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# THE CANADA LUMBERMAN

VOLUME XV.  
NUMBER 1.

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## MORE TARIFF OPINIONS.

THE probability of free lumber, as outlined in the Wilson bill, now before Congress, continues the uppermost question of discussion among lumbermen, both in Canada and the United States. As will be noted from the views we here append opinions differ very widely as to the wisdom and outcome of the measure.

### Voices of Canada's Finance Minister.

Finance Minister Foster interviewed in regard to the alleged combination that has been formed in the United States to lobby against free lumber, said that the Government were giving every attention to the matter and were carefully studying the question of re-imposing an export duty on logs as promised last session, should fair treatment not be accorded Canadian lumber exported to the United States.

### Saginaw Valley Lumbermen Speak.

The proposed removal of the tariff on lumber, says a Bay City, Mich., dispatch, in the Wilson bill has but little terror for Saginaw valley lumbermen. There are few of them who are not interested in Canadian pine, and the business had reached the point where Canadian interests must receive some concessions from the United States or the saw mills of the valley would quit business. Since the export duty on logs was taken off by the Canadian Government, the valley mills have practically lived on Canadian pine. During the past year upwards of 300,000,000 feet of logs have been brought across Lake Huron and converted into lumber by the mills of the Saginaw river, and the shore towns. Canadian logs have furnished labor for the employes of fully fifteen large saw mills. Unless there is an export duty placed on logs this winter the amount brought over next summer will undoubtedly exceed that of the past year. Nearly all of the lumbermen have arranged for cutting as much, or more, during the winter. The business of rafting logs across the lake employs hundreds of men, who sort the logs and man the tugs which do the towing. One firm in Bay City, the Saginaw Bay Towing Association, has ten powerful tugs for the work. About half the output comes from Spanish river, and the remainder from French river and Little Current.

### A Tonawanda Wholesaler's Opinion.

The lumber business, says a Tonawanda correspondent of the Timberman, is very dull in this market at present and we cannot view the future outlook as offering much encouragement for lumbermen. Not only are we suffering in consequence of general depression of business and many idle workmen, but an additional menace by the threatened reduction of duty on Canadian lumber by the Wilson bill, thereby opening another floodgate for cheap box lumber and coarse stock. Every lumberman knows that we get very little good lumber from Canada, and also that box lumber is always to be obtained at consuming points at about actual cost of production and transportation, and Canadian box only makes it harder to realize on an investment including the log run, and consequently adds to the price of better grades of lumber. It is the better grades of lumber which enters largely into use in house building, such as siding, doors, sash, mouldings and finishing grades. So the result of the Wilson bill will be to lessen the price of coarse lumber, largely used by box makers and manufacturers, and increase that portion of the stock needed by the laboring man who is striving to build a home. With this view of the situation I do not think the prospects are very jubilant of lumber trade or in fact any other industry that is affected by the bill now before Congress.

### From St. John, N.B.

A despatch from St. John, N.B., says:—Hon. J. P. Bass and Asa Warren, of Bangor, Me., are in the city consulting the American colony here, with a view to

working up opposition to the free lumber clause of the Wilson bill. Every sawmill but one at the mouth of the St. John river is owned by Americans, and the cut, which is supposed to be of logs from the State of Maine and floated down the St. John river to this city to be sawn, is admitted into the United States free of duty. It is notorious, however, that not more than one-third of the sawn lumber shipped from New Brunswick is cut in Maine, and the Cleveland Administration has had detectives at work recently looking up the figures. In view of the further fact that the chief American lumbermen here are Republicans and large contributors to the Republican campaign fund, it is not likely that the Democratic majority in Congress will pay much attention to their representations. Speaking to a reporter, Mr. Bass, who is a staunch Democrat, said the American residents of this city had a large amount of money invested in timber lands, mills, etc., which investments had been made in full belief that the duty would be maintained. If the free clause could not be recalled it was hoped a compromise might be effected in such a way as to gradually take off the duty, thereby giving the Americans time to work off their Canadian stocks and get out of their investments, if they so desire. Mr. Bass will report the result of his visit to the Bangor lumbermen.

### Down in Old Virginia.

The saw and planing mill men of the Southern States have forwarded to Congress the following protest against the Wilson bill: "There is no other business where the capital is invested that pays so small a margin. It is only by the use of large capital, invested in all best labor saving and wood preserving appliances, that a profit is made. Especially is this the case in lumber operations of the south, owing to the grade of our timber; while the ground upon which it grows and the season are more unfavorable for moving the logs than in the north, making the cost of manufacture more, and at the same time the lumber commands a less price than the lumber north of us in the United States and Canada. The removal of the tax on lumber will enable Canada to market her lumber at a price that we can hardly meet. Especially is this the case in our lower grades, upon which we have no margin. It will simply necessitate our losing that much more. Only about 50 per cent. of our lumber enters into a class of work that justifies prices that pay us any profits, the other 50 per cent. being a low grade flooring and box boards, and has to be sold at a price that does not pay, and the latter at a loss. At the same time it must be made. It therefore raises a question of our being able to work if the prices suffer a reduction by reason of a removal of tax; and the suppression of this industry must necessarily bring distress upon a very large number of people. With the exception of the very small margin to the manufacturer under favorable circumstances, the value of the entire output represents labor and stumpage on timber."

### Views of a Canadian-American Firm.

H. B. Shepard, of the Shepard-Morse Lumber Co., of Ottawa, Canada, and Burlington, Vt., said: "We think it is an advantage to the country to put lumber on the free list, because in the first place we feel very sure that the Michigan and Western pine men in general were instrumental in reducing the duty on pine when it was reduced from \$2 to \$1 a thousand. The reason for that was that the Canadian Government had imposed an export duty on logs, and the Michigan mills were unable to get logs in our own country, and, therefore, Westerners promised to reduce our duty on pine one-half, with the understanding that the duty on logs should be removed. If this restricted the production of this lumber in our country for the time being it would not be an injury to the country, but would enable

our forests to grow and give standing lumber a much greater value and would deplete the Canadian forests. It was quite noticeable when the duty on lumber was reduced before that the price went up on good pine from \$1 to \$4 on a thousand. We don't attribute this rise in the price of pine to the removal of the duty, but it goes to illustrate that the law of supply and demand is a much greater element than the reduction of the tariff. Consequently we feel that if the duty should be taken off of lumber, and that if the demand was good next spring, it would not affect the price materially. But it would benefit the Michigan men and Westerners, because it would prevent Canada from imposing an export duty upon logs, and thus the Western mills would be kept running. The same argument will apply to spruce, inasmuch as our own spruce is being cut off very fast, and it wouldn't be any injury to allow our forests to grow and deplete the forests of Canada."

