & PATTEE.



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MILL
CARRIAGES

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TOP GUIDE NOW MADE WITH GOOSE
NECK ARM



TO WHOM IT MAY CONCERN:

This is to certify that the Wm. Hamilton Manufacturing Company, Limited, of Peterborough, Ontario, have been licensed to manufacture and sell throughout the Dominion of Canada, the Band Saw Mill known and called the "Prescott Patent Band Mill," also the device for Saw Mill Carriage known as the "Prescott Patent Offsetting Mechanism," and by virtue of said license the said Wm. Hamilton Manufacturing Company possess the exclusive right to build and sell said machines for Canada, the plans for said machines being furnished or approved by the undersigned.

(Signed)

D. CLINT PRESCOTT,
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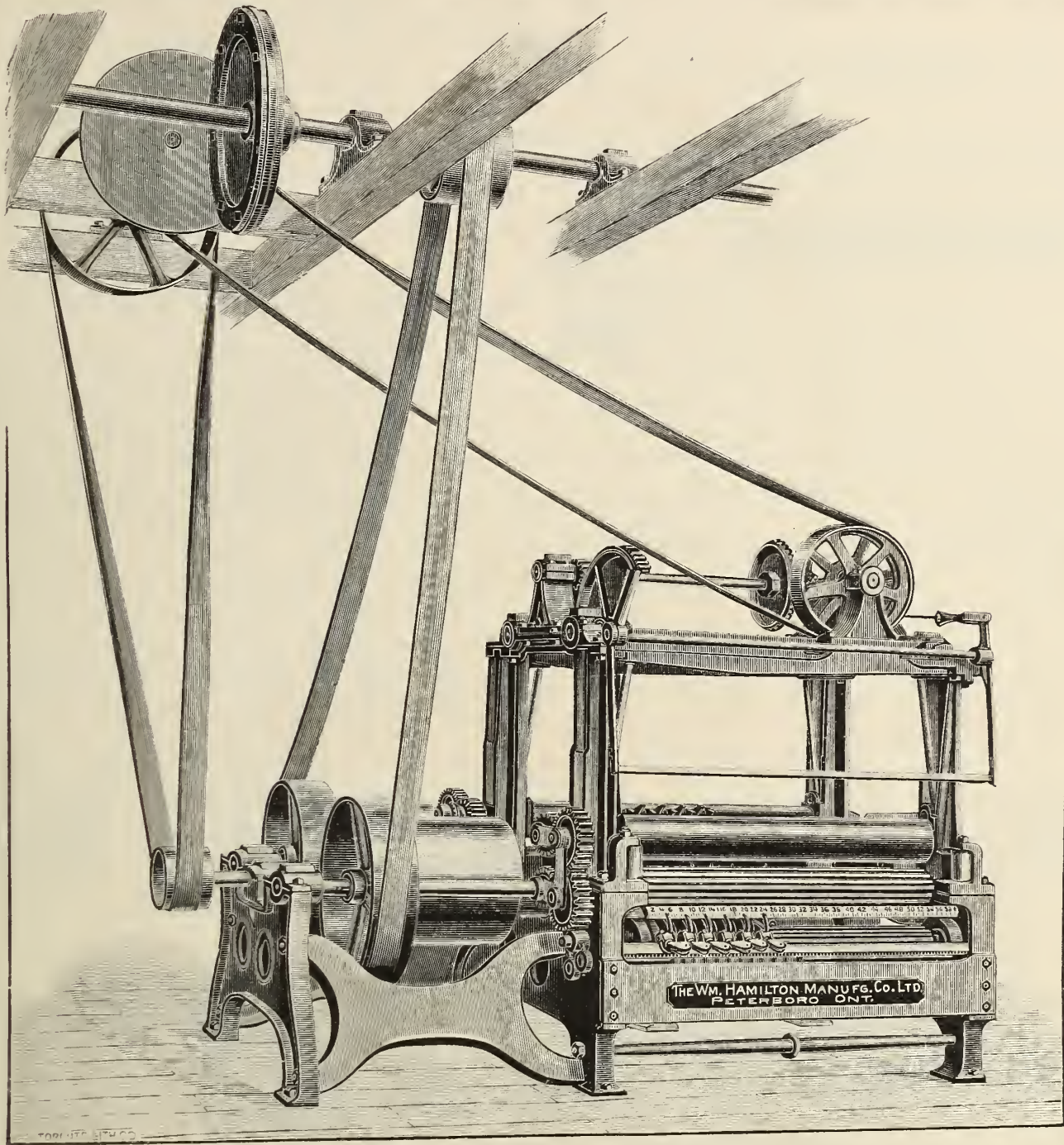
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Dauntless Shingle and Heading Machine

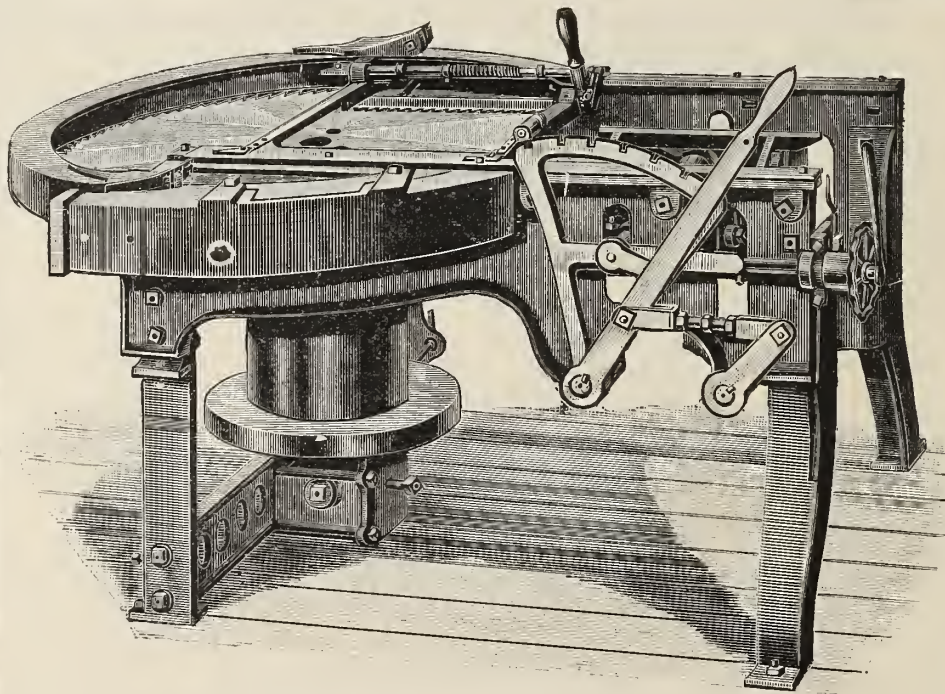
.. WILL make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

... Is of Iron throughout, very heavy and rigid, strongly bolted and braced.

THE CARRIAGE

... Is very light and strong, made of forged Cast Steel Plate, running on steel ways or tracks. Will take in a block 18 inches wide and 19 inches long, adjustable for 16-inch or 18-inch shingles.



— CAPACITY FROM 25,000 TO 50,000 PER DAY —

[COPY.]

LINDSAY, May 18th, 1893.

Mr. F. J. DRAKE, Belleville.
 Dear Sir,—The shingle machine we bought of you over a year ago is doing well. Last year we averaged over 32,000 shingles per day all through the season. We did not lose 15 minutes' time from all stoppages, and all repairs so far have not cost 50c. We expect to make a still higher average cut this year.

All our other machinery purchased from you is as good as the shingle machine. Your drag saw, with friction drive, cannot be beaten. We run ours 180 strokes per minute; with 6½ ft. saw it would easily make blocks for two shingle machines. The splitter, with balance wheel 4 feet diameter, weighing 1,000 lbs., is perfect and runs without the least jar. The iron frame shingle jointer with 40-inch saw is the only good jointer we ever saw. In fact, all your machinery, line shaft, pulleys, etc., give us the best satisfaction.

We expect to require another mill in a few days, and, if we do, will send you the order for complete outfit.

Truly yours,
 M. DOWEY.

P.S.—If any one wants to see a good working shingle mill send them to me. M. D.

(F. J. DRAKE)

PATENTEE AND ... MANUFACTURER OF **SAW, SHINGLE AND LATH MACHINERY**
BELLEVILLE, ONT.

THE CANADA LUMBERMAN

VOLUME XIV. }
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THE ORGANS ON THE LUMBER TARIFF.

THE *Globe* and *Empire*, representing opposite views on tariff matters, have given editorial space to a discussion of the question specially as touching lumber.

The changes in the lumber duties proposed by the Ways and Means Committee of Congress, are, in the judgment of the *Globe*, among the most important directly affecting Canadian trade. "All lumbermen" says the big Yonge street daily, "remember the boom that followed the reductions made by the McKinley Act, and the proposed changes will be still more effective in the same direction. Of course, the line between manufactured and so-called unmanufactured articles was necessarily drawn without system or reason." Having given particulars of lumber duties and the McKinley tariff the *Globe* then says: "The proposed tariff makes a clean sweep of the duties on lumber and wood of all kinds. The free list includes logs and unmanufactured timber, round, square or sided, firewood, hand bolts, heading bolts, stave bolts and shingle bolts, hop poles, fence poles, railroad ties, ship timber and ship planking, timber hewn and sawed, and timber used for spars and in building wharves, timber squared or sided, sawed boards, planks, deals and other lumber, pine clapboards, spruce clapboards, rough, hewn or sawed blocks for various manufacturing purposes, laths, pickets and palings, shingles, staves of wood of all kinds and wood unmanufactured. The benefits of these changes will be felt chiefly in the Eastern States, where the people almost entirely depend on Canada for their supply of lumber. The present tax is heavy on many of these lines. On blocks for hubs and other purposes it is 20 per cent., on staves 10 per cent., and on pine and spruce clapboards it is \$2 and \$1.50 a thousand, respectively. Canadian lumbermen will also share in the benefits, as the freedom will enable the people of the Eastern States to become greater consumers of their products. This class of goods is put on the free list, on condition that no export duty be imposed by the exporting country, on the articles mentioned. An export duty imposed on any of them will subject the entire list to the present American duties, when imported from the country imposing such duty. This, it is hoped, will settle the agitation for a Canadian export duty on logs. On manufactured or planed lumber there is still a duty of 25 per cent. This is more than sufficient to perpetuate the expensive necessity of unloading and reloading at the border, and of carrying lumber through Canada in its heavy and bulky form. The people of the Eastern States will still be paying, not taxation to the Government, but the price of wasted labor in Canada and at the border. A smaller tax that would be paid would lighten the burden and at the same time make a contribution to the revenue. The money taken from them by the impost might as well be spent in employing men to dig holes and fill them up again. Yet the protection theories are dying with encouraging rapidity."

The *Empire* points out that such strong pressure is being exerted by the owners of Southern pineries upon Congress as against the free admission of sawn and manufactured lumber to the United States that the present duty upon Canadian lumber may be retained. "In such event" says the Government organ, "the only thing to be done by our Government, as foreshadowed by Mr. Foster the other day, is to seriously consider the question of reimposing the duty upon logs. At present, under the free removal provision, immense quantities of logs are annually towed from Canada to the mills in Michigan and Wisconsin. Mr. Aubrey White, of the Ontario Government service, has reported this draught at 250,000,000 feet, but prominent lumbermen say that 100,000,000 feet will be the better estimate. Then if the

country gains nothing else it will have such profit as may come from the sawing of the logs upon this side, and the American owner, who for some years past has been basily depleting Canadian forests, will stand upon the same plane as the native lumberman. The owners of Canadian limits who live in the northern states are in favor of free lumber. They have lost so much by tows breaking away and by the wreck of boats that they would much rather prefer to saw the logs on their own limits. But while they can get logs into the States free of duty they would have to pay the impost duty upon lumber shipped from this side. Therefore while the question of the free entry of lumber is in abeyance in the States some of them regard with disfavor the proposition to reimpose the duty upon exported logs. If the American Government grants free lumber, all well, but if it does not then Canadian interests should be protected. If our forests must be sacrificed, and they furnish the only timber supply upon the continent worth speaking about, then Canadians should have the full advantage. Left to the Ontario Government, which is always impetuous and seldom economical, the timber lands would be stripped in a few years by foreigners and all the return which would be got would be a few figures in the annual report of receipts and expenditures. It, therefore, behooves the authorities at Ottawa to regard closely the progress of the Wilson Bill through Congress and, if free lumber is not accorded Canadians, to force American lumbermen who own limits upon this side to cut their lumber on their own limits and to employ Canadian hands to do the work."

LUMBERMEN'S VIEWS ON THE TARIFF.

ELSEWHERE in this issue of the CANADA LUMBERMAN we have discussed the proposed changes in the United States lumber tariff. Below will be found the views of prominent lumbermen in various lumber centres.

Mr. H. H. Cook, of the Ontario Lumber Co., said: "As the law stands to-day if Canada imposes an export duty on saw logs, the Americans will charge us an import duty of \$2 a thousand feet, board measure. We now pay \$1 a thousand feet. By the draft tariff manufactured lumber, from Canada, or foreign countries, will be admitted free. If manufactured, it will pay a duty of 25 cents per 1,000 feet. Unmanufactured lumber means sawn lumber; manufactured lumber means lumber that is planed and made ready here for building purposes. Should the talked-of export duty on saw-logs be imposed, we would have to pay \$1 per 1,000 feet. The McKinley bill took off \$1 on condition that there should be no export duty on saw logs. In my opinion, such an export duty would be most unfortunate for the Canadian lumber trade. If the new tariff were to pass, it would be a great thing for Canada's lumber trade. I don't think there will be anything more about this proposed export duty. I hope not."

"I never was in favor of an export duty on logs," said Colonel John I. Davidson, ex-President of the Board of trade, and of the firm of Davidson, Hay & Co, lumbermen. "I never was in favor of it, and I trust that in the face of the abolition of the American duty on lumber, no export duty will be put on logs by Canada. I was pleased to see that the new bill is intended to take off the duty on timber. It will prove of the greatest possible benefit to the Canadian trade."

Mr. David Gilinour, lumberman, Ottawa: "The lumbermen of Ontario just now are not saying much but keep on sawing wood. Four or five years ago free pine lumber would have been regarded as a great boon. To-day here's not many of us who care whether or not it is

made free. We have the pine, and the Americans are forced to buy from us to supply their own market. The abolition of the duty will give us a market for the poorer grades of pine lumber. If the Yankees want the higher grades the duty of \$1 per thousand does not cut much figure, in fact it has not kept them from buying so far. A few years ago we thought the taking off of the export duty was a blow at our industry. Since we have got to regarding it in a different light. New Brunswick and Eastern Quebec will be the chief beneficiaries, as they will be enabled to market their spruce."

Mr. John Donogh, (Donogh & Oliver) believes the proposed changes in the tariff would be beneficial to Canada. As he read the newspaper reports he took it that unmanufactured, that is sawn, lumber would be free. On manufactured, that is planed lumber, there would be a duty of 25 cents per 1,000 feet if there is no export duty on logs. If there should be such on import, the duty would remain as at present, \$1. He did not expect the Government would impose an export duty on logs now: there would be nothing to be gained by it. The proposals now made will tend to open still more the eastern and central markets of the States to the Canada lumber trade. The reduction two years ago of \$1 a thousand made a wonderful difference to the Ontario lumber trade, for it opened up a market for the coarser grade of lumber. The new tariff ought to be still more beneficial. I do not see what object American purchasers of timber would have to gain now by towing their logs. They would saw them on the Ontario side if the duty were taken off."

Mr. William Hurdman, Ottawa: "A decidedly good move, I am glad to hear, for it means better things for the trade. The striking off of that \$1 on unmanufactured lumber don't mean that the Canadian manufacturers will get the whole dollar to themselves. The American buyer will likely get half and the lumbermen here the other 50 cents. With regard to the manufactured lumber, the change will have the effect of causing more lumber to be dressed here, and consequently will give more employment."

Mr. G. B. Greene, manager of the Upper Ottawa Improvement Company, said: "Reducing the duty on planed lumber will certainly be beneficial, inasmuch as it will give more employment and keep our planing mills employed all winter as well as summer."

Mr. John Bryson, M.P., of Fort Coulonge, Que., said: "I am glad to hear that the duty is taken off the unmanufactured lumber, and it should be the same with the manufactured, on which I see they retain a duty. It will undoubtedly be beneficial to the trade here. My idea is to do away with all duty on timber."

Mr. E. B. Eddy, of Hull, says that despite the general reduction of United States duties, the Canadian Government should reimpose the export duty on logs. "Put on the duty on spruce logs," says Mr. Eddy, "and the Americans must pay the duty and keep on buying our logs. They have no logs of their own worth talking about. The mills in New York State are getting 70 per cent. of their logs from Canada. The spruce trade is going to be the future lumber trade, not pine. Put the duty on spruce and you will make miles of spruce land in Ontario and Quebec worth millions which to-day are not worth the bite of the bumble bee."

Mr. Hiram Robinson, president of the Hawkesbury Lumber Company, is not enthusiastic over the proposed changes in tariff. He says the changes may spur Canadian business slightly at present, but that they mean the more rapid destruction of Canadian forests for the preservation of the U. S. It will give the Americans cheaper lumber at the expense of Canada,

THE BY-PRODUCTS OF SAWMILLING.

IN the early days of lumbering in this country lumbermen could, with some reason, perhaps, exercise less or more prodigality, both when at work in felling the tree and likewise when cutting it into lumber. At a more remote time when the primary matter was to clear the land, that it might be seeded down to provide sustenance for man and beast, there was little else to do than to get rid of the timber in the quickest way possible, which was usually to cremate it. Time has worked many changes, and the small economies of business need to be exercised to-day by the lumbermen as much as by any other class of business men. Under the caption of "By-Products of Sawmilling" a writer in *Hardwood* enlarges quite profitably on this subject. He says: "The average operator of a sawmill relies for his profit on the good lumber he is able to turn out. He measures the chances of loss and gain wholly by the percentage of clear stock his logs will cut, and the price of such lumber in market. The mill culls are waste anyway, and if he gets within a moderate percentage of the cost of his common and shipping culls, he congratulates himself upon his closeness in figuring and economy in operating his mill. His profits necessarily depend upon his ability to get enough for his high-grade lumber to cover the greater part of the cost of his logs and all his profit.

"It is not difficult to figure out something ahead in this, by assorting his lumber so that it will run well to good, but such liberality not uncommonly defeats itself, for when the stock gets into market, and is inspected under the buyer's severer construction of the rules, the unlucky shipper very likely finds that he has a heavy freight to pay on much of it that will not bring cost at the delivery point. More than one saw mill enterprise that promised fairly enough in the beginning has landed the owner in bankruptcy because the timber would not make enough clear lumber to carry it. And are they not falling around us every day for a like reason?

"This result is largely due in nearly every case to the neglect of the by-products of the saw mill. Many mill operators look upon anything but lumber as unworthy their attention, and so they run everything that will not make boards or plank or dimension stock that is fit to ship into the conveyor and up the incline, to the slab pile or refuse burner.

"Thousands—yes, millions of dollars of as good profit as was ever made has been thrown away in this fashion, and few that lost it could tell where it had gone. They may know that they got back for their lumber less than the timber and sawing cost, and that their operation as a whole was a losing one, but they do not realize that the gain which would have served to turn the scale might readily have been made out of the stuff they burned up to get out of the way.

"No saw mill man can be said to have fully mastered his business until he has learned that every cent he is able to get out of stock that will not bear shipment, or sell at a profit, is so much made. It all goes to swell the profits, because the stuff must be made in order to make the good lumber of which it is the refuse. All the by-products of the saw mill have this advantage, that they are the savings from what is practically worthless, and hence their cost represents only the labor put into them after they pass the saw. It is the conversion of the useless into the valuable, and so long as the bare expense of the manipulation costs less than the value of the resulting product, there is money in it.

"This is a matter which has received more attention in the pine mills than among those sawing hardwoods, for one reason because the former are larger establishments as a rule, and are operated in a more scientific way. With many hardwood producers, the sole problem they undertake to solve is to get a certain quantity of logs into such shape that they are marketable, and to get the money for them. Their prime object does not seem to be so much to make the largest possible profit, as to turn their investment into cash quickly. This is a condition made necessary sometimes by the limited capital available, but it rapidly grows into a habit, and many never get beyond it. They begin and end their career as saw mill men without developing the scientific side of their business at all, being content with merely buying trees and logs, cutting them with more or less

economy into boards and plank, and burning everything that will not make such lumber.

"The notion is widely prevalent among such operators that small mills are incompatible with the requirements of economy, and that in order to take advantage of the chances for profit in the close utilization of material a big mill with all imaginable appurtenances is a necessary prerequisite. This a mistake. The man cutting five or six thousand a day is just as able to take care of the waste as one cutting four or five times as much.

The writer has in mind now a little single circular mill, located at a place which it has practically created, and where there is no other business, cutting from six to eight thousand feet a day, where the principle of working up the waste is carried out in detail. Besides the regular outfit of machinery, it has a band saw for making felloes, a sawing table, a lathe for making chair legs and for turning wood into various irregular shapes, cross-cut saws, etc. The result is that no cull stock is shipped from this mill, and what is left of the slabs and edgings needs very little grinding to make it as fine as sawdust. The owners have no difficulty in realizing a good profit from rather inferior logs, and their books show that a good deal of it comes from what they save out of the waste.

"In some large mills what is ordinarily regarded as the refuse becomes the basis of a distinct business. The waste is sold by the saw mill man at a certain price, small of course, and the buyer takes it and works it up. Every piece big enough to make a pill-box is saved and utilized, and even when the cost of the material is added a good profit remains. In many cases this plan of utilization will prove practicable and economical, relieving the mill man of the details attending the working up of his refuse stock, and furnishing another man with the means of making money.

"Another way is for the mill operator to furnish the machinery and the stock, and let out the job of working it up on shares or at an agreed price for the product. A shrewd, enterprising mechanic can usually be found who will gladly supply the skill, push and all needed help in keeping up the department for an interest in its results. By such methods as these, and others that will suggest themselves to a practical mill man, a deal of good money may be recovered from the slab pile that now represents nothing but loss to the owner. The machinery for working up wood into small shapes is not expensive, and it does not require such skill in handling as to make it difficult to secure competent men to operate it.

"The hardwood mill men are fortunate in having a larger variety of by-products than pine, where they are mainly lath and pickets, small pieces of pine being of little use for anything but kindling. But hardwoods of nearly all kinds can be worked up very closely, and made to yield a handsome revenue. They are used in so many shapes, and so largely in small pieces, that attention to the utilization of everything about a hardwood mill becomes of first importance. All mill owners cannot adopt the same plan, of course, but all should have some method of working the refuse into valuable by-products, as they may if they will but give the subject proper study.

"When everything possible has been made in the way of small articles of wood, there will still remain something of value in the residue—the sawdust, bark and chips that go into the furnace or the refuse burner. All this is material, just as good as an entire tree, for the manufacture of the numerous products derived from the destructive distillation of wood.

"In several places already large works are in operation turning out such things as wood alcohol, creosote, acetate of lime, pitch, ether, wood oil, and other things which sell readily and bring prices that show a large profit over the cost of making. There was an exhibit of an apparatus for this work, and of its products, in the Forestry Building at the World's Fair, which showed that remarkable results can be obtained with a comparatively small investment and at little cost. Figures are given in connection with it which indicate a profit of \$5 on the carbonization of one cord of wood, allowing \$2 as the cost of it, and a further margin if the wood-tar obtained is re-distilled. Using the refuse of saw mills,

which could be placed in the apparatus as cheaply as in a refuse burner, the margin ought to be large enough to make the process one of value to lumber makers. Possibly all mill owners might not find it practicable or advisable to carry the utilization of their waste material to this extent, but many of them might do so to their own profit and to the general advantage of the business."

BOILER EXPLOSIONS.

By E. W. LOCKWOOD, IN "TRADESMAN."

THE fundamental cause of explosion in steam boilers when traced to its origin is most generally found to be the result of foul and dirty boilers. By reason of mud, sediment and scale, the engineer is unable to properly secure the results desired, he must consequently force things, and as a result the shell of the boiler is overheated, expansion causes scale to give way, and the water striking the overheated plates creates a reaction which suddenly produces a strain upon the boiler. Something must give way and an explosion is the result. All this is due to the fact that the boilers were foul and in an unfit condition to do the work required of them. I lay down as a text this one fact: keep your boilers clean and you will have overcome the primary cause of explosions.

The world is constantly securing the results of brain energy of thinking men; improvements are daily being made; there is a constant and steady advance along the whole line of mechanical construction, which in the past decade has been so great that it is almost impossible to enumerate. Those improvements and inventions which have secured the most satisfactory results have been the simplest in construction and operation, and comparatively inexpensive to the user when the risk and loss of time are fairly considered.

One of the simplest in construction and operation for use in steam boilers, and the only one which will keep steam boilers absolutely clean and furnish pure water, has passed beyond the era of experiment and is an accomplished and recognized fact, and is the only appliance in the world which does and will do complete work to this end. Such an appliance is of inestimable value to the engineer, as it enables him to have complete control of his boiler and secure from it the best results possible and that without risk or danger.

The boiler being kept clean gives to the engineer a sense of security which he can never feel when operating foul and dirty boilers, and the time is not far distant when the demand for security from loss and risking of lives of engineers will become so strong that the proprietor of any establishment, who, from a miserable parsimoniousness, shall fail to have the life of his engineer properly protected in this and all other directions, will be looked upon by all right-thinking citizens as a criminal, and I am much mistaken if he shall not be so considered under the law.

TO COVER SUCTION PIPES.

IT is a very good plan to cover the end of the suction pipes to pumps or injectors, and, in fact, it is very necessary in most cases, unless the water is very clear, as it does not take much to clog up an injector, especially a small one. But do not make the mistake of putting a flat screen over the end of the pipe, as this does not give opening enough for the water to flow through. This must be very plain when we think the wires of which the screen is made occupy a portion of the space that the pipe covers, and, besides this, there is the friction of the water passing through the numerous holes through the screen, which is considerable if the water is passing at a great velocity. To be sure, at slow speed the friction may not be noticeable, but as the speed or velocity increases, it is very noticeable and must be taken account of or trouble will ensue from not having sufficient water for your pump or injector. The best form of a screen in a place of this kind, and the one recommended by injector makers, and others in similar business, consists really in a hemisphere of brass wire netting, the diameter of which is the same as the pipe which it covers. This makes a very cheap screen and one which gives a good margin for the friction of the water and for the clogging up of the holes in the screen by floating particles of dirt in the water.

VIEWS AND INTERVIEWS.

Orderly Disorder.

There are certain peculiarities which not only affect mill operatives, but mechanics in other trades. One of the first things that is impressed upon the young man who learns a trade, says the Woodworker, is the necessity of good habits, such as punctuality, order in the way in which he does his work, neatness in finish, etc. Comparatively few persons, however, save those specially endowed by nature, succeed in exemplifying, in the best manner, the idea of order until they have gone through a long course of discipline. Very fortunately their affairs for a considerable period are in such a condition as to merit the term "systematic disorder." Take it in the matter of the keeping of their tools. Instead of having an apartment of some kind with a place for everything and everything in its place, their tools will be in various places and so scattered about that gathering them together for any purpose whatsoever is a matter of no small labor. "Orderly disorder" is the term perhaps that describes the condition in which they keep things. Now disorder of this kind is worse than the usual form, for ordinary disorder is so baneful that sooner or later an effort is made at reformation; but orderly disorder on the other hand frequently deceives the victim into believing that he is orderly, so it remains unchecked and works the greatest harm.

European Cork Forests.

According to a recent report of a visit to the cork forests of Spain and Portugal made by M. Hickel, of the forestry department of France, the area of the Spanish cork forests is estimated by the Forest Department of that country at about 620,000 acres, distributed as follows: Gerona, 198,000; Huelva, 134,000; Caceres, 80,000; Seville, 74,000; Cadiz, 55,000; Ciudad Real 28,000; and Cordova 23,500 acres, the remainder being in ten provinces, of which the principal are Badajoz, Jaen, Malaga and Toledo. The cork-tree is only found in any considerable quantities in the northern provinces of Burgos, Santander, Zamora, Salamanca, Avila and Saragossa. As regards the volume of production, it appears difficult of estimation, more especially in the absence of any data relating to the home consumption. Some idea may be formed when it is considered that the quantity of prepared cork exported to France in 1891 amounted to 85,811 hundredweights, representing about 172,000 hundredweights of raw cork. Cork in the rough is represented by a quantity of about 20,000 hundredweights, thus making a total of about 200,000 hundredweights. To this amount must be added the total quantity devoted to home consumption and the amount exported which does not pass through France. According to the Spanish trade accounts, the total value of the cork exported from Spain to all countries in 1891 was \$5,370,000. Some Spanish authorities have estimated the total quantity produced at 275,000 hundredweights. As a cork-producing province Gerona holds the first rank in Spain, and Barcelona the last. The cork forests of Catalonia are concentrated in these two provinces. As regards the yield of the Portuguese cork forests, the trade returns of that country show for the year 1890 a total export of 453,650 hundredweights of cork in the rough and 42,427 hundredweights of cork manufactured.