### On the Pacific Coast.

Victor H. Beckman, associate editor of the Puget Sound Lumberman, of Tacoma, in a recent interview, said: "If the proposed measure passes Congress there is no question but the lumber industry of the Pacific Coast of the United States will suffer. The lumbermen of these states, irrespective of political affiliations, are on record as being opposed to putting lumber on the free list. Fifty million dollars in round numbers represent the capital employed in the lumber industry of the Pacific Coast. There are 840 sawmills and 404 shingle mills in the states of Washington, Oregon and California, whose output of lumber footed up last year 2,300,000,000 feet of lumber and 2,200,000,000 shingles, of the aggregate value of \$27,000,000. The number of men employed in the logging camps of these states is 27,000, to whom are paid in wages annually \$18,000,000. Naturally, this industry, the mainstay of at least Washington and Oregon, is vitally interested in the tariff question. British Columbia, which will compete with the three states above mentioned, possesses a greater lumber area than the three states combined. Last year Washington and Oregon shipped into California, which is a great lumber consuming state, 325,000,000 feet of lumber, and shipped eastward to the prairie states 150,000,000 feet and 1,100,000,000 shingles. It is conceded that British Columbia will cut seriously into the California trade, and perhaps compete to some extent with Washington and Oregon lumber in the Eastern states if lumber is placed on the free list. The large cargo mills of British Columbia employing Chinese and Kanaka labor, there being little or no restriction to the importation of alien labor there, are in a position to unload into California vast quantities of lumber in competition with the mills on this side of the line, which pay white labor higher wages than obtain in any other industry section in this country. As fully one-half the exports of lumber from Washington and Oregon find their way to California, this is a very serious matter. So far as the eastern trade is concerned, there is but little direct competition, the British Columbia mills not having found a market as yet, but directly a lot of cheap lumber gets into the prairie states via the lakes and on the Atlantic seaboard, it will naturally handicap the shipment of Pacific Northwest fir, cedar and spruce by rail. British Columbia shingles cannot compete in the East with the Washington and Oregon product. Unlike a sawmill the bulk of the labor in a shingle mill is skilled, and as skilled mill labor commands the same remuneration in British Columbia as on Puget Sound, and as the cost of raw material is also about the same, there is no danger from that source. But the cheap shingles from Eastern Canada may do considerable harm in the prairie and may naturally cause the demand for the cedar article to drop off in a measure."

## BAND SAW RUNNING.

By F. J. HAMMON, IN "WOOD WORKER."

GIVE a man a strange band saw, in a strange shop, and expect him to turn out a job of first class sawing the first time. What must that man do to meet the conditions? He doesn't know whether the saw is in good condition, or whether it isn't fit to saw up turnips for a lot of cows.

The only way for this man to do is to test the saw, and if it is not right to make it so. First he will take off the saw and lay it aside for a few minutes. Then he will give a lift on both wheel axles to see if there be lost motion in the bearings. If there is, he will take it up before going further. The covering of the wheels is supposed to be in fair order, and he will pay no attention to that.

The saw should be laid on a table, or bench, coiled in three loops, if room is limited, but it is better if laid out singly. Go over the saw carefully, and pinch out the kinks and bends. Most of them can be removed by merely bending the saw between the thumb and forefinger of each hand, but hammering may be necessary to remove some of the worst kinks, a mallet is the tool to do it with.

Lay the saw on a hard wood plank, or block, and a mallet will take out the kinks without bending the saw. This a hammer will not do. It bends the steel in one place by taking a kink out of another. Sometimes a saw is so badly kinked that the bad part must be cut out and the saw brazed up again.

Having made the straight saw, it is placed carefully on the wheels, and strained up. Then all the guides are removed, or at least set back so far that they do not touch the saw at all. This means, as stated, all the guides, and includes as well as the top and bottom ones, that one on the "going up" part of the saw. This "guide" should not fit the saw closely. It is only intended to prevent excessive vibration of the saw blade, which is apt to occur when a heavy cut is being taken.

The saw should be revolved by hand during, and a few times after, the removal of the guides, for the wheels may be out of line and the saw get a chance to run off, if running fast at the time. Be sure the little guide just above the lower wheel is out of the way. Then, with the saw running slowly, change the hang of the upper wheel until the saw runs fair on both upper and lower wheel. Sometimes a good deal of patience is needed to bring this about, but it can be done.

Stop the saw, set a try-square on the saw table and see if the saw agrees with front edge of the blade. Try the saw in two positions—sidewise and edgewise. The nicety of this adjustment is what makes a saw cut square. If the saw is fitted with a tilting table, it does not take long to adjust things. If the table is solid, the adjusting laterally must be done by either moving the bearings of one of the wheel shafts, or by putting on more or less thickness of rubber tire on the upper or lower wheel, as may be required.

The vertical adjustment, edgewise of the saw, must be done by putting the rubber tires in good condition, when a slight movement of the top adjusting screw will make the saw track back and forth on the upper wheel as desired. But if there be a lot of ridges and hollows in the wheels, the saw will run on one ridge until the top wheel has been tilted enough to pull the saw off its bed, then with a rush it will jump across the intervening hollow to the next high place.