What is Electricity?

The rapid advances that have been made during the past ten years, both in the practical application of electricity to the service of mankind in the knowledge of the principles of the science, have brought us in the opinion of S. F. Walker (in the London Electrical Engineer, to the point at which we are obliged to ask ourselves, What is electricity? If the advance is still to continue? Up till very recently, notwithstanding the wonderful guesses that have been made by those not actually engaged either in the study or the practice of electricity, and the closer and closer approximations that have been made by those mathematicians who have given attention to the subject, it may fairly be said that we knew absolutely nothing as to what the mighty force we dealt with was. And, in addition to this, it has not been necessary that we should know what electricity

was, so long as we were thoroughly cognizant of what it could be made to do. As far as the writer is able to understand the matter now, electricity is simply motion of the molecules of the different systems which are the subjects of electrical action, just as heat, light and sound are, and the only difference between these forces is the rate of the motion. The motion of sound, as we all know, is comparatively slow: that of heat and light very rapid. That of electricity would appear to be somewhat between the slow motion of sound and the rapid motion of the heat waves, whose motion is slowest. And it would appear that the wonderful adaptability which electricity shows for every kind of work is due entirely to the position which its rate of motion occupies in the scale of the energies. It would also appear that the reason this wonderful agent lay dormant for so many ages, and is even now only partially developed, is very largely, at any rate, because we have no sense which responds to the particular periods of vibration comprised within the electrical range. The writer will conclude this brief notice by remarking that heat currents would be far more efficient than electric currents if we could make use of them as we do the latter, and that, as he before remarked, the reason electricity is such a useful agent appears to be because its rate of vibration is sufficiently high to admit of rapid transmission, yet not sufficiently so to be destructive. It only becomes destructive when it is transformed into heat.

HEATING BY EXHAUST STEAM.

THE idea is very prevalent that it is expensive to heat a mill or factory by exhaust steam, says a paper devoted to steam matters. By this we mean that many mill owners, superintendents and shop hands believe this to be true, and this belief is founded on the fact that it is often expensive in practice; but we maintain that where this is the case it is due to an improper application of the system and not because the system itself is defective. A few days ago we indicated an engine there the whole of the exhaust steam is used for heating the feed-water. Under these conditions there is but one pound back pressure above the atmosphere; and even with a heavier load this was increased but little.

At not a very great distance from where this engine is located there is another, where the exhaust from it is used for the same purpose, but in this case the back pressure amounts to nearly fifteen pounds above the atmosphere, simply because the arrangement of the pipe is defective. The idea is that the exhaust steam must have free access to the atmosphere, and where the pipes which convey it do not incline downwards from the engine, suitable drips must be provided. If this is done, it matters not whether the exhaust pipe is ten feet or 5,000 feet, so far as creating a back pressure is concerned. When some men put up pipes for steam heating, it seems to be one of their objects to save in the first cost of pipe as much as possible, without much regard to what the results will be when they come to put them to practical use. This is worse in the case of heating by exhaust steam, for a small exhaust pipe means unnecessary back pressure, and this in turn means an increased forward pressure on the piston, which means more steam used, and more steam means more fuel, which costs money. Thus we can reason from cause to effect in a way that any one can understand if they will give it a little consideration.

Suppose the steam is to be carried from the engine room to the mill where it is to be used, the distance between the two buildings being 50 feet. Now, if we are to use live steam, the pipe in this open space should not be any larger than is actually needed to convey the necessary amount of steam, in order that the passage may be made as quickly as possible, to avoid excessive condensation; but if exhaust steam is to be used, then the pipe should be as large as the size of the cylinder calls for, or else the increased back pressure will far overbalance the benefits derived from a rapid passage of the steam. In either case they should be well protected from the cold air.

Valves and elbows are an obstruction, as a matter of course, but not to such an extent as some engineers would have us believe, provided they are large enough for the duty required and the valves have a full open-

ing; or, in other words, if the passage through the valves is equal to the capacity of the pipe. If the exhaust steam will not go through the pipes in the system with a light pressure, study out the cause of the trouble and apply a remedy in an intelligent manner.

WOOD TOOL BELTS.

ONE of the largest items in the bill of running expenses, aside from knives and cutters, is belting, says a writer in the Age of Steel. It is only necessary to look over the pile of old and so-called worn out belts to be found in almost every wood-working establishment, to satisfy one that not one in ten of the belts that are thrown aside as worthless are half worn out, but are simply rotten and spoiled by bad use and neglect. There are so many causes that contribute to destroy a belt before it is half worn out that it is impossible to enumerate them all. One of the most fruitful causes is improper tension. A belt is just as liable to be injured by running it at too great tension as by running it too slack, but some operators are never satisfied unless it is strained to its utmost strength, while others will never take up a belt so long as it can be coaxed to remain on the pulleys. In some cases of over-tension, however, it may not be wholly the fault of the operator. The driving pulleys may be too small, or too narrow face, to transmit the necessary power without submitting the belt to a ruinous tension. In such cases the only effectual remedy is to substitute either a pulley of greater diameter upon both the machine and line shaft of the same face, thereby increasing the speed of the belt or substitute a pulley of the same diameter, but wider face, thereby increasing the power.

In many cases, where there is ample belt power at a proper tension, belts are neglected and allowed to run too loose, and slip and burn. The operator should fully understand that the slipping of a belt generates heat, and heat has a tendency to rot the leather, just in proportion to the temperature. Another practice to be condemned is, whenever a belt becomes loose and begins to slip, instead of taking it up at once, to begin to dose it with rosin, machine oil, soap or anything else that may come to hand. Such materials may cause the belt to adhere to the pulley for the time being, but soon cease to act, and the belt is left in a worse condition than before. A belt of proper size and proportion to transmit the power required at a tension not exceeding 100 pounds to the inch in width, should last and do good service until it is worn down to one-half the original thickness.

DANGEROUS PRACTICE.

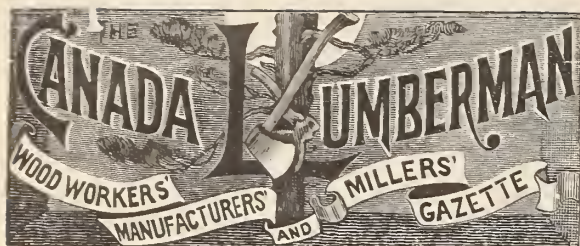
IT is always dangerous, says Locomotive, to calk leaky joints, or screw up nuts, about boilers that are under pressure, and many accidents result from doing so. The other day we learned of an accident of this kind. The engineer undertook to tighten up a leaky cap on a sectional boiler while the boiler was under steam pressure. A slight twist did not seem to do any good, so he gave the cap a good, vigorous wrench. Immediately steam and boiling water began to pour out, increasing in quantity every instant. He could not get away quickly enough and was severely scalded all over the upper part of his body. His assistant was down in a pit in front of the boiler and was immediately overcome by the scalding cloud. The assistant was dead when the cloud had subsided enough to allow of his removal.

DON'T PUT IT OFF.

DON'T let anything connected with the boiler in your charge run from bad to worse, with the idea that at some certain time you will have a general overhauling and repairing, because an accident may occur at any moment, involving serious loss of life and property.

NOISY OIL FUEL.

IF oil is to be the future fuel for steam making, some inventor who will devise an easy way to get around the noisy part of the burning, will be a benefactor if he doesn't make a cent, says an exchange.



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ARTHUR G. MORTIMER

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J. S. ROBERTSON,

EDITOR.

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing them editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trade in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 25 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

FREE LUMBER BILL.

ON another page of the LUMBERMAN we publish the views of a number of prominent lumbermen on the proposed changes in the United States tariff making lumber in a large measure free. We also place elsewhere the editorial comment of Empire and Globe, as representative of the two great political parties holding opposing views on the tariff question.

The subject has been prominent in the trade discussion of the month. About the middle of November a despatch from Ottawa contained the announcement that the Government were seriously considering the matter of re-imposing the duty on logs, and alarm was felt in certain lumber quarters, and there were members of the trade who did not hesitate to express themselves strongly on the imprudence of this disturbing element being thrown into business at the present time. It was not many days, however, before news came from Washington that the Ways and Means Committee had brought down their long-expected tariff bill, and in this lumber was placed on the free list. The exception is made of manufactured or planed lumber on which a duty of 25 per thousand will be exacted. Otherwise the bill, as covering the requirements of a free lumber bill, is quite complete. Spruce, which had been taxed before, is on the free list, and by this step what was considered by many an invidious and inexplicable distinction in the tariff as between pine and spruce has been removed.

Whilst lumbermen are in some measure still divided in their opinion on the benefit, if any, likely to come to Canada from the proposed changes, there is no doubt that the measure is in a very general sense acceptable to the Canadian trade. The Finance Minister, Hon. Mr. Foster, has said himself in a recent interview that any movement in the direction of re-imposing the log duties would be contingent upon the United States continuing their present heavy duties on Canadian lumber and pulp. The proposition is now in a different direction, and the bill, if it becomes law, will have re-

moved the ground for action by the Canadian Government.

The bill may not become law, and certainly not without opposition from the lumbermen of the Southern States and some other points. But the committee have no doubt weighed the case carefully, and late despatches state that the disposition in Congress is to hurry through the measure, so that in its various details it may become law in March.

Quite likely by another issue of the LUMBERMAN some developments may have taken place and a more perfect knowledge obtained of the exact interpretation of the measure. Any views from our readers will gladly be given place in these columns.

EDITORIAL NOTES.

SHINGLE men in the Puget Sound country have experienced some difficulty lately in securing cars enough on the Northern Pacific. The trouble is being overcome by the completion of the Soo line, which gives the Canadian Pacific a line of its own to Minneapolis and St. Paul, enabling it to haul lumber and shingles east.

A DULUTH despatch reads: "Careful estimates show that 235,000,000 feet of logs, are being cut this winter by the lumbermen of this district, besides some 50,000,000 feet that are put in by local men for outside mills, the Meyerhausers, the Rat Portage mills and others. About 124,000,000 feet of logs are on hand, giving about 350,000,000 feet for the mills next summer."

J. W. HOWRY & SONS, of Saginaw, Mich., who recently bought a large tract of timber near Peterboro' Ont., will, it is said, erect a saw mill at or near Peterboro', and by building a short line of railroad will connect with a line running to Toronto, and will move the manufactured product to market that way. They are at present building two large shanties near the Peterboro' limits, and will give employment to a large number of men.

WITH the enormous railway development now going on in South Africa it is believed that there might be a good demand for Australian woods for sleepers and other purposes. Mr. Walter D. Davis, of Western Australia, who has recently been in South Africa pushing trade in Western Australia jarrah and karri timber says he obtained at Durban a photograph of some piles, formed of karri wood, showing them to be as sound and solid as when driven in twelve or fourteen years ago.

OTTAWA lumbermen are rapidly completing plans for the winter's work. Messrs. Bronson & Weston have nearly all their men up the river which they will send this year except positions for a few of their reliable mill hands. Their shanties are on Big Lake, Schyan, Rockliffe, Mattawa, Quinze and the northern tributaries of the Madawaska. There are two shanties in each of these districts. Mr. J. R. Booth continues to send up large gangs of men to his valuable timber limits in the Nipissing district. Mr. Booth's other shanties are pretty well scattered. Messrs. Buell, Hurdman & Co. will have about the same number as last year scattered in their different shanties up the river.

THE loss of the steamer Fraser on Lake Nipissing, to which reference is made in our news columns, was a lumber casualty of more than ordinary sadness. There is a pleasure in all this sadness, however, in noting the very ready and kindly manner in which the owners of the vessel, Messrs. Davidson, Hay & Co, have set about to relieve the bereaved relatives. In this work of love they have had much practical sympathy extended to them by residents of Toronto and elsewhere. Wm. Ryan, commission merchant, Toronto, subscribed \$200; W. R. Johnston, wholesale clothing, Toronto, \$100; Messrs. Geo. S. Thompson & Co., lumber merchants, Lindsay, \$100; and others besides these have been thoughtful in a like direction. Storekeeper Douglas, who was one of the drowned, left a widow and six children. Two of his daughters have been placed in the position occupied by their dead father at Cache Bay.

CONSIDERABLE interest has been manifested in the sale of timber limits at the Crown Land Office, Fredericton, N. B., during the past month. Among the purchasers were the Muskeke Mill & Lumber Co., of Toronto, who acquired rather more than 200 miles of limits. Other buyers were Kilgour Shives, A. E. Alexander and George Moffatt.

ENCOURAGEMENT is given to lumber shippers in British Columbia by Mr. J. A. Curtis, of New South Wales, who has been visiting the Pacific coast, and whose views on lumber matters are given in our E.I.I. page. He says that ten-elevenths of the lumber that reaches that Australian colony comes from the United States. He would like to see the sister colony Canada control the major part of this trade. It is pointed out, however, that in order to do this British Columbia lumbermen must improve their methods. The lumber will need to be more carefully cut and dried, and doors and other articles must be made in a style to compete with those made in San Francisco. This is a condition of success in any business and we have no doubt that our western brethren will do all that is needed in these respects.

A MECHANIC who has occupied a number of responsible positions, in which he had followed others in conducting manufacturing operations, and been obliged to accept things pretty much as he found them, shaping his course largely to suit what had been previously done, got to wishing finally that some day he might happen to be the first man in a new enterprise where he could lay out things according to his own ideas, and have none of what he regarded as the mistakes of others to either continue or correct. He finally secured such a place, and after some experience in it, declared that he had never before fully understood the difficulties of the pioneer, his multitudinous chances for mistakes, and for leaving the bars down for future criticism by others. He now thinks it is easier to follow after others, do as well as you can, and then have your predecessors to blame for shortcomings; all of which again illustrates the truth that each man best appreciates the difficulties of his position, can in the nature of things never fully appreciate the difficulties of others, and is apt to conclude that they haven't any to speak of.