As stated, if the wheel tires are in perfect condition, the saw adjustment is easy, but when the tires are out of shape, there is nothing to do but to fix them up before going further. After the saw has been made to run plumb both ways, take hold of the guides and adjust them to bear easily, yet very snugly, to the saw. If a patent top guide be used, see that it is clean and well oiled, also that it is sound and free from cut places where the saw has run while the guide stood still. By "patent" guide, I mean one set at an angle to the line of the saw so that the guide wheel runs very fast in its bearings, but the saw, instead of having to run in the same place (on the guide), all the time strikes clear across the guide wheel, which is about half an inch wide and slightly conical like the blank gear of a worm wheel. This kind

of guide is all right as long as it is not allowed to stick and thus stand still while the saw travels in one place over it; when this happens, the hardened steel guide quickly has a slit cut into it by the back of the saw. Once get one of these guides cut in this way and it is useless for the purpose intended until ground up again. Therefore, if the patent guide be found cut or otherwise damaged, take it right off, put a hardwood plug in its place and send the guide wheel to be ground up again, forthwith.

I have run many different kinds of lower guides, but there is nothing I know of better than a bit of well seasoned hickory wood, put in so the wear comes on the end of the grain. Probably three pieces of wood make the best lower guides, a casting being made to hold them all in place. The back or main bearing stripes should be, as stated, of end wood, having at least two inches of vertical bearing. Some very good forms of guide-holders allow a round piece to be turned up in a lathe, then shipped into the holder, but usually a square block is used, the casting being fitted to receive it.

The saw cut in end of bearing block should always be made with a narrower saw than the one which is to run in it. I like to make the cuts either by hand, with a fine hack saw, or else make up a number of bearing blocks and then put on a thin saw, with no set in it, and slot all the pieces at once.

The saw guides should be made to bear at an angle of 45 degrees. They ought to be flat and smooth on their upper edges, so as to carry down and off all the sawdust and small chips that happen to fall on them. In running upwards and coming together at an angle of 45 degrees, the side guides naturally turn away all sawdust, etc., and keep it from going between saw and pulley.

Having adjusted the guides nicely, take a piece of emery wheel, or an old file set into a block, and joint the saw enough to make all the teeth touch; then set and file. After this has been done, replace the saw and with an ordinary oil stone, smooth up the sides of the saw, taking off the burr caused by filing. Next, oil the guides and saw with a rather thick oil. If sawing hard or yellow pine, it will be necessary to use kerosene oil freely to keep the pitch from gumming up the saw. In case of gum, use oil freely, then with a hard wood stick, get a bearing over the top guide and scrape off the gum as soon as the oil softens it.

A saw well sharpened, slightly set, and in the condition described as above, will cut square, smooth and true. A good test is to dress out a bit of two-inch plank about eight inches long and seven or eight inches wide, square one edge and set the block on the square edge, then run up to the saw and see if the cut commences clear across the whole side at once. If it does, the saw stands square. Then saw a half circle  $1\frac{1}{2}$  inches radius, out of the plank still standing on edge. The saw should cut it out so that when the core is reversed and laid back, it will fill all alike the whole width of the plank.

## TEETH OF BAND SAWS.

THE usual shape and pitch of the teeth supplied by most makers of small band saws are of a very short pitch and sharp edged at the gullet so that when there is an undue strain on the saw it generally breaks, being deprived of its elasticity by the sharp angle, says an English journal. Breakages will often occur when the saw is revolving round the pulley without being in actual work, and the fractures always begin at the bottom of every second tooth. The reason of this is that when the saw runs over the pulley the teeth remain straight and form a number of edges, instead of adapting themselves to the shape of the pulley and whenever this occurs there is a liability to breakage. By far the greater number of breakages occur through the saws being badly sharpened, which is often the case, for many sawyers either do not take the trouble of doing it correctly or have not been sufficiently instructed in the matter. We have often seen saws rendered unfit for further use by bad sharpening, the original shape and pitch of the teeth being horribly mutilated, the bottom parts, which ought to be rounded, are converted into sharp edges, and the points which ought to have an equal distance apart and an equal height, are most

irregular, the result being that the saw is broken by its first turn of the pulley simply because the uneven set of the teeth puts too great a strain on the saw blade, and is sure to break at all those parts where the bottom of the teeth have been cut sharp. This can be demonstrated by taking a brass or steel square and drawing the two ends from each other, and it will at once be seen that the square can not possibly break in any other place but at the angles, now as the saws work downwards every tooth is resisted by the wood, and is acted on in a similar way; therefore, where there are sharp angle breakages must sooner or later occur. Attention is therefore called to the necessity of keeping the teeth even and rounding them at the bottom in sharpening.

## SP LICING WOVEN BELTS.

MACHINERY, an English journal, furnishes the following: Everyone who has had any experience in the splicing of that class of woven belts which are now in such extensive use, is fully aware of the great difficulty which exists when it is necessary to join them. The most common practice is to join the two ends by malleable iron fasteners, which are fitted with screwed shanks on which nuts can be placed. In what is, perhaps, the most successful of these arrangements the ends are turned up and belted together in this way. But it is obvious that, whatever may be the merits of such an arrangement, it is calculated to throw the belt out of balance while it is running, owing to the addition of weight at one point. This has not been objected to hitherto because of the general effectiveness of the fastening, but it is quite clear that a method which while equally effective, is free from the fault named, would be of considerable value. Such a method has been introduced by an enterprising firm, who proceed by splitting the ends of the belts by suitable means. In lieu of this the belt may be woven in layers at the point where it is desired to join it, but this, of course, implies a foreknowledge of the length of belt to be required. Having obtained the necessary division, however, by any means two of the four plies of tongues formed are cut away, and the two ends are then fitted into each other. Thus the finished joint is of practically the same thickness as the weight of the rest of the belt. By means of suitable cement and glue, a perfect union is obtained, but it may be made more secure by the employment of laces, wire threads, or rivets. It is claimed that the belt piece is not only as strong at the joining as any belt piece of the ordinary method, but that, being of an even thickness throughout, it is in a truer balance, which in high speed machinery is a matter of some importance. The perfect interlocking of the two ends enables a secure fastening to take place, which renders the belt equal in strength at this point to any other portion of it.