THE fact that a number of United States lumbermen owners of considerable timber limits in Ontario, met together in the city a few weeks ago, gave rise to less or more speculation in the newspapers as to the purpose of the meeting. These might have come together for consultation touching various matters of business in which they would have a common interest, but a despatch which was immediately sent broadcast throughout Canada and the United States stated that it was the unanimous opinion of the meeting that the duty imposed on Canada on lumber imported into the United States should not be disturbed. A Michigan correspondent of the Northwestern Lumberman commenting on the report remarks: "The report may be true, but if the retention of the duty will have the effect of inducing the Canadian Government to reimpose the export duty on saw logs, there is no question that Saginaw valley lumbermen who depend upon Canada for logs will not stick for the retention of the \$1 duty on imported Canadian lumber. At least this opinion is expressed by a number who have been seen on the subject. And it seems to be the opinion among them that if the lumber duty is retained, it will result in some action on the part of the Dominion authorities to prevent the continued export of logs." This comment, taken along with the statement made by the Hon. Mr. Foster that if lumber is not made free by Congress the Dominion Government are likely to re-impose the log duty, seems to size up the situation just about as it exists. Among those present at the meeting in question were A. K. McIntosh, of the Shepard & Morse Company, of New York and Burlington, Vermont; E. T. Canington, of Bay City, president of the Spanish River Lumber Company; H. A. and J. F. Batchelor, of Saginaw; Thomas Cranage and S. G. M. Gates, Bay City; Green B. Peck, of Cleveland, Ohio; John M. Howry, Col. T. A. Bliss, and John Quinn, the representative of ex-Gov. Alger.



A WRITER in a lumber contemporary criticises the proposed method of an Ottawa firm of seasoning beech and birch. Having described the method he then says: "After all is done, this wood is neither beech, nor birch, nor walnut in appearance. Neither has it taken on any new quality that makes it superior to either beech or birch, both of which are handsome woods, or that makes it equal to walnut. These bogus, imitation, artificial, counterfeit and filled woods make a lover of fine natural grains, hues and other characteristics very tired, in fact, fatally tired."

"We are busy cutting railway ties and shingles," said Mr. W. J. Brooks, of Grimesthorp, in the Algoma district, "and are finding a demand for all we can cut. I have no thoughts that the cedar shingles of British Columbia will come into serious competition with our pine shingles. I have an idea that the cedar shingles of the coast are injured by the process of kiln drying that seems necessary to them."

The statement is made in a trade contemporary that a United States lumberman who has devoted some consideration to the question of lumbering in Canada believes that the main opposition to the export of logs free of duty from the Georgian bay district to Michigan mills comes from mill owners in that district, for the reason that at present there is very little demand for the product manufactured in that section. Eastern buyers will not visit isolated mills for stock if they can avoid it, preferring to purchase at large manufacturing centres. The Canadians think if the logs did not go to Michigan the mills in eastern Michigan would be forced out of commission, the American owners of Canada limits would be forced to erect mills in Canada, and in this way a trade would be built up.

An Ottawa millman has placed the output of the Chaudiere sawmills this season at 200,000,000 feet, distributed as follows:

J. R. Booth's large mill.....	65,000,000
The old Perley & Pattee mill.....	15,000,000
Bronson & Weston.....	50,000,000
Buell, Hurdman & Orr.....	30,000,000
Gilmour & Huston.....	15,000,000
W. C. Edwards' N. E. Mill.....	25,000,000
Total.....	200,000,000

The mills would close down about the first of December, he thought, and he considered the outlook in sawn lumber for next season as fairly good. He believed the Chaudiere men will have as many men cutting logs in the woods this year as last, and wages he thought would be about the same.

The timber limits of the Nipissing district have been inspected during the past few weeks by a number of Buffalo capitalists, who have been under the guidance of Mr. Geo. S. Thompson, of the firm of G. S. Thompson & Co., whose headquarters in the timber business are at South River, Lake Nipissing. The party consisted of Mr. Geo. W. Partridge, ex-president of the Buffalo City Council, Ald. John Kamman, Mr. Frank L. Bapst, and Mr. Edward Beck. Mr. Partridge said: "We are going to Lake Nipissing at the instigation of Mr. Thompson, and have reason to believe that there are good chances for investment there. We intend going to Powassan and across Lake Nipissing into the timber district. If we find that everything is as we expect we will accept the free grant rights given by the Canadian Government, which consists of 200 acres for married men and 100 for single. Should we decide to invest it will be necessary for us in future to spend about six months of the year in Toronto."

When the Hon. Mr. Foster, a fortnight ago, intimated in a newspaper interview that the Government were

likely to re-impose the export duty on logs, the Ottawa lumbermen were quick to protest against the step. Alex Fraser, of Westmeath, said "It would be an act of madness to put an export duty on logs now." G. B. Pattee remarked: "Imposing an export duty on logs is not the way to induce the United States Congress to give us free lumber." Said a member of Buell, Hurdman, Orr & Co.: "We are not favorable to a policy that would drain our pockets." Hon. E. H. Bronson, M.P.P. said: "Such a step would involve a serious loss to lumbermen, and would limit the output considerably. It would also necessitate a reduction in the staff of employees and very likely a reduction in wages. It means a loss any way you look at it." Mr. Levi Crannel states that the re-imposition of an export duty on logs would mean a loss of at least \$250,000 a year to the lumbering industry of the Ottawa valley.

Mr. J. A. Curtis, who has been engaged in the lumbering business in New South Wales for thirty years, is just now visiting in British Columbia. To an interviewer he said that during 1892, not one of the best years, about 22,000,000 feet of lumber were imported to New South Wales from Puget Sound and other United States ports. "There is no reason," said Mr. Curtis, "why all or most of the lumber used in New South Wales should not come from British Columbia. We are Britishers over there, and consequently would prefer to deal with Britishers. The object of my trip is to endeavor to arrange with British Columbia mills to supply us with lumber. I have had one shipment from here, but it was not equal to Tacoma lumber. There was a great deal of sap in it and it appeared to be carelessly cut. The lumber is just as good as the best, and I think I will probably make arrangements with some mills. They will be able to remedy the defects when pointed out to them. You might also supply some of the doors used in Australia, which comes from San Francisco. San Francisco doors are made of sugar pine which is expensive. Cedar doors should be just as good and could be supplied more cheaply. But they must be made of the same style, as the people have become accustomed to it." Mr. Curtis will visit the different mills of the province during his stay and expects to make arrangements with them.

Chatting a few days ago with Miss Lillian Phelps, the talented lecturer of the Women's Christian Temperance Union, I learned something of the work of this excellent organization among the shantymen of the Ottawa district. I am told that the society employs a missionary at an outlay of \$50 a month to spend the winter around the camps, holding religious services on Sundays, and as occasion throughout the week will permit. A good deal of time is also spent in conversation with the men in their shanties after the business of the day is over and in reading to them, an exercise that is much appreciated, especially when the missionary is a good reader, a qualification that is sought for in such an office. It had been the practice to send to the camps quantities of newspapers for the men to read in spare time. Experience has shown, however, that the men did not always possess the reading habits to select from the papers as wisely as had been hoped for. The difficulty has been very successfully overcome by the ladies, though at a good deal of labor, by making selections of stories, sketches and illustrations from the papers before they are sent to the camps, and having them made up into scrap books on linen. I am told that the shantymen take a large amount of enjoyment out of these cleverly-constructed scrap albums. As is the case with not a little work of a philanthropic character its more perfect development is hampered for want of sufficient funds. I believe that lumbermen appreciate such work as the W. C. T. U. are doing for their employees, and, whilst it has not even been suggested to me, I have no doubt that Miss Phelps and her co-laborers would appreciate any assistance that would come to them for this work.

"Yes," said Mr. W. C. Edwards, the genial Rockland lumberman and M. P. for Russell county, "the old McClymont milling property, the site of one of the first saw

mills in the Ottawa valley, now belongs to our firm. The property is valuable to us, being near our new mill on the western side of the Rideau river. It has been in the market for some time, but the transfer agreement was completed on Monday last." Asked as to the price paid, Mr. Edwards declined to name it. The McClymont property in New Edinburgh includes the old woollen mill, the saw mill and grist mills at present run by the McKay Milling company, and office on the other side of Sussex street at the end of the second New Edinburgh bridge. The present sawmill was built in 1872 and is consequently an old mill, yet by no means the most aged in this neighborhood. The sawmill has passed through the hands of many different owners, and has undergone but little change since the time of its inception. For the past few years the McLaren estate has controlled the mill, but their Gatineau limits being all sold to W. C. Edwards & Co. they had great difficulty in securing logs sufficient to keep the saws going. This year the mill did not run for more than six weeks, when it was compelled to close down for scarcity of logs. All three of these concerns are run by water power secured from the Rideau. The flume into the saw mill underwent extensive repairs this past summer and is now in better shape than for years past. The eastern channel of the river is said to be the deepest although the difference is not very much. The western channel generates power for the new mill on the site of the McLaren mill which was burned a couple of years ago. Mr. Edwards controls the power of the Rideau river on both channels, thus guaranteeing power for all his concerns which might be cut off under other circumstances. The McLaren lumber which is piled on the lately purchased property, will be removed during the present winter. Mr. W. C. Edwards would not say what his intentions were concerning his recent purchase, but it seems to be understood that the present industries will continue at least for some time to come. The property is valued at over \$100,000.

How true it is that business is made up of details. And yet it is equally true that it is the details of business that are constantly neglected by business men. A contract is taken and before the contractor is half way through with his work he discovers that a mistake has been made. He looks into his figures again, with a little more care than he did the first time, and finds that in certain details, in place of making careful calculation he took things for granted and now finds himself out. As a writer has said in a clipping that has come under my notice, he "guessed" that certain things were all right, but did not attempt to square his guesses with facts. To illustrate this the writer says: "One day last week I saw two sets of figures on one contract. One of the men who figured understood his business, and his figures were to a cent. The other one guessed at the cost. Their figures were not far apart, for the job was not large. The guesser's bid was below the exact figurer's bid, and he got the job. He has since told me that "there is no profit nowadays in this line of work." The other man assured me he knew "exactly how much Mr. Guesser would lose on the job." His figures agreed almost to a cent with what the "lucky" bidder confessed he was "out" on the work. These two men represent the two classes of mechanical workers, those who fail and those who succeed. These classes are distinct. The guessers "get the work at any figure." They soon do enough work to lose all they possess. The exact figurers "get a fair profit or let the job go to someone else." They may work less, but they make a profit on all they do, and they soon do little enough to roll up a good bank account. It may sound paradoxical to say that one man succeeds in getting so much work that he fails, and another succeeds in getting so little that he grows rich, but there are enough examples of both to prove that the seeming paradox covers an important business truth. The man who is master of the details of his business is a powerful competitor. He knows when he reaches the point in bids below which he will not, cannot go. His guessing competitor has only one limit in view. He aims to go below his competitor, no matter how low the competitor sets his figures. How many men can tell to which class they belong."

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

WINTER dullness has not yet settled down on the lumber district of the Ottawa. In fact there has been a good deal of stir throughout the month, and shipments have been going forward with fair alacrity. There is an improvement in the South American markets and one firm has been busily engaged shipping a cargo of 12-inch stock, about 1,250,000 feet, to Buenos Ayres. The freight will run something under \$9.00 a thousand. Shipments for a good part of the month have averaged 2,000,000 feet a day. Many of the mills are still running, though there is a general desire on the part of the men to get off for the woods. For road cutters, from \$14 to \$16 a month was offered, according to the men; for teamsters \$16 and \$18, and choppers from \$18 to \$22.

INDIFFERENT LENGTHS.

Senor Achilles Chiesa, lumber dealer of Rosario, in the Republic of Argentina, South America, has been visiting in Ottawa, and believes there is good opportunity to develop the lumber export trade with his country.

It is estimated that about 900 barges have carried lumber cargoes from here this summer, which will represent in the vicinity of 250,000,000 feet that has gone forward by water, while about 100,000,000 feet so far has gone forward by rail.

The depositing of mill refuse in the Ottawa will give rise to further litigation in the case of J. Ratte, who claims that his business as boatman has been seriously interfered with from this cause. He is suing the Chaudiere mill men for \$30,000, which he claims is the damages his business has sustained. In a previous suit Ratte recovered \$3,500. The result of this suit is looked forward to with considerable interest all over Canada where mills are located on navigable rivers, as it will establish a precedent as to the right of mill men to deposit their sawdust and mill refuse in these rivers and streams.

The logs which broke loose from the Deschenes boom in the gales of last spring and went over the Chaudiere falls, have all been picked up and towed to land. Some one thousand and five hundred belonging to Buell, Hurdman & Co. have been stacked opposite Nepean point in large piles ready to be drawn up to the mill pond this winter. There are also about five hundred in the boom at Duck Island which will be drawn up this winter by the same firm. The other logs which went over the falls, some thousand in number, belonged to a firm down the river, and have long ago been delivered to their respective ponds.

OTTAWA, Can., Nov. 27, 1893.

NEW BRUNSWICK LETTER.

[Regular correspondence CANADA LUMBERMAN.]

RAILWAY ties are being bought in the province for the New York Central railway. George Hubbel, representing the railway company, and George Keefer for a New York lumber firm, are here in connection with the business.

A saw and shingle mill is being erected at Andover by Thos. Gosline.

F. W. Sweezy, sawmill, Nappan, N.B., has assigned. The estate is a small one.

Amos Oxley, of River Phillip, N.S., intends putting up a lumbering mill on the Sugar Loaf.

Elias S. Weeze, for many years a leading lumber operator in Kings Co., having a mill at Penobsquis, is dead.

There has been shipped to St. Pierre island, near Newfoundland, 235,205 feet of boards, by Miller & Woodman.

It is very generally conceded that this year's cut on the Miramichi will not reach one-half the cut of last year.

Clarke, Skilling & Co., of Glasgow and Boston, have purchased a site near Newcastle, on the Miramichi, and purpose erecting a mill to cut spool wood. The mill will run summer and winter.

Considerable shipments are being made to the United Kingdom. Three cargoes have been shipped within the past week by Alex. Gibson, and one each by W. M. Mackay and George McKean.

On the 16th inst. a fire broke out in rear of Humphrey & Trites' sawmill, at Petitcodiac, and in very short time

the mill, together with large piles of different kinds of lumber, was totally destroyed. Cause of fire supposed to have been hot box. Loss probably in the vicinity of \$15,000.

Richards & Hickson's mill at Newcastle, is to be fitted up next year for sawing long lumber, the manufacture of shingles to be curtailed. It is believed by some that the production of shingles in the province has been overdone.