## PRESERVING BOILERS FROM GENERAL CORROSION.

SOME additional evidence is reported in the foreign journals of the success of the method announced some while ago for preserving steam boilers against pitting and corrosion. This is accomplished by fixing electrodes in the boilers and sending periodically currents of electricity through them, under definite conditions, adjusted and controlled by automatic action. When the current is passing from the anodes suspended in the boiler to the shell, hydrogen is liberated on the shell and tubes and oxygen on the anodes; then, by means of the depolarizing apparatus the action is changed, most of the hydrogen and oxygen recombining, with the result that during the first period, the hydrogen performs two distinct functions—first, it disintegrates mechanically, by its volume, the scale formed on the shell and tubes, and second, some of the hydrogen combining chemically with the oxygen of the oxide of iron on the shell and tubes reduces this oxide to metallic iron, thus doing away with the oxidation of the boiler without wearing away the metal. The secondary action, in a word, is to facilitate the disintegration of the scale, hasten the mechanical action of the hydrogen in bursting it off, and prevent polarization of the shell and tubes—oxidation, it is well known, not being able to take place in the presence of hydrogen gas.

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WHAT IS FREE LUMBER?

TO THE EDITOR OF THE CANADA LUMBERMAN

SIR, I notice from your December issue there are different opinions of the meaning of manufactured lumber. About three weeks ago, Wm. Bennett, M. P. for East Simcoe, called on me and wished to know my opinion of the Wilson Tariff Bill. I answered, it would be worth millions of dollars to Canada if we only secured half of what the pending bill calls for. Mr. Bennett wished to know if I understood that planed, or tongued and grooved, or other work on lumber would be admitted free. I answered, no. Mr. B. said many lumbermen claimed that unmanufactured lumber was as we find it piled at the mills, and manufactured lumber was after it had been planed, tongued and grooved, or other work put on it. I claimed unmanufactured lumber is as it exists before it is manufactured, and that is as you find it in the log; and this enters the United States free. Manufactured lumber is the product of the log after it has been cut up, and the duty on this, as recommended, will be 25c. per M. Lumber planed, tongued and grooved, or other work done on the same, is finished lumber, and the duty on it would probably average about the same as now.

With the United States and Canadian Government the principal thread woven into the tariff fabric is to admit the raw material free, upon which labor by home artisans will be performed. To allow planed or finished lumber to enter the United States free, would be contrary and fatal to the main principle.

Mr. Bennett suggested that I write to the Hon. Wm. L. Wilson, Chairman of Tariff Committee, which I did, and enclose answer received.

Washington, D.C., Dec. 16, 1893.

C. H. CLARK, Esq., Barrie, Ont.  
Dear Sir,—I am directed by Hon. Wm. L. Wilson, Chairman of Committee on Ways and Means, to acknowledge receipt of your communication of December 14th, on the subject of rates proposed on lumber in the pending tariff bill. Sawed lumber has been made free and lumber planed or further finished, made dutiable at various rates.—Respectfully yours, HENRY TAYLOR, Clerk Committee of Ways and Means.

This letter, it seems to me, makes clear, a matter concerning which lumbermen have been in doubt.—Yours truly,  
Barrie, Ont., Dec. 20, 1893. C. H. CLARK.

EXPORT DUTY ON LOGS.

TO THE EDITOR OF THE CANADA LUMBERMAN

SIR,—I regret having to trouble you so frequently, but as the matter is of great importance I trust that you will pardon me, as it would appear that some of our people are not only willing to sacrifice their country's interests but even their own, if by any means they can make a point against the Government, for as you will observe, no sooner had the Hon. Mr. Foster announced the intention of dealing with the question of the export of sawlogs and pulp wood in a manner that would place our people on an equal footing with strangers who are now dependent on our timber to stock their otherwise worthless mills than they rush forward with the most absurd arguments to try and defeat this object. As a case in point I find the following statements made by Mr. Crannell, of Ottawa, and on account of its importance telegraphed to the Press: "The export duty on logs would mean a great loss to the Ottawa lumbermen, since a dollar per thousand would be added to the duty placed on sawed pine lumber entering the States from Canada. This loss it is estimated would reach about \$250,000 as far as the Ottawa trade is concerned." Any one at all conversant with the conditions, and possessing any business intelligence must know that the re-imposition of the export duty would have exactly the contrary effect. It is of course with the lumber trade as with most other branches of trade, true, and within reasonable bounds supply and demand govern the price obtained for products, and unless the export duty would increase the amount of lumber manufactured, which is absurd, no such effect as pretended can possibly arise from a re-imposition of the export duty. Those directly interested in this trade say just the contrary, for you will see the Saginaw Board of Trade Review states: "The repeal of the export duty on saw logs exacted by the Canadian Government greatly stimulated the rafting of logs across Lake Huron to Michigan mills the past 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." And for 1893 it is estimated this has been increased to about 250,000,000 feet to mills on the Saginaw river alone, without taking into account large receipts at Cheloygan, Alpena and elsewhere. Certainly, if the repeal of the export duty greatly stimulated the rafting away of the logs its re-imposition should enable the Ottawa lumbermen to get higher prices for their lumber instead of a less price as claimed. And when you consider that nearly every foot of lumber made from these expatriated saw logs comes directly into competition with the product of the Ottawa mills, and that the amount taken over free of export duty greatly exceeds the whole of pine lumber sent from the Ottawa river to the American market, a reduction in the amount of the export of saw logs would naturally add several dollars a thousand to the price of pine lumber at Ottawa, by reducing the supply to less than the requisite demand, so that more than the extra dollar of duty would be readily paid by the Americans in order to get the lumber, until such time as they come to their senses and removed the entire duty from lumber and pulp, to enable them to get the logs and pulpwood free. Even the extra price the logs would cost their manufacturers, having to pay the \$2 export duty, would be at once added to the price they would ask for their lumber made from these logs in Saginaw, so that on this account alone the Ottawa lumber should sell, even with the extra dollar duty, \$1 a thousand higher than under existing conditions. But it surprises me not a little to find any Canadian, or for that matter American, objecting to the proposal indicated by the Hon. Mr. Foster, for he does not even intimate that he purposes exacting more than "equivalent export duty on logs exported to any country which imposes heavy duties on Canadian lumber and pulp." Whereas the American lumberman has always, and do even now insist, that \$2 a thousand feet is but a reasonable measure of protection to the sawmilling industry of the United States, so that we should be entitled to exact this amount in excess of any duty imposed on our lumber without protest on their part. And when we see a pack of these Michigan lumbermen, whose very existence depends on Canadian timber to stock their mills (their own being used up) meet in Toronto and with unseemly impudence unaniously decide on requesting the active co-operation of all operators to oppose the taking off, or any reduction of the American duty on Canadian lumber it appears to me it is about time to consider our own interests in this matter and ask the Government why it does not take a leaf out of their book and insist on exacting a rate of duty on the exported logs, as much higher than the American import duty on our lumber, as these gentlemen claim is necessary to protect the saw-milling industry of the United States. There is, however, one fortunate circumstance connected with the meeting of these gentlemen in Toronto that may be worth noting, that they at the same time declared their intentions, owing to the depressed condition of trade in the United States, to do little or nothing in their Canadian operations this winter, or we would be regaled later on with statements from them and others that it was owing to the remarks made by the Hon. Mr. Foster they restricted their operations.