It is not thought that much encouragement will be found in lumbering this winter. Hundreds of men, it is anticipated, will not be able to get work at all, and good choppers would be glad to get \$13 per month. The average wages are \$17 as against \$20 last winter.

The official report of the Fredericton Boom Company shows the following amount of lumber rafted last season:

Hemlock.....	139,300
Pine.....	7,375,100
Cedar.....	21,628,220
Spruce.....	109,411,160
Total.....	138,553,780

ST. JOHN, N.B., Nov. 24, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

TWO conditions are paramount in lumber in the Saginaw district: (a) decided dullness in trade, (b) unquestioned stability and firmness in prices. These are not usually concomitant conditions. When business sags, prices, ordinarily, show a sympathetic depreciation. Why this is not so in Saginaw is a question that is giving rise to various opinions among lumbermen here. Mr. Mershon says that probably 50,000,000 feet of lumber have been brought from Duluth and Canada by Saginaw yard, planing mill and box factory men for the simple reason that they could lay the lumber down at their mills cheaper than they could buy sounder stock at home. This condition gives ground for the contention that Saginaw prices are abnormally high considering the state of trade. The contention of those who hold the lumber is that there is nothing in the present depression to warrant a break in lumber prices; that an anticipated revival of business in the spring will prove this, and, fortunately, the men who own the lumber are strong financially, and can afford to hold on. Less sanguine men are predicting not simply that there will be no boom in the spring, but that there will be a further decline. Business will not recover as speedily as some may think from the present depression. Time will show who is correct. One thing is quite certain, that logging operations will be less brisk than a year ago. This is shown in the overstocked condition of the labor market, in a shrinkage of wages, and a depreciation in charges for supplies. Lumbermen will reap the gain in a reduction in the cost of logging operations for the winter.

A CUTE LOG STEAL.

The story is being told of a slick log stealing job on the Saginaw. About two weeks ago a raft of 1,800 logs from Georgian Bay was towed at night to the mill boom of James Patterson of this city. The raft was the property of Hitchcock & Bialy, of Bay City, and contained approximately 200,000 feet. A man representing himself as L. E. Smith, of Bay City, went to S. W. Tyler & Son, Saginaw lumbermen, to whom he stated that he was the agent of the firm who owned the logs, and that they had been sold to James Patterson, who found himself unable to pay for them as agreed, and, therefore, he desired to sell them to Tyler. The story was given an air of plausibility by the fact that one end of the raft rested on Patterson's boom, and so Mr. Tyler told Smith that he would take the logs, and advanced a small sum of money for towing purposes. S. W. Tyler & Son arranged with the Michigan Lumber Company to saw the logs, and they were taken to that mill and work was at once begun on cutting them. In the meantime a man engaged in the log towing business happened to be in Hitchcock & Bialy's office at Bay City one day and mentioned that he had lately been to Saginaw and had there seen some logs with the firm's mark on them. Of course Hitchcock & Bialy had not sent any logs to Saginaw as they had needed all they had purchased and were in the market for more. They at once went to Saginaw, and after some search found their logs at the Michigan Lumber Company's mill. Ninety thousand feet of logs had already been converted into lumber, and both lumber and logs were seized on a writ of replevin. A warrant is out for the thief, but at last accounts he had not been apprehended. The robbery is regarded as one of the most impudent and bold of any ever attempted in the lumber business of this section.

BITS OF LUMBER.

A light output of cedar is anticipated in Northern Michigan this winter.

Colonel Bliss, of Saginaw, has closed up the mill run by him at Carrolton.

Not a few mills along the Saginaw are still in operation.

Sibley & Bearinger, of Saginaw, will harvest about 2,000,000 feet of logs adjacent to Duluth this winter.

The largest shipment of lumber by one concern this season to November 1 is that of 70,000,000 feet from the Kirby-Carpenter mills.

Turner & Fisher, of Bay City, will stock their new mill, known as the South End Lumber Company, with 20,000,000 feet of Georgian Bay pine.

Wylie Bros., who have been large manufacturers of shingles for a score of years, will convert their shingle mill into a band saw mill. They say there is no money in shingles.

Where the Michigan Central, Mackinac division, and the Flint & Pere Marquette, handled 311,000,000 feet of logs last winter, the work this season will, it is expected, be comparatively light.

There is very little sale for hardwood lands in Northern Michigan just now. A party who owns 23,000 acres in Missaukee county alone, and large tracts in other localities, states that there is practically no demand.

Flatt Bros., a Canadian firm, have a large force near Pori getting out square timber for shipment to England. Over 1,500,000 feet have been skidded. They also have several camps on the Duluth, South Shore & Atlantic road in Ontonagon county.

The larger part of the logs brought over to these shores from Canada by J. W. Howry & Sons have been manufactured at the mill of Green, Ring & Company. This firm count on banking in Canada the coming winter about 20,000,000 feet, which will be about the same output as last winter.

H. G. Emery, one of the well-known lumbermen of West Bay City, has been stricken with paralysis at Mobile, Ala. Some years ago Mr. Emery invested in southern pine with Mr. H. W. Sage, and considerable of his time has been given to operations in that part of the Union. Hopes are entertained of his recovery.

A number of disastrous fires have occurred with Michigan lumbermen lately. On 5th inst., a large quantity of lumber on the dock of Melchers & Nerreter, on Crow Island, was destroyed. Loss about \$16,000; insurance, \$8,000. The sawmill of S. M. Lear & Co., one of the largest lumber plants of the Saginaw river, was also completely wiped out by fire.

The shipments of lumber and other forest product from this port by water during the month just passed amounted to more than that of any other month this season. Of lumber there were 12,000,000 feet; 700,000 shingles; 400 cords of sawdust; 855 cords of slabs and 15 tons of barrel staves. The shipments of lumber during the season have reached a total of about forty-five million feet, which is a very small figure for the lumber business in this city.

The lake shipments from the port of Menominee the present season to the first of November, according to the custom house record, were 180,000,000 feet, and from the port of Marinette 215,000,000 feet, making a total of 395,000,000 feet. The Kirby-Carpenter Company has, in addition to its lake shipments, sent out upward of 30,000,000 by rail, which added to other rail shipments by other mill companies brings the total shipments of lumber from the Menominee river to November 1 up to not less than 500,000,000 feet. Judging from present appearances and the extensive fleets of lumber carriers that are arriving, the total shipments at the close of navigation will reach at least 600,000,000 feet.

SAGINAW, Mich., Nov. 25, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE shingle manufacturers and dealers of the Puget Sound district have, I understand, formed an organization, which they hope may be worth more to them than some previous efforts in a similar direction. All must put up a forfeit, dealers and manufacturers, and this factor in the combine is expected to keep possible refractory members in the traces. A canvas is to be made of the whole trade in Washington and Oregon so that there may be perfect unanimity in the step. Conditions of the agreement are to go in force at the first of the year when prices for 1894 will be adopted. Shingle men of British Columbia will watch with some interest the outcome of this combine. Prices here have been anything but satisfactory, but there has been nothing approaching the demoralization that has existed among the cedar shinglemen of Uncle Sam's domain. A strengthening of conditions there will no doubt be helpful to conditions here if they can be made to prevail.

COAST CHIPS.

A. Grant has started a wood planing establishment in Vancouver.

The R. C. P. Mill Co. and B. S. Mill Co. keep shipping to our Northwest.

The American schooner Salvador has sailed from Brunette mills for Adelaide.

Daniel McIntyre, lumberman, Duncans, has assigned to Philip Chapman Butts, also of Duncans, lumberman.

Legal action is likely to be taken against a local logging company for damage caused in Central Burnaby by the damming of the lake.

Local trade continues very quiet, but export is improving. The Hastings mill, Vancouver, has a number of charters completed, and will be kept busy most of the winter.

Capt. Libby, manager of the Puget Sound Tow Boat Association, is spending a short holiday with us after an absence of five years. He says lumber business on the Sound is very dull at present.

A new lumber company has just been formed and registered "The Burrard Inlet Red Cedar Lumber Co." The mill will be built on Burrard Inlet. J. N. Kendall, of saw mill fame, is the builder. It will most likely be a band mill.

The Buse saw mill, at Hastings, with all buildings and appurtenances, has been sold to a syndicate of Japanese. The purchase price was 45,000 yen. These Japanese have extensive timber limits on Howe Sound, and on their property there is considerable hardwood, including oak. This they intend to cut into dimensions suitable for shipping to Japan.

NEW WESTMINSTER, B.C., Nov. 20, 1893.

FIRES AND CASUALTIES.

FIRES.

—Robert Bram had his arm badly mangled in Young's saw-mill, Warton, Ont.

—The sawmill of Wm. Milne, at Ethel, Ont., was destroyed by fire on 18th ult.

—Murray Bros. of North Bay, Ont., had their sash factory and two million feet of lumber destroyed by fire.

—The shingle mill at Magog, Que., owned by Boright & Manson, of Mansonville, has been destroyed by fire.

—The steam sawmill of T. G. McMullen, at Ryan's Creek, N. S. has been burned to the ground. Loss about \$3,000.

CASUALTIES.

—A young man named Godburt, an employee of Gilmour & Hughson's mill, Hull, Que., has had a leg broken in two places.

—Solomon White, a saw filer in Gilmour & Co.'s mill, Trenton, Ont., was severely crushed between a lot of logs, and injured internally.

—A young man named John Lebeck, belonging to the township of Wilberforce, was killed at Davidson & Hay's mill, at Cache Bay, Ont.

—A young man named Boucher, employed in Booth's large mill, Ottawa, Ont., was severely bruised by a load of lumber falling on him.

—The sawmill at Norvar, Ont., which has been operated by the Dominion Bank for the past season was destroyed by fire a fortnight ago. Loss \$2,000.

—A painful accident happened at Bronson & Weston's mill at Ottawa, Ont., by which a young man named Duquette lost four fingers of the right hand.

—A man by the name of Sharkey, who worked in one of Gilmour's shanties, was killed a few days ago by the falling of a limb that struck him on the head.

—Cleophus Charon, who was at work in the Hawkesbury Lumber Co.'s shanties near Dieux Rivers, was drowned a fortnight ago while playing on some logs.

—John Firth, an employee in Davidson & Hay's mill, at Cache Bay, Ont., while working at a lathe machine was struck in the face by a splinter, it penetrating about two inches into the brain.

—A man named Leroux while working on one of the highest lumber piles in J. R. Booth's yard, Ottawa, Ont., slipped on a thin coating of ice, and fell, breaking one leg and sustaining severe internal injuries.

The hospital at Ottawa contains a number of sufferers who have been brought to the Capital from the various lumber camps. Among these are: J. Gagonon, from Wahnapiatae, who is suffering from an ugly cut from an axe having severed two toes, and a third partially, while chopping. F. Cote is here from Bronson & Weston's camp, four miles out, suffering from an injured back, having been struck by a falling tree.

THE NEWS.

CANADA.

—Moiles Bros., John's Island, Georgian Bay, cut 16,000,000 feet of lumber the past season.

—Mickle, Dyment & Son are erecting a new machine shop in connection with their mill at Severn Bridge, Ont.

—The revenue from Quebec crown lands has increased under the present administration from \$623,997 to \$999,722.

—Neil McLean and Alex. Gow, of Fergus, Ont., will operate a portable sawmill in Eramosa township this winter.

—John Doig, of Tuckersmith Township, Ont., has purchased a portable sawmill, and will operate it in the district.

—George Wilson, of Wilson's Corners, a village some fifteen miles up the Gatineau, is building a saw mill on the Blackburn Creek.

—The Schulu Lumber Co. have purchased the mill and lumber property of N. N. Bentley at Five Islands, near Parrsboro, N.S.

—Drake & Co., Selkirk, Man., have sold their saw mills, logs, etc., at Rice River, Lake Winnipeg, to Messrs. Robinson & Co.

—Work on the mills of Dunn Bros., at Grand Bay, and W. H. and J. Rourke, at St. Martin's, N.S., is being pushed ahead with vigor.

—McLeod & McCormack, of Peterborough, are sending a large number of men into the woods, paying from \$18 to \$22 a month with board.

—Arch McMullen, of Folly Lake, N.S., who got into financial trouble last mid-summer, has effected a settlement with his creditors.

—The Hawkesbury mills is becoming one of the big lumbering concerns of Eastern Ontario, the cut this season having run up to 50,000,000 feet.

—Wm. Goodwin, who had his hand cut off a few days since by falling on a circular saw at the lumber mills at Digby, N.S., is dead. He was seventy years of age.

—The sawing season in the Norman district is now over, the last mill to close down being that of the Western Lumber Company, formerly Cameron & Kennedy's at Norman, Ont.

—H. B. Mitchell, who proposes building a large saw mill at Selkirk, Man., next spring, reports everything in readiness to commence a heavy winter's work in the camps at Lake Winnipeg.

—J. Bower, formerly of Paisley, Ont., is now a partner with G. L. Keeling, of Cargill, the firm doing business at Warren under the name of Keeling & Bower, as manufacturers of lumber, lath and shingles.

—W. H. McAlpin, lumber merchant, Montreal, Que., bought in his stock recently at 63c. on the dollar. Ald. Savignac purchased book debts for 23½c. on the dollar. McAlpin will resume business.

—The number of vessels clearing from Quebec to Nov. 3 shows a decrease in sailing vessels of 118,903 tons, as compared with last year, while in the tonnage of ocean going steamships there was a slight increase.

—It is said that Capt. Robinson, who has several mills on Lake Winnipeg, will consolidate them and build one large mill at Selkirk on the Red river, to which the logs will be towed from points along the lake.

—M. M. Boyd, of Bobcaygeon, Ont., has purchased 9,980 acres of timber limits at Nitinat, from H. R. Morse. Mr. Boyd has also purchased the West Bay sawmill, from Drake, Jackson & Helmcken, executors of the Heathorn estate.

C. R. Peterkin, planing mill, Toronto, has a 14-in. leather belt made more than twenty years ago by F. E. Dixon & Co., and which is still in operation and used in driving his main shaft. Says a good deal for the Dixon belting.

—The statement is made that the Grand Trunk railway will shortly extend the Victoria Branch to the Ottawa, Arnprior & Parry Sound railway to reach the large areas of birch and maple forests, which have been comparatively little worked in that district.

—McArthur's saw mill, at Birtle, Man., has closed after one of the largest season's work ever done there, cutting about 75,000 ties and nearly two million feet of lumber. The outfit for the lumber camp have gone to the woods for the winter, where they expect a heavy season's cut.

—E. W. Dolloff, saw-mill, Magog, Que., is an absentee, and a meeting of creditors is to be held to appoint a curator to his estate. He was formerly at Fitch Bay, but last spring succeeded Taylor & Beech at Magog. He has not done well, having been sued in several instances within the last few months. Liabilities are not large.

—McConachie & Co. are rebuilding the shingle mill at the portage near Huntsville, Ont., on the ruin of the mill recently burned.

—J. Whiteside, of Huntsville, Ont., has shipped six horse-sleighs, and a lot of other lumber supplies to Duluth, Minn., where in connection with others he will take out about 15,000,000 feet of logs in what is known as the iron range district north of Duluth. His company is erecting a \$15,000 mill.

—A Midland dispatch says: "The large tow of logs belonging to Merrill & Ring that went afloat a few weeks ago has been gathered into small booms in sheltered spots, and will not be towed to Michigan this year because of the difficulty in securing storm booms. The gathering of the logs was made with difficulty and hardship."

—The Sable River Milling Company have erected a portable sawmill at Mitchell's Brook, between Port le Bear and Port Jollie, N.S., and have contracted with Mr. Thos. Nicoll, of Mahone Bay, to saw and place on the wharf at Port le Bear one million feet of lumber. The concern have a number of men at work in the woods.

—A Rat Portage correspondent of the Winnipeg Commercial says: "One by one the different saw mills in this vicinity are closing for the season. The Keewatin Lumber Co.'s mill has shut down, and the others will follow. The season's cut with them all has not been as great as former years, as there seems a slight depression in the lumber trade. The lumbering firms in Rat Portage and Norman, which are co-operative, will not send any men to the lumber camps this winter. This means that Rat Portage and the vicinity will harbor a large number of idle men this coming winter unless they find employment elsewhere."

—A despatch from Burk's Falls, Ont., says: "Messrs. McCormick and McLeod have taken from the Emery Holland Lumber Co. a contract to take out of the township of Burton and Ferrie this fall and winter, from thirty to thirty-five million feet of sawlogs. They have sublet contracts to jobbers who will operate seven camps in the township of Burton and ten in the township of Ferrie. The jobbers employ at present about 300 men and the contractors about 150 in two camps they are operating in township of Ferrie. In a short time jobbers and contractors expect to increase their force to 600 men. Messrs. McCormick & McLeod will make their headquarters at Ahmic Harbor."

—The failure of the Toronto Wood and Shingle Company is proving a rather mixed-up affair. The assets figure at about \$110,000, while the liabilities amount to \$150,000 or thereabouts. The Toronto Bank is the heaviest creditor, holding, it is alleged, the company's paper for between \$50,000 and \$100,000. Wm. J. Keiran, the company's manager, together with Mrs. Kieran and Edward E. Rush, executed a guarantee to the bank on the 30th of September, 1892, for this amount. Upon this guarantee the bank have filed a writ against the members. Another writ in this case is issued against W. M. Buchanan, of Thamesville, Ont., for \$3,000 damages and an injunction. Mr. Buchanan had just sold 875 cords of wood to the company on their promissory note. He supposed that he could now retain the wood, and the writ has been issued for possession of it. Henry Barber has been appointed liquidator of the company.

—The loss of the steamer Fraser, belonging to Davidson & Hay, lumbermen, on Lake Nipissing, Nov. 7, was one of the most calamitous accidents of the past shipping season. A total of sixteen men lost their lives by the accident. Mr. John Adams, of Toronto, one of the survivors, has given the following account of the accident. He said: "Some time after the departure of the boat from Callender heavy volumes of smoke were noticed coming up from between the smokestacks, and on the manhole above the boiler being opened to locate the trouble, the bursting flames drove all hands back from the opening. In an incredibly short time the boat was a mass of fire. A signal to reverse the engines was given but no response came, the engineer being probably already suffocated by the heat. Only one boat could be lowered, that on the port side, the heat already too intense to permit of the other being worked. The yawl was lowered, and several men got in her, but her bow striking the revolving paddlewheel they were all thrown into the water. Some, however, including Adams, managed to make the scow, and picked up all whom they could reach. It was soon after this that Captain Burritt came to the rescue of the exhausted men. Captain Carr and Mate Barbeau endeavored to hang by the anchor at the bow, but they could not hold on, and one by one they gave up the effort, and dropped off." The boat was engaged in taking timber supplies to the lumber camps of the firm, and the accident will cause them considerable trouble in completing the work before navigation closes. The loss is a heavy one to the owners, the insurance of \$6,000 not nearly covering the entire loss.

TRADE REVIEW.

Office of CANADA LUMBERMAN, 1 November 30, 1893. J

THE GENERAL SURVEY.

BUSINESS, as the year draws to an end, is always in something of a state of uncertainty. There is the natural anxiety in regards to the outcome of the yearly stock-taking and striking of the trade balance for the year. This anxiety is accentuated this year by the depressed conditions of the past summer, especially in the United States lumber markets where much Canadian stock goes.

Mills generally are closed down, and "to the woods" has been the order of the month. Logging operations will be less than last year and yet will not be circumscribed to any great degree. Logging in the United States will, relatively, be carried on with less vigor than in Canada.

Lumber values in Ottawa are improving. For thick lumber prices are \$2 to \$4 a thousand feet higher than last year's rates and fifty cents more than a month ago. Local trade throughout Ontario is quiet.

Late returns of the quantity of timber measured and culled by the Supervisors of Cullers' office at the port of Quebec show a falling off in almost every kind of timber. For instance, there was only 2,460,541 feet of waney white pine, as compared with 2,659,166 feet in 1892; 1,120,697 feet of white pine, as compared with 2,310,081 feet in 1892; 393,391 feet of red pine, against 392,196, feet in the previous year; 573,079 feet of elm, against 198,806 feet; 158,285 feet of ash, against 198,896 feet, and 140,909 feet of birch and maple, against 425,927 feet.

In New Brunswick trade is quiet with preparations for only a limited cut in the woods this winter. Of imports of New Brunswick and Nova Scotia spruce and pine deals to the United Kingdom, the current wood circular of Farnworth & Jardine, of Liverpool, Eng., says: "The import has been in excess of the same time in the previous two years, viz., 7,809 standards, against 4,891 standards in October, 1862, and 6,199 standards in 1891, the bulk of the recent arrivals have gone direct from the quay into consumption, prices, however, show little improvement, and the present stock is quite sufficient for the probable demand during the next few months. Pine deals are dull of sale." British Columbia trade is fair.

UNITED STATES.

Rather more buoyancy has existed in lumber during the month than for some months previously. To some extent this has been a result of the nearness of the closing of navigation, making shippers anxious to get out supplies as speedily as possible. There have been large shipments from Michigan and Wisconsin ports to Buffalo and Tonawanda. It is not thought that stock to be carried over the winter will be unnecessarily heavy, perhaps not more than will be required to meet a fairly active winter and spring demand. The new tariff bill, placing lumber on the free list, is causing some anxiety; of this we have something to say elsewhere.

FOREIGN.

There is good reason to believe that trade in South America is improving, and lumbermen are likely to feel the effects at an early day. Australian conditions are mending, though slowly. English correspondents continue to write despondingly. Denny, Mott & Dickson,

of London, Eng., say: "Business during the past month has presented little feature for comment. The delay of any real revival in trade is producing a monotonous apathy, which leaves little room for speculation, excepting, indeed, as to how long the strain can be borne by those whose resources are not sufficiently strong to make them independent of profits—at least, until the "survival of the fittest" once again gives the painstaking trader a reasonable return for his time and capital." Of Canadian timber the same firm say: "The demand for oak and elm has been of the scantiest description, square yellow pine is also difficult to move but there has been sufficient enquiry for first-class Waney to justify moderate consignments to this market, whilst still practicable, as none of this timber remains in first hands." Farnworth & Jardine, Liverpool, Eng., report in their wood circular of Canadian woods: "Yellow pine timber: Waney pine has moved off freely, and prices are maintained. Square is in dull demand and prices are easier; the stock of both is sufficient. Red pine has come forward too freely, the demand is very slow, and the stock is too heavy. Oak has been imported more moderately; the deliveries have been large, and consist chiefly of 1st class wood from Quebec; several large railway companies having taken their supplies during the present month; prices are firm. The stock of this class of wood is moderate. Ash has been imported in excess of the demand, which is only moderate: there is no change in value, and the present stock is now much too heavy. Pine deals have been imported freely; the deliveries, however, have been fair, and prices are unchanged; the stock, although less than the same time last year, is quite ample."

TORONTO, ONT.

TORONTO, November 30, 1893.

CAR OR CARGO LOTS.

Table listing various lumber items and their prices in Toronto, Ontario, including items like 1x4 in. cut up and better, 1x10 and 12 dressing and better, etc.

YARD QUOTATIONS.

Table listing yard quotations for various lumber items, including Mill cull boards and scantling, Shipping cull boards, Scantling and joist, etc.

HARDWOODS—PER M. FEET CAR LOTS.

Table listing prices for various hardwoods per M. feet car lots, including Ash, white, black, Birch, sq., red, yellow, Basswood, Butternut, Chestnut, Cherry, Elm, soft, rock, Hickory, Maple, Oak, red, p'n, white, quart'd, Walnut, Whitewood.

OTTAWA, ONT.

OTTAWA, November 30, 1893.

Table listing prices for various lumber items in Ottawa, Ontario, including Pine, good sidings, Pine, good strips, Pine, good shorts, etc.

QUEBEC, QUE.

QUEBEC, November 30, 1893.

WHITE PINE—IN THE RAFT.

Table listing prices for white pine in the raft, including items like For inferior and ordinary according to average, quality etc., For fair average quality, etc.

RED PINE—IN THE RAFT.

Table listing prices for red pine in the raft, including items like Measured off, according to average and quality, In shipping order, 35 to 45 feet.

OAK—MICHIGAN AND OHIO.

Table listing prices for oak from Michigan and Ohio, including items like By the dram, according to average and quality.

FLM.

Table listing prices for FLM, including items like By the dram, according to average and quality, 45 to 50 feet, 30 to 35 feet.

ASH.

Table listing prices for ash, including items like 14 inches and up, according to average and quality.

BIRCH.

Table listing prices for birch, including items like 16 inch average, according to average and quality.

TAMARAC.

Table listing prices for tamarac, including items like Square, according to size and quality, Flatted.

STAVES.

Table listing prices for staves, including items like Merchantable Pipe, according to qual. and sp'c't'n—nominal, W. O. Puncture, Merchantable, according to quality.

DEALS.

Table listing prices for deals, including items like Bright, according to mill specification, \$115 to \$123 for 1st, \$78 to \$82 for 2nd, and \$37 to \$42 for 3rd quality.

BOSTON, MASS.

BOSTON, Mass., Nov. 30.—Not very much reason exists for complaint of the month's trade. The demand for hardwoods has been quite large.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing prices for eastern pine cargo or car load, including items like Ordinary planed boards, Coarse No. 5, Refuse, Outs, Boxboards, 1 inch, 1/2 inch.

WESTERN PINE—BY CAR LOAD.

Table listing prices for western pine by car load, including items like Uppers, 1 in., 1 1/2 and 2 in., 3 and 4 in., Selects, 1 in., 1 1/2 and 2 in., 3 and 4 in., Moulding boards, 7 to 11 in. clear, 60 per cent. clear, Fine common, 1 in., 1 1/2 and 2 in.

SPRUCE—BY CARGO.

Table listing prices for spruce by cargo, including items like Scantling and plank, random cargoes, Yard orders, ordinary, sizes, Yard orders, extra, sizes, Clear floor boards, No. 2.

LATH.

Table listing prices for lath, including items like Spruce by cargo.

SHINGLES.

Table listing prices for shingles, including items like Eastern sawed cedar, extra, clear, 2nd's, extra No. 1, Eastern shaved sawed cedar, 1st quality, 2nd quality, 3rd, 4th, Spruce No. 1.

OSWEGO, N.Y.

OSWEGO, N.Y., Nov. 30.—A fair month's trade has been done, helped, no doubt, by the early closing of navigation.

WHITE PINE.

Table listing prices for white pine, including items like Three uppers, 1 1/2, 1 1/2 and 2 inch, Pickings, No. 1, cutting up, No. 2, cutting up, In strips, 4 to 8 wide, selected for moulding strips, 14 to 16 ft.

SIDING.

Table listing prices for siding, including items like 1 in siding, cutting up picks and uppers, 1 in in dressing, 1 in No. 1 culls, 1 in No. 2 culls, 1 in No. 3 culls.

1X12 INCH.

Table listing prices for 1x12 inch lumber, including items like 12 and 16 feet, mill run, 12 and 16 feet, No. 1 and 2, barn boards, 12 and 16 feet, dressing and better, 12 and 16 feet, No. 2 culls.

1X10 INCH.

Table listing prices for 1x10 inch lumber, including items like 12 and 13 feet, mill run, mill culls out, 12 and 13 feet, dressing and better, 1x10, 14 to 16 barn boards, 12 and 13 feet, No. 1 culls, 12 and 13 feet, No. 2 culls, 14 to 16 feet, mill run mill culls out, 14 to 16 feet, dressing and better, 14 to 16 feet, No. 1 culls, 14 to 16 feet, No. 2 culls, 10 to 13 feet, No. 3 culls.

1 1/2 X 10 INCHES.

Table listing prices for 1 1/2 x 10 inches lumber, including items like Mill run, mill culls out, Dressing and better.

1X4 INCHES.

Table listing prices for 1x4 inches lumber, including items like Mill run, mill culls out, Dressing and better.

1X5 INCHES.

Table listing prices for 1x5 inches lumber, including items like 6, 7 or 8, mill run, mill culls out, 6, 7 or 8, drsg and better.

XXX, 18 in pine.....	3 70	XXX, 18 in. cedar... 3 50	3 71
Clear butts, pine, 18 in.	2 70	Clear butt, 18 in. cedar. 2 50	2 71
XXX, 16 in. pine.....	3 30	XX, 18 in. cedar	1 90 2 00
Stock cedars, 5 or 6 in.	4 50	5 00	

LATH.

No. 1, 1 1/4.....	2 30	No. 2, 1 1/4.....	2 25
No. 1, 1 in.	1 80		

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Nov. 30.—Not a little encouragement is to be found in lumber at this point. A good business has been done throughout the month, and the feeling exists that a fair winter's trade may be expected.