Permit me also to say that Mr. Crannell is inaccurate in stating that loss to the Ottawa river trade would be \$250,000 even if our people had to pay the extra \$1 duty, which I insist they would not, for this supposes an export of 250,000,000 feet of pine lumber from there to the American market on which duty would be paid, for the whole deals and lumber is barely 450,000,000 this year; and deducting the deals and the lumber required for home consumption, the amount of pine lumber to be exported to the United States from this season's cut cannot much, if at all, exceed 200,000,000 feet, or about 50 per cent. of the amount of lumber to be made in the Saginaw river district alone from the free exported Canadian sawlogs.

Wm. LITTLE.

Montreal, Que., December 22, 1893.

THE LIMITATION OF ENGINE SPEED.

THE practical limitation to high rotative speed in stationary reciprocating steam engines, says writer in Cassier's Magazine, is not found in the danger of heating or of excessive wear. The cause of both these, it is now well understood, is to be looked for in defects of design or construction, commonly of both, as they generally go together, and where these do not exist to a degree which is of practical moment, a bar to the proper employment of higher rotative speed appears long before a tendency to heat or wear is to be observed. Correct designs are now generally followed, in both the fixed and the moving parts of steam engines, and a high degree of truth is readily attained in their construction, so that it has come to be a simple matter to make engines which can be run at a very high speed quite free from either of these difficulties.

Contrary to the general belief, no objection to very rapid rotation is afforded by the development of centrifugal force in

the fly-wheel or band-wheel. The wheel of high-speed engines have generally solid rims, and no case of their bursting has, I believe, ever been known. Disasters from this cause have been confined to engines not designed to be run at high speed, and have sometimes occurred when the speed was only slightly accelerated above the normal rate. In these cases the wheels have been built in segments, with surprising disregard of necessary strength in the flanges and bolts by which the segments were held together.

Again, an objection to very high speed is not found in a tendency to knock on the centers. In a properly designed and constructed engine, in which the valves are correctly set, and which is run by steam, high speed tends to silent running. Noise from bad design or bad work, from insufficient lead given to the valves, and from water in the cylinder, is excluded from consideration. It is admitted, with pride, that the bad consequences of these defects are aggravated by high speed. This revelation of them has wrought an entire change in engine construction, not yet completed, and even makers of slower speed engines have largely profited by it. But it is obvious that there is no excuse for their existence. The only legitimate cause of knock on the centers is loose boxes, and knock from this cause is softened as the speed is increased, and at extremely high speed will disappear entirely, owing to the force of the steam at these points being absorbed in overcoming the inertia of the reciprocating parts.

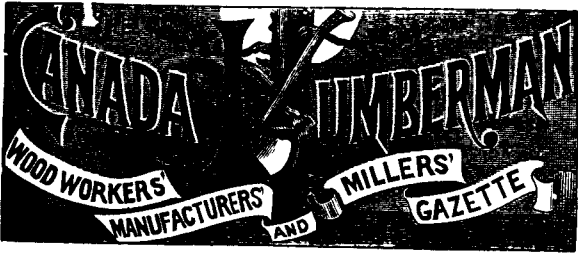
Vibration is not an objection to very high speed, because it is an easy matter to so design and construct an engine and balance the running parts that it shall be free from vibration at any speed whatever. Again, very high speed is not objectionable, per se. If an engine runs in silence, completely free from vibration, without any tendency to warm, and without wear of any running part, its very speed renders it an object of special admiration, even to those to whom such speed is new. Whenever extremely high speed in a steam engine has caused any other feeling in the beholder than that of admiration, it has always been the case that it has been attended with something annoying, a noise, or a jar, or some uncomfortable action which ought not to have existed.

All this being true, there still remain two considerations of a controlling nature, which require that the rotative speed of engines shall be kept within moderate limits. The first of these is, that engines ought not to be run as fast as they can be. It must, on reflection, be obvious to every one that an engine should be capable of running, and that, too, with entire satisfaction, so far as its motion is concerned, a great deal faster than it is run. This is the solid ground of security and confidence. It means peace and comfort, and helps to make men sleep well o' nights. It means long life to both engine and builder.

The second objection to the employment of extremely high speed is a very serious one indeed. It is the large amount of waste room in the port, which is required for proper steam distribution. It is in the important respect of economy of steam, the high-speed engine has thus far proved a failure. Large gain was looked for from high speed, because the loss by condensation on a given surface would be divided into a greater weight of steam, but this expectation has not been realized. Far from it. The performance of this class of engines shows, instead, a positive, and in some cases a large loss in economy. For this unsatisfactory result we have to lay the blame chiefly on the excessive amount of waste room. It has already been pointed out by Mr. Harris Tabor that the ordinary method of expressing the amount of waste room, in the percentage added by it to the total piston displacement, is a misleading one. It should be expressed as the percentage which it adds to the length of steam admission, and then every one would see what a serious thing it is. For example, if the steam is cut off at one-fifth of the stroke, eight per cent. added by the waste room to the total piston displacement means forty per cent. added to the volume of steam admitted. Under these circumstances it is obviously the duty, and for the interest, of builders of high-speed engines to adopt every expedient for reducing the amount of waste room that can be done consistently with proper admission and discharge of the steam. For this, the first requisite are modern piston speed and longer stroke.