UPPER PINE.	
Upr's, 1, 1 1/4, 1 1/2 and 2 in.....	\$47 00 50 00
2 1/2 and 3 in.....	56 00 58 00
4 in.....	60 00 62 00
Selects, 1 in.....	38 00 40 00
1 1/2 to 2 in.....	40 00 42 00
2 1/2 and 3 in.....	51 00 53 00
4 in.....	54 00 56 00
Fine common, 1 in.....	35 00 38 00
1 1/2 and 1 3/4 in.....	37 00 38 00
2 in.....	39 00 40 00
3 in.....	47 00 48 00
4 in.....	47 00 48 00
Cut'g up, No. 1, 1 in.	28 00 30 00
1 1/2 to 2 in.....	35 00 36 00
No. 2, 1 in.....	19 00 20 00
No. 2, 1 1/2 to 2 in.....	25 00 27 00
No. 3, 1 1/4 to 2 in.....	18 00 19 00

BOX.	
1x10 and 12 in. (No 3 out).....	14 00
1x6 and 8 in. (No. 3 out).....	13 50
1x13 and wider.....	16 00
	18 00

SHINGLES.	
18 in. XXX, clear.....	3 75
18 in. XX, 6 in. clear.....	2 75
LATH.	
No. 1, 4 ft.	2 50
No. 2, 4 ft.	1 95

ALBANY, N.Y.

ALBANY, N.Y., Nov. 30.—It has been all hustle and bustle here, as the date of closing of navigation has drawn near. Aside from this circumstance there is no remarkable revival of trade.

PINE.	
2 1/2 in. and up, good.....	\$56 60
Fourth.....	58
Selects.....	50
Pickings.....	45
1 1/2 to 2 in. good.....	52 55
Fourth.....	47 50
Selects.....	42 45
Pickings.....	37 40
1-in. good.....	52 55
Fourth.....	47 50
Selects.....	42 45
Pickings.....	37 40
Cutting-up.....	22 27
Bracket plank.....	30 35
Shelving boards, 12-in. up.....	30 32
Dressing boards, narrow.....	19 21

LATH.	
Pine.....	\$2 40
Spruce.....	\$2 30
Shingles.....	\$2 40

Sawed Pine, ex. XXXX.....	\$4 54
Clear butts.....	3 15
Smooth, 6x18.....	5 50

SAGINAW, MICH.

SAGINAW, Mich., Nov. 30th.—Lumber is decidedly slow, and will likely continue so over the end of the year. The proposition to place lumber on the free list is not over welcome news in this quarter.

FINISHING LUMBER—ROUGH.	
Uppers, 1, 1 1/4 and 1 1/2.....	45 00
2 in.....	46 00
Selects, 1 in.....	40 00
1 1/2 and 1 3/4.....	41 00
2 in.....	41 00

SIDING.	
Clear, 1/2 in.....	24 00
3/4 in.....	24 00
Select, 1/2 in.....	21 00
3/4 in.....	21 00

TIMBER, JOIST AND SCANTLING.	
2x4 to 10x10, 12, 14 and 16 ft.....	\$11 00
18 ft.....	13 00
For each additional 2 ft. add \$1; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.	

SHINGLES.	
XXX 18 in. Climax.....	3 65
XXX Saginaw.....	3 49
XX Climax.....	2 25
18 in. 4 in. c. b.....	1 25

LATH.	
Lath, No 1, white pine.....	2 25
Lath, No. 2, W. pine, Norway.....	1 65

NEW YORK CITY.

NEW YORK, Nov. 30.—The lumber market is quiet, with indications telling of the near approach of the end of the year. A statement is made here by an agent of large Canadian mills that he has already reached a point of negotiation for next year's cut that practically engages the output, with price, however, contingent upon tariff revision.

WHITE PINE—WESTERN GRADES.	
Uppers, 1 in.....	\$44 00@45 00
1 1/4, 1 1/2 and 2 in.....	46 00 47 00
3 and 4 in.....	55 00 58 00
Selects, 1 in.....	40 00 41 00
1 in., all wide.....	41 00 43 00
1 1/4, 1 1/2 and 2 in.....	43 00 44 00
3 and 4 in.....	52 00 53 00
Fine common, 1 in.....	36 00 37 00
1 1/4, 1 1/2 and 2 in.....	38 00 40 00
3 and 4 in.....	46 00 48 00
Cutting up, 1 in. No. 1.....	28 00 30 00
No. 2.....	21 00 23 00
Thick, No. 1.....	29 00 32 00
No. 2.....	24 00 26 00
Common, No. 1, 10 and 12 in.....	22 00 23 00
No. 2.....	20 00 21 00
No. 3.....	17 00 18 00

Coffin boards.....

Coffin boards.....	20 00 22 00
Box, in.....	\$17 00@17 50
Thicker.....	17 50 18 50
Ceil'g, base, fig. No. 1.....	40 00 42 00
No. 2.....	35 00 37 00
No. 3.....	40 00 42 00
Shelving, No. 1.....	30 00 32 00
No. 2.....	25 00 27 00
Molding, No. 1.....	36 00 37 00
No. 2.....	34 00 36 00
Bevel sid'g, clear.....	22 50 23 00
No. 1.....	22 00 22 50
No. 2.....	20 00 20 50
No. 3.....	16 00 17 00
Norway, c'l, and No. 1.....	23 00 25 00
No. 2.....	20 00 22 00
Common.....	18 00 19 00

A PLEA FOR WOODEN SHINGLES.

THE evolutions and changes of time have given creation to other shingles besides those made of the products of the forest. Whether these new inventions are an improvement on the old original is seriously doubted by a writer in the Tradesman, who enters the following logical plea for wooden shingles. He says: "The most important part of any house or building, whether erected for the transaction of business or the enjoyment of pleasure—for the abode of humans or beasts—is the roof. Whole nations of people have lived in houses without any side protection. The historian, Gibbon, states, flatly and unqualifiedly, that the marked contrast between the vigor of the men and virtue of the women of the Germanic tribes of northern Europe and the people of the cities of the Roman Empire, in its declining days, resulted from the fact that the dwellings of the former had no side protection, but were left open. The hardy pioneers of this country reared large and vigorous families on "dirt floors." Among the poorer classes of European and Asiatic people and in Mexico and South America the floors of the dwellings are the native earth. But in all climates, among all peoples in ages from the time of the cave bear to the present, a roof was considered the grand essential of a dwelling place. Every imaginable article, from plant leaves and branches, skins of animals, textile fabrics and so on, down or up, to minerals and metal, have been used for roofing purposes. In this civilized land there are several substances in use for the purpose and in the projection of any new building the main question is: What shall the roof be made of? It is hard to convince a shingle manufacturer, whether he be a cypress, poplar, cedar, white pine or a redwood man, that there is anything cheaper, better and more satisfactory in all respects, except in regard to fire risks in towns and cities, than a wooden shingle. Slate is heavy, requires extra strength, and consequent cost, of wall and roof timbers and altogether too costly for any but the better class of buildings. Iron roofing has the same objections and in addition requires repeated coats of paint. The roofs, as they are made now, are a fraud. The sheets of which they are made are rolled so thin that light can be seen through the common grades of them and the cost of alleged tin with which they are covered, by dipping the plate into an alloy of tin, lead and antimony, and afterwards squeezed off by running the plates through five successive sets of pressure rollers, is about a hundred times thinner than the plates. If not painted as soon as put on the roof will leak from the start, and the coat of paint will have to be renewed at intervals of one to three years. When a tinner is employed to repair a tin roof he has a picnic. There is no regular price on that kind of work and it is a pretty fair tinner's cub who does not make two leaks for every one he stops. The so-called tin shingles are an abomination. They are corrugated and grooved, according to a pattern some one has devised and had patented, by pressure between dies and the texture of the plate and tin coating so strained and broken that they must be painted as they come from the machine or they will rust before they can be nailed on the roof.

For the great majority of buildings, where the fire risk is not too great, a wood shingle roof is the cheapest and the best. The alternate expansion and contraction of a continuous metal roof will, in time, wear loose the cleats, or the nails that hold them, and if the roof blows off in a storm, the whole concern goes at once. A wood shingle roof, properly put on, will not blow off unless the sheathing and rafters go too.

Instances are occurring every few weeks where old houses are being torn down or repaired, showing that wood shingle roofs have lasted longer and given better service than metal roofs. But these old roofs, put on fifty or more years ago, do not furnish a fair criterion by which to judge the durability of the wooden shingles now on the market. There were no shingle machines in this country fifty years ago. All shingles were riven and drawn by hand. None but the best, straight and sound timber was used. The butt ends, or that part which was exposed to the weather, were drawn with parallel thickness and consequently, straight with the grain of the wood. Hence, none, or very few, of the sap ducts were exposed. The taper of the hand drawn shingle was made from the part to be exposed to the weather to the top. Machine made shingles, whether cut or sawn, taper all the way from the butts to the top, and the butts and tops are made alternately from both ends of the bolt. This cuts across the ducts and opens every pore where the sap once flowed for the entrance of rain water. When the hardened, or dried up, sap remaining in these sap ducts is dissolved the rain water a fermentation of more or less energy is set up and tends to speedily break down the cellular structure of the wood and produce decay. The sap of all woods contains albumen; nearly all contain saccharine matter combined with acids, all of are active elements of fermentation. These are some of the reasons why a sawn shingle will not last as long as a shaved one. Cut shingles are hardly worth nailing on a roof, as the grain of the wood is broken, or loosened, in making. It is simply a thick shaving.

There is one thing that can be said about sawn shingles that has never been said, and it is very important. They will hold paint better than shaved shingles and infinitely better and longer than metal. If made thin enough, or applied hot, the paint will enter and fill the sap duct and prevent the entrance of moisture or fermentation. If a roof of sawn shingles is kept painted as well as tin or a sheet iron roof requires, it will last longer and give better service than either. It is a mistake to suppose that metal, or even slate, roof is fire-proof. A wood shingle roof can be made proof against falling sparks by using the proper paint. No metal roof is proof against heat that will ignite wood coated with fire-proof paint.

PUBLICATIONS.

The Trade Review, of Montreal, a welcome exchange in our sanctum, appears in a new typographical dress and improved and modernized in form.

Edward Bellamy has written the story of "How I Came to Write 'Looking Backward'" for The Ladies' Home Journal. He will tell, in connection with the history of the book itself, how the idea of Nationalism first suggested itself to his mind.

TRADE NOTES.

Robin & Sadler, of Montreal and Toronto, the well-known manufacturers of leather belting, are in receipt of a handsome diploma from the Eastern Townships Agricultural Association, awarding them a silver medal, for display of leather belting at the Sherbrooke exhibition in September last.

In another part of this issue Mr. R. Dillon, Oshawa, Ont., advertises the "Whiting" Saw Set for cross-cuts only. Some of the special features of this tool are, it sets the points only, and being constructed on the Swage principle, will set hard teeth. There are no springs, can be carried in the vest pocket, and are fully warranted.

PERSONAL.

Hiram A. Emery, the millionaire lumberman of Bay City, Mich., died at Mobile, Ala., a fortnight ago.

Miss Ada Rixon, third daughter of Mr. Henry Rixon, of the well-known firm of Maitland, Rixon & Co., lumbermen, Owen Sound, Ont., died a week ago of peritonitis. Great sympathy is expressed for the family, as only last summer the only son was drowned from the steamer Alberta in Lake Superior under very distressing circumstances.

Mr. Edward Newell, for many years manager of Dick, Banning & Co., at Keewatin, has removed to Norman, Ont., as more central for his duties in connection with the Ontario and Western Lumber Co. Before his departure the citizens presented Mr. and Mrs. Newell with a silver tea service and address. Mr. Newell has been a prominent citizen, having been a member of the council, the school board, and many secret societies. At present time he is reeve of Keewatin.

EFFECTS OF TREES ON CLIMATE.

By Prof. B. E. FERNOW.

AS to humidity of air, we find that the annual evaporation within the forests is about one-half of that in the open field; not only is the evaporation within a forest greatest in May and June, but the difference between this and the evaporation in the open field is also then a maximum, which is the saving due to the presence of the woods. The average annual evaporation within the woods is about forty-four per cent. of that in the field. Fully half of the field evaporation is saved by the presence of the forest.

The quantity of moisture thrown into the air by transpiration from the leaves in the forest is sometimes three times that from a horizontal water surface of the same extent, and at other times it is less than that of the water. The transpiration from leaves in full sunshine is decidedly greater than from leaves in the diffused daylight or darkness. The absolute amount of annual transpiration observed in forests of mature oaks and beeches in central Europe is about one-quarter of the total annual precipitation.

The percentage of rainfall evaporated at the surface of the ground is about forty per cent. for the whole year in the open field, and about 12 per cent. for the forest, and is greater under deciduous than under evergreen forests. The evaporation from a saturated bare soil in the forest is about the same as that from a water surface in the forest, other conditions being the same. The presence of forest litter like that lying naturally in undisturbed forests hinders the evaporation from the soil to a remarkable extent, since it saves seven-eighths of what would otherwise be lost.

The total quantity of moisture returned into the atmosphere from a forest by transpiration and evaporation from the trees and soil is about seventy-five per cent. of the precipitation. For other forms of vegetation it is about the same, or sometimes larger, varying between seventy per cent. and ninety per cent. In this respect the forest is surpassed by the cereals and grasses, while on the other hand, the evaporation from a bare soil is scarcely thirty per cent. of the precipitation.

The absolute humidity within a forest exceeds that of the glades and the plains by a small quantity. The relative humidity in the forest is also larger in the forest than in the glades or plains by two per cent. to four per cent. Forests of evergreens have from two to four times the influence in increasing relative humidity than do forests of deciduous trees. The gauges in European forest stations catch from seventy-five to eighty-five per

cent. when placed under the trees, the balance representing that which passes through the foliage and drips to the ground or runs down along the trunks of the trees, or else is intercepted and evaporated. The percentage withheld by the trees, and which either evaporates from their surface or trickles along the trunk to the ground, is somewhat greater in the leafy season, though the difference is not great.

Deciduous and evergreen trees show but slight difference in this respect. More rain is usually caught by gauges at a given height above the forest crown than at the same height in open fields, but it still remains doubtful whether the rainfall itself is really larger over the forests, since the recorded catch of the rain gauge still requires a correction for the influence of the force of the wind at the gauge. In such cases, where over a large area deforestation and reforestation have seemingly gone hand in hand with decrease and increase of rainfall, the possible secular change in rainfall must also be considered.

TRANSMISSION OF POWER.

THE London Electrical Engineering, September 15, repeats the first part of the first Howard lecture delivered before the Society of Arts, by Prof Unwin, on the development and transmission of power from central stations. In discussing the sources of mechanical energy, he states in connection with the subject of solid fuel, that one-fifth to one-fourth of the heat escapes in the chimney; that at most three-eighths to four-fifths of the heat supplied to a steam engine can be transformed, and that three-tenths of the whole heat of the fuel which it is possible to transform by the steam engine, is further reduced by imperfections and losses in the engine itself; in connection with gaseous fuel he mentions the advantages of gas engines, including the fact that they have a higher efficiency than steam engines; gas for heating and power purposes, he states, will probably be distributed and sold at less than half the price of the present gas; regarding town refuse, as a fuel, he states that Mr. Watson calculates that in furnaces at Leeds, 4,800 pounds of water can be evaporated by the heat produced by a ton of refuse, but he discredits these figures; from the experiments at Oldham it appears that forty pounds of refuse will yield an effective horse power hour. The second portion of his lecture is published in the issue of September 22. This portion is devoted to the generation of power by steam and the conditions of economy and waste. Some interesting tables of results, diagrams and curves are given.

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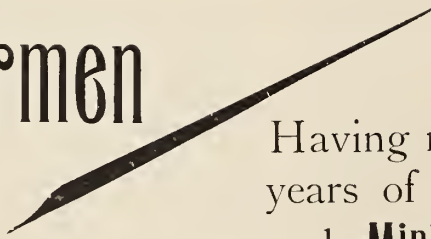
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NOTES ON WOOD-WORKING.

WRINKLES are good, of course, but look out for some of them, all the same. Don't swallow a thing, simply because it appears in print, which you would not swallow if told to you by some one else. To illustrate the value of some of the "wrinkles" printed for the benefit of the public, I present the following, from a journal devoted to general industry: "Do you know that you can drive nails into hardwood without bending them, if you dip them first in lard?" It would be perfectly legitimate to answer that question by asking one or more others. For instance: Do you believe the holding power of a greased nail is as great as that of one not greased? Do you know what effect the acids in the lard will have on the nail? Is the aim of driving a nail to do it easily, or do it well and properly? Would you be willing to have fine hardwood wares driven full of greased nails? Do you know that, if you can not drive nails into wood without bending them, either the nails are too soft, or the wood is too hard, or you don't know enough to drive a nail, or else you would better try some other method of driving? Just think over this greased-nail-hardwood-driving "wrinkle" a bit before trying it on valuable wares.

When you buy light hangers, knowing them to be lighter than those you have ever before used in similar work, do not be surprised, when, having them in position and the machinery started, they "drop down dead" under the too-great strain. Have them heavy enough to make sure that they are strong enough. Rigidity is greatly to be desired in wood-working machines, of course, but rigidity is not always implied in a great weight of frame. I know some exceedingly "heavy" machines that are anything but rigid. The designer of machines has a problem always before him. It is necessary for him to use material enough to make rigidity an assured feature of a machine, and if he be a thoroughly scientific as well as practical man, he will know where and how to distribute metal so as to answer to the strains and jars most perfectly. I know one planer, in very general use, that on first acquaintance seems entirely too light in frame for the work it is built to do. Notwithstanding its appearance of extra lightness, it is an exceedingly rigid machine, one of the most rigid I have ever seen.

FUTURE OF WOOD PULP

THE Manufacturers' Gazette thinks if all that is expected of wood pulp is accomplished, it is apt to become much more of a king than ever was cotton. Late patents cover inventions for machines which are intended to spin and weave the fibre as if it were cotton or wool, of which, for the making of wearing apparel, it is said to be the equal in every respect. When our shirts and our pantaloons, our hats and shoes, our bath tubs and coffins are all made, as it is possible they may be, of pulp, the product will certainly have come nearer than ever did anything else of enjoying a monopoly of supplying all the ordinary wants of man.

CANADA LUMBERMAN, \$1 per year.

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Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

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LUMBER AND SHINGLE MILL FOR sale in the Village of Dundalk; this is good new 50-horse power mill; will run lumber and shingles at same time; plenty of stock can be bought in the locality for four or five years at a reasonable rate. Apply to JOHN IRWIN, Brampton, Ont.

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CHESTNUT, STRICTLY FIRST AND seconds; also inch elm, maple, inch hemlock. Tie sidings, etc., etc. J. G. BOUCHER, Port Rowan, Ont.

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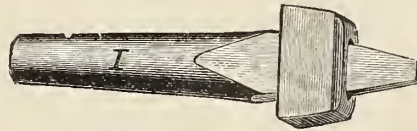
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Representative Lumber Manufacturers and Dealers

TOWN	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail	
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	
Muskoka Mills, Ont.	Midland	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars.
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar Oak, Oak Railway Ties, Paving Blocks	
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mls., Pine, Hem., Bl. Birch	Steam, Circular, 16m
Bobcaygeon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail	2 Saw, Sh., 200m; Pt. Severn mill, water, 120m
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Wholesale and Retail	
Waubauslene, Ont.	Waubauslene	Georgian Bay Consol. Lumber Co. H.d. office arcade 24 King st. w., Toronto	Pine only.	Waubauslene mill, stm., 200m; Pt. Severn mill, water, 120m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Lumber, Wholesale and Retail	
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles.	Steam, 2 Circular, 80m
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Glammis, Ont.	Pinkerton	McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwds., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Heath, Tait and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
Keewatin, Ont.	Keewatin	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail	
Little Current, Ont.	Sudbury	Howry, J. W. & Sons	Lumber, Wholesale and Retail	
London, Ont.	London	Gordon, James	Exp. and dlr. in Am. Hwds, made to specification	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Band and Circular, 100m
Norman, Ont.	Norman	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail	
Louise, Ont.	Elmwood, G.T.R.	S. B. Wilson & Son	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 20m.
Toronto, Ont.	Warren, C.P.R.	The Imperial Lumber Co., Limited	Pine.	80 M. per day, Stm., 2 Cir. Saws
Toronto, Ont.	Cache Bay, Ont.	Davidson, Hay & Co.	W. Pine, Lath, Shingles, Dim. Timber, Car Sills	Stm., 2 Band, Cir. & Gang, 140m
Toronto, Ont., Mill; Stony Lake	Lakefield	S. J. Wilson & Co.	Pine and Hardwood, Wholesale	Steam, Circular, 15m.
Toronto, Ont.	Toronto	F. N. Tennant	Lumber, Wholesale	
Toronto, Ont.	Toronto	Donogh & Oliver	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 140m
Toronto, Ont.	Toronto	W. N. McEachren & Co.	Lumber, Wholesale	Com.
Toronto, Ont.	Toronto	James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Com.
Warton, Ont.	Warton	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Stm., Wr., Cir., Port. & Sta., 10m
Buckingham, Que.	Buckinghamham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Toronto	Toronto	DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail	
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hdws., Whol.	Steam, Circular and Band, 50m
Montreal, Que.	Montreal	SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moodyville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 38m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwds.	Water, Circular and Gang, 200m

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THE best non-conductor is the cheapest covering. Mineral Wool heads the list as a fire-proof non-conductor. Hard pressed coverings are poor non-conductors, and are therefore the most expensive in the end.

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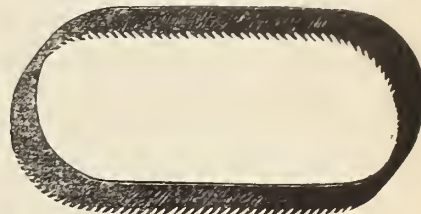
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Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

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CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS
 AND SASH AND DOOR FACTORIES
 OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF

THE LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING
 MILLS AND SASH AND DOOR
 FACTORIES OF CANADA:

1893

Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Address all communications to

DIRECTORY DEPARTMENT,
 CANADA LUMBERMAN,
 TORONTO, ONT.

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MESSRS. DOMINION DRY KILN CO.,
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GENTLEMEN,

We have thoroughly tested the "Andrews" Lumber Dry Kiln furnished by you and must say that it more than surpasses our expectations. We put green spruce lumber in from the saw dripping with water and in 18 hours it was drier than lumber that had been stuck up in the yard all summer, and in four days it was as dry as a bone, and without nearly as many checks or warps as the same grade air dried.

A very important feature of the "Andrews" Kiln is that it saves so much steam over that of any other system.

You may refer any one you like to us, or send them down to inspect, and we can satisfy them that your kiln cannot be beat.

Yours truly,
EASTMAN LUMBER CO.

WHAT?

WHY

CHATHAM, ONT.,
August 25th, 1893.

A. G. MORTIMER, ESQ.,
Manager Dominion Dry Kiln Co.,
Toronto, Ont.

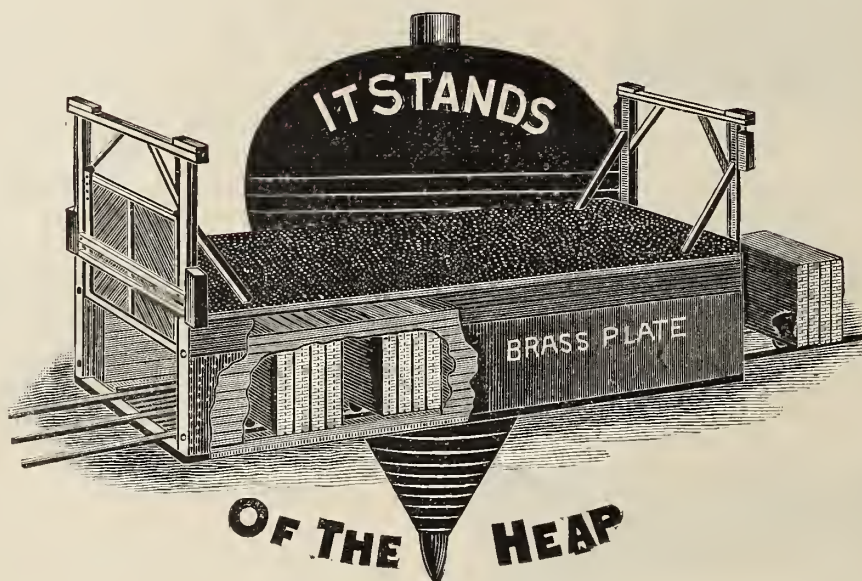
DEAR SIR,

The "Andrews" dry kiln, which I purchased from you has now been in operation over a month, and is so perfectly satisfactory that I cannot say enough in its favor.

I use very little steam and my staves come out as dry as a bone, and are not in any way injured by warping or discoloration.

Yours truly,
(Signed) N. H. STEVENS

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Nearly 500 Kilns
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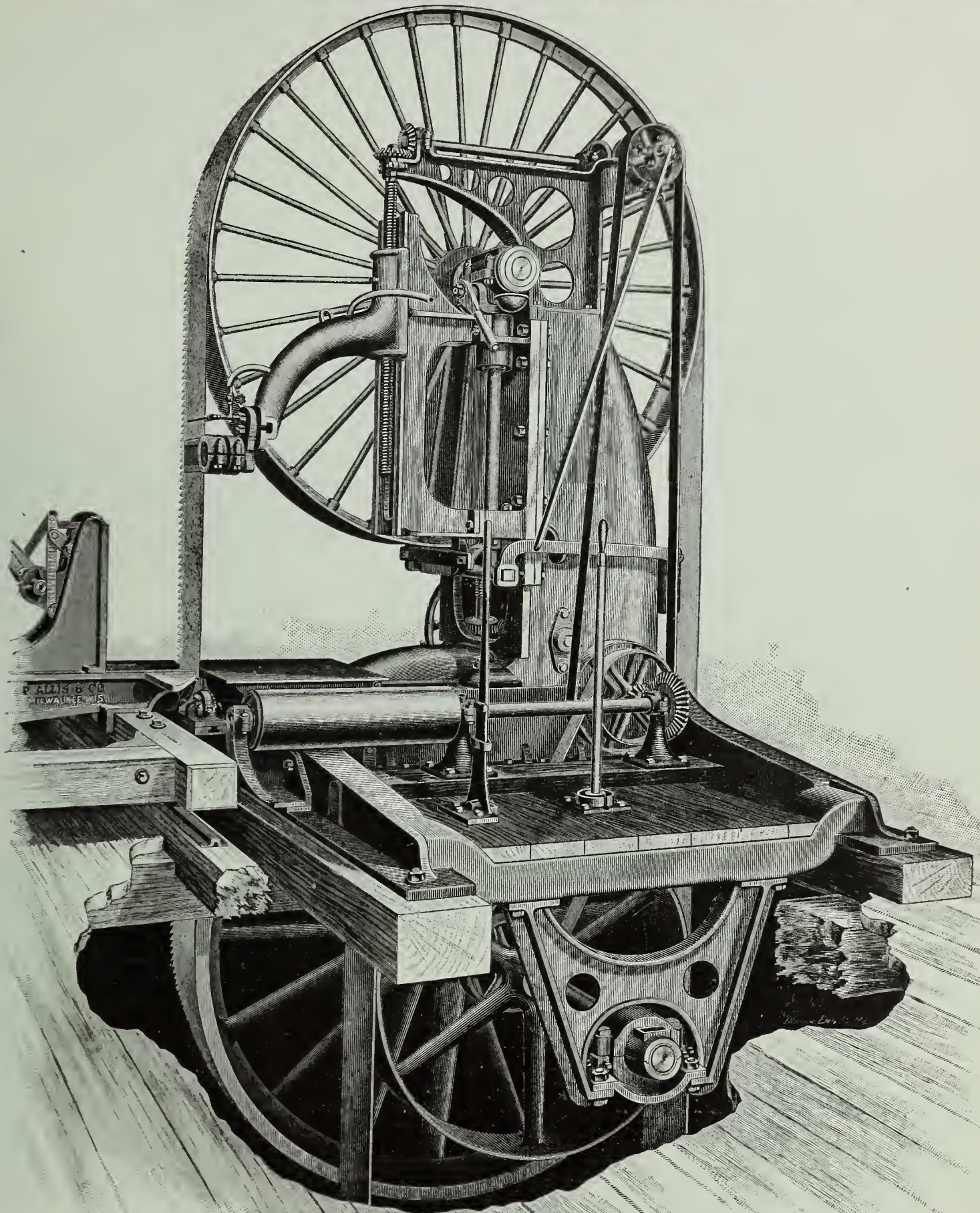
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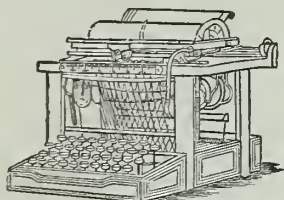
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