Engines of four, five and six-foot stroke may properly be run at from 700 to 800 feet of piston travel per minute, but for ordinary sizes I would recommend and urge that 600 feet per minute be taken as the limit of piston travel, under all circumstances. This will give from 300 revolutions per minute with twelve inches stroke to 100 revolutions per minute with six inches stroke, with which purchasers ought to be satisfied.

I would ask builders, in their own interest, to resist the temptation to get the utmost out of a given engine, and to set their faces like a flint against the demand for short-stroke engines, which shall occupy but little room, and from which the required power can be got by speeding up beyond the limit here proposed.



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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.

A WORD WITH SUBSCRIBERS.

THE January CANADA LUMBERMAN goes to a large number of subscribers with bill enclosed for subscriptions that fall due at the new year. The amount in most cases is not more than one dollar, and, even where arrears are owing, the indebtedness to the individual is only trifling. But 2,000 such accounts mean anything from \$2,000 to \$3,000 to the publisher, and money is much needed by him at the present time. It costs a heavy outlay each month to produce a journal of the completeness and character of the LUMBERMAN. Subscribers, we have reason to believe, appreciate these efforts to give them a first-class trade journal. Our desire is to make further improvements during 1894. Saying this much, we believe we can rely upon subscribers responding favorably to the present request to remit promptly the amounts now due.

KEEPING QUIET ON THE TARIFF.

A NEWSPAPER editor has seldom any occasion, in the present day, to enter an apology for the publication of the most complete information obtainable bearing upon any subject which is within the province of his journal to discuss. There was a time when it was interesting to quote Milton, for example, on the liberty of the press, but that day has gone, we fancy, not to return again. The general experience is that subjects, even those of a technical and class character, lose nothing by discussion. The whole truth will come out in any case sooner or later.

Still the question does not entirely die. Ever and anon the right of reporters to enter the precincts of some committee room, of, perhaps, church or state, is questioned; and it is only a few months since that the question was raised by a trade journal, whether it was wise, in discussing market conditions of the various trades, for the representative journal of these particular trades to always publish all that might be known of the conditions of the market. The inference was that it might pay sometimes, in order to gain a temporary advantage, to suppress certain information in the possession of the editor. The trade press of the country quite generally took up the question, and the almost unanimous opinion was against a policy of concealment, as hurtful to the best interests of commerce and a

reflection on the intelligence of the business men of the country.

We have been led into this line of thought at the present time through the receipt of a letter from an esteemed correspondent, and one of the large lumbermen of the Province, doubting the wisdom of the newspaper press, the CANADA LUMBERMAN not excepted, in publishing so freely the opinions of Canadian lumbermen and others on the proposed tariff changes, making lumber going into the United States free. The contention is that it will be a good thing for the lumber trade of Canada—though our correspondent weakens his argument on the necessity of Canadians keeping quiet, because they are the gainers, by adding that the United States will also be benefited by the passing of the bill—if the Wilson bill becomes law, but we are only prejudicing our case, it is said, in the eyes of Americans when publishing this fact, and "giving tariff reformers a chance for argument, as it is not likely the Americans make these tariff reforms in order to benefit Canada, nor any other foreign country."

It may be remarked here, that lumbermen, both of Canada and the States, are quite free and open in expressing their views on the tariff question. They know when they talk to newspaper representatives that they are talking for publication, and whilst some are more reticent than others in expressing an opinion, it is plain from the much that has been said, that the trade do not as a whole consider that silence in this case is golden.

So far as there is any force in the argument of our correspondent to "keep quiet," it is based on the theory that lumbermen are of one opinion on the Wilson bill. This is not altogether the case. A considerable number believe it would be helpful to the lumber interests of Canada, but as is shown by a study of the interviews, and articles from the trade, that have been published during the past few months, a contrary opinion is held by at least a fair section of the trade.

The letter closes with a statement that a newspaper editor is not likely to allow to pass unchallenged. Condemning newspapers for writing so much on the tariff question the writer interprets their motives in doing so in these words: "But I suppose newspapers are not particular as far as the interests of their country are concerned, as long as they give their subscribers something to read." This, it may be said, is indeed the "unkindest cut of all," coming from a generous and big-hearted lumberman. Newspapers, like lumbermen, have a very considerable interest in the welfare of their country. Our correspondent, as a public man, as well a lumberman, would not forget, we are sure, were he to tell us of the progress and vitality of his own local section, to give credit to the press of his town for what it has done to advance the best interests of that section. Not unlikely it is due to the press of that community that they have as their chief executive officer a man of sterling qualities both as citizen and mayor.

A newspaper needs to be particular what it gives "its subscribers to read." Any-something will not do. Newspaper readers are critical of the dish that is set before them daily, weekly or monthly. One reason why newspapers to-day are paying so much attention to tariff matters is because their readers want to learn all they can about the question, and especially what the leaders in the various lines of commerce think of it. Because the CANADA LUMBERMAN is a live, up-to-date journal, and it has carefully studied its readers' desires, is why just now we are giving considerable space to a discussion of the tariff, as affecting lumber, presenting fairly, we believe, both sides of the question.

EDITORIAL NOTES.

ASSUMING that cedar shingles of British Columbia may some day take possession of the Ontario shingle market, the question was asked of an Ontario lumberman if such an event would be a serious blow to Ontario manufacturers, and the answer was an emphatic "No." This lumberman claims that years ago he discovered that he could make three dollars a thousand more by converting his logs into lumber than by cutting them into shingles, "and other lumbermen are fast learning the same lesson."

ONE whose duty it has been to report the lumber market has often been puzzled to understand the distinction between "hard" and "soft" woods. In a rough way the trade has designated stocks other than pine as hardwoods. It has remained for a sharp Yankee wood seller to get the matter decided by the courts. He has contracted to deliver hardwood and tendered poplar. The courts held he was justified in that all trees that bear a leaf are "hard," the distinction being drawn between the leaf-bearing and the evergreen varieties.

AN article of considerable length on "Free Lumber and Pulp," which appeared in a late issue of the New York Journal of Commerce, has been reproduced in a number of trade journals, and has called forth liberal comment from several. Supported by generous quotations and evidence from those who are believed to have made a careful study of the question the main argument is for a greater preservation of the forests both of the United States and Canada on the ground that in the two countries they are becoming rapidly depleted. The writer quotes Professor Sargeant as showing that the amount of spruce in 1880 in the New England states was barely sufficient to last for ten years, and would be pretty well harvested by this time. The contention is that Canada can well afford to go slow in disposing of her pine and spruce.

The British Columbia Shingle Manufacturers' Association has finally become an accomplished fact, all the shingle manufacturers in the Province having enrolled themselves in the membership. There has been considerable cutting of prices in shingles on the coast, late, both in British Columbia and Washington Territory, and the hope is that the present organization will end this practice, and furthermore result in an advance in prices, leading manufacturers claiming that there is no profit made at present prices. Any attempt at a combine that would lead to an exorbitant increase in profits is to be condemned in the best interests of trade. It is quite noteworthy, however, that whilst there is on the one hand a strong tendency in nearly all branches of commerce towards centralization and combination for monopolistic purposes, that, perhaps, at no time were bankrupts being made faster by reason of the opposite evil, of cutting prices until business is carried on in many cases at an actual loss. A happy medium is the desired millennium in this case.

AUSTRALIAN colonists are hopeful, that the greater durability of certain of their woods over the softer woods of America will cause a demand for them in this country for paving, railway ties and like purposes where undoubted durability is a first essential. We have pointed out on several occasions the extent to which wooden pavements are the vogue in London and other European cities. To some extent Australian woods are used in these countries, and have given, apparently, good satisfaction. At least wooden pavements do not lessen in popularity there as they do in this country. Greater care is certainly exercised in laying pavements in English cities, and in this particular there is a lesson for the people of this country. One difficulty that would seem almost insurmountable, however, to the use of Australian woods in Canada for paving purposes is competition with vitrified brick and asphalt, is pointed out by the Canadian Architect and Builder, and that the great distance and consequent expense in freight rates. But "it might be possible," suggests our correspondent, "to find a market here for certain kinds of interior finishing woods, which might be partially manufactured in Australia and shipped so as not to occupy much space on steamers and cars. There seems some probability that an exchange of materials can profitably be carried on between Australia and the Province of British Columbia, and that a market could be found in Canada for certain Australian timbers which are specially adapted for railway ties. When the average life of a railway tie on the C. P. R. is from six to nine years, the grey-gum wood, it is said, of Australia, will endure for forty years for this purpose."

## NEWS AND NOTES.

Snow in the Georgian bay district is about 14 inches deep and good progress is being made in skidding.

Mr. Ed. Fumette, while working in the Muskoka Mill and Lumber Co's. camps, had the misfortune to cut his foot.

John Burr, foreman of the Columbia River Lumber Company, B. C., was shot in the face a few days ago, whilst engaged in an altercation with a provincial constable.

Ewan Cameron, Desert, Ont., has assigned. He was a pulp wood contractor, but started a general store in December 1892, without previous experience, succeeding one, Geo. Alderson.

A fire destroyed the lumber camp of Charles Angus, Cedar Lake, north of Kingston, on Jan. 1st. Wm. McLeod, a young man, was suffocated and burned to death. Some others were badly burned.

Mrs. Mackay, widow of William Mackay, lumber merchant, Ottawa, died a few days ago, after a week's illness. Mrs. Mackay resided at the Capital for nearly sixty years and leaves a large circle of relatives and friends, by whom she will be greatly missed.

F. Atkinson, saw mill, Ailsa Craig, Ont., is financially embarrassed and seeking an extension of time. Liabilities direct \$1,600; indirect \$200 or \$300; assets \$3,000 to \$3,500, nominally. He was formerly a cooper, and started his present business a few months ago.

Fifty years ago twenty-five 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.

In the course of a week a vessel will leave Vancouver for East London, South Africa, and the cargo of lumber which she carries will be the first from Vancouver to the dark continent. Three ships destined thereto have already left Puget Sound, but the Talbot is the pioneer from Vancouver in the new avenue for exportation.

Mr. John Sykes, of Oshawa, who called on the LUMBERMAN the other day, says he is doing a large trade with the cedar shingles of British Columbia. He is able at present prices on the coast to lay them down here at a close figure. Mr. Syke. is of the opinion there is an increased trade to be done in the manufacture of doors, sash, and blinds.

It has been affirmed that 1,100 years or more before Christ, some ingenious Chinamen invented the mariner's compass. A writer to the China Review, who has been investigating the subject, now asserts that the first unmistakable mention of the compass in the Chinese records is not earlier than the twelfth century of our era, and the instrument undoubtedly became known in Europe before the return from China of Marco Polo, who is fabled to have brought it in his baggage.

An effort is being made by Mr. A. R. Sutton to enlist support for a company, which he says is ready to undertake to secure charters from the Canadian and United States governments for ship canals between Canadian and American waters. He proposes to construct a ship canal between Welland canal and Niagara river, below the falls, and another system that shall connect St. Lawrence river and the Hudson by way of Lake Champlain. He has recently been to Washington in connection with the proposed work.

An Ottawa news item says: "Barnes & Co., who carried on an extensive box shoo business in this city several years ago, and afterward removed to Rouse's Point, disposed of their business at that place a few days ago to the Mallard Lumber Company. John McFarlane, of the latter company, was in the city yesterday. The box business was quite a profitable industry in Ottawa until the United States tariff on manufactured lumber put an end to it. The imposition of the duty obliged Mr. Barnes to close down here, and when he did so he removed to Rouse's Point, N. Y. There is some prospect of the business being revived here under the new Wilson tariff, which imposes a lower duty on dressed lumber."

H. H. Spicer, of Vancouver, B. C., one of the largest shingle manufacturers of the Pacific Coast, anticipates a new trade with Honolulu and Australia, and will send trial shipments of shingles to these countries. He places his chief reliance for trade, however, on the home market, only regretting that desperate competition has of late made this trade unprofitable. The new association of Coast shingle manufacturers may be a means of remedying this evil. As an outcome of over production of shingles in 1892, very little was done in 1893 as the existing surplus was amply sufficient to supply the demand. The competition of the Soo Pacific Railway, however, opens up a possible market in the district of Ohio, etc., though a duty of 30 cents per M. constitutes a serious obstacle seeing that 30 cts. is often enough the full amount of profit dealers calculate upon receiving upon the same quantity. The largest quantity of shingles ever shipped to the East, beyond Winnipeg, was made by Spicer & Co. this summer and consisted of 15 car loads or about 15,000,000 shingles.

Alonzo Wright, familiarly known from one end of the Dominion to the other as the "King of the Gatineau," died of pneumonia the early days of the present month. Deceased was born in the month of February, seventy-one years ago, in the village of Hull, which was founded by his grandfather, Philemon Wright, who was one of those patriots who refused to remain in Massachusetts after the revolutionary war and came to this section, the sight of Hull being then an Indian trading post. He later on bought the Farmer mill and went extensively into lumbering operations, but fortune played him false, and for many years he had much to grieve his spirit owing to financial inability to meet his demands. In after life all this difficulty was removed, and succeeding good luck enabled him and his partner to lend a helping hand to those who were in distress to an almost unlimited extent. His grandfather was originally a member of the Lower Canadian Assembly and to this body deceased was returned in the year 1862, remaining a member of parliament until the general election of 1890 when he retired.

## THE MAN AND THE MACHINE.

THERE was a former time when an issue was made in the minds of working people principally in the form of "Men vs. Machines," and a labor saving invention was believed to be entirely antagonistic to the interests of manual labor, says the Metal Worker. In mechanical processes especially brains were popularly considered a less important factor than muscle, and men clung to primitive ways because they were old, and to their limited views, satisfactory. Happily, that time of obstinate ignorance is past, the prejudice against machines has largely abated, and the trials of inventors have taken a different form. It is probably that the triumphs of steam have so settled opposition that its competitor and possible successor, electricity, will have less to contend against. We have learned that the man and the machine are not in opposition, but are both important factors in the world of industry.

We would call attention to what may be termed the teaching of machinery, meaning the attempt to learn from its operations, if possible, a way of working which the artisan may copy to advantage. The machine, while it is on duty, so to speak, attends strictly to business, carrying on processes of construction assigned to it, whether simple or complex, in a consecutive, orderly, and perhaps monotonous manner. We do not imply that the man should be a mere automaton, but that the head and the hands should both be interested. If the labor is such that the hands do it nearly independently, the head may be seeking a method of helping them. In this manner inventions are generated and the machine is made which does the work faster and better than it was previously done. In those constructive operations where the machine has not replaced the man, experience has taught that the doing of the right thing at the right time, or "machine fashion," is productive of the best results. The discipline of soldiers, which is largely effective in producing a reliable fighting machine which moves at the will of a controlling mind, is illustrative of that attention to routine and detail which the young mechanic will find a good rule to work by. The ma-

chine has come to stay, and the man must adapt himself to it, learning the lesson that undivided attention to the work in hand, with a systematic progression, from start to finish, will make him successful both as a man and a machine.

## WOOD-WORLD WAIFLETS.

A QUEER drum is in use among the Nayas of India. It is formed from the trunk of a large tree, hollowed and elaborately carved and painted in front, after the manner of the figure-head of a ship, and furnished at the other end with a straight tail. The drum is raised from the ground on logs of wood. It is sounded by letting a heavy piece of wood fall against it, and by beating it with double-headed hammers.

There are 30 varieties of bamboo, the smallest six inches and the largest 150 feet tall.

Gutta percha is no longer obtained by cutting down the trees producing it. M. Rigol claims to have invented a process for extracting the material from leaves and prunings, so that the trees will no longer be sacrificed. A plantation near Singapore is about to be worked on the new method.

The period of growth in various trees has been ascertained by counting the number of rings in a horizontal section of the trunk. By this it appears that the elm lives 300 years; ivy, 325; maple, 516; larch, 576; orange, 630; cypress and olive, 800; walnut, 900; oriental plane, 1,000; lime, 1,100; spruce, 1,200; oak, 1,500; cedar, 2,000; and yew, 3,200.

One-sixth of the surface of Belgium is taken up by wood and forest. This is surprising, in the face of the manufacturing character of its industrial population and its being the most densely peopled country of Europe.

## STEAM BOILER INSURANCE.

WE take pleasure in directing the attention of the owners of boilers to the advertisement of a London Boiler Inspection and Insurance Company which appears on the sixteenth page of this issue. Judging from the large number of disastrous explosions which have taken place in Canada and the United States, it is about time that steam users were awakened to the fact that an insurance company with a heavy monetary interest in the boiler and premises will see that the boiler is in a safe condition, and that the man in charge of the engine is capable and trustworthy. It is better that the responsibility should be assumed by a company that has a staff of trained engineers, than by the owner of the boiler, who, except in a few cases, is not capable of judging of the condition of his steam plant. Within the last two weeks there were four explosions of steam boilers in Canada, all of which resulted fatally to those in charge of and in the immediate vicinity of the boilers, to say nothing about the loss through damage of the property. The subject of boiler inspection is receiving more consideration to day than it has for a long time.

## HIGHLY COMPLIMENTARY.

WHEN Mr. John A. Reinhardt, the manager for Washington Territory of the Northwestern Mutual Life Insurance Co., was spending his holidays a few weeks ago with friends in Strathroy, he took a policy on his brother with the Ontario Mutual Life Assurance Co., on the twenty payment life, twenty year survivorship distribution plan. On the receipt of the policy he wrote to the company's agent as follows:

"DEAR SIR,—Your favor enclosing my brother's policy was received this morning; accept thanks. I have read it over carefully and am entirely satisfied with the contract. It is just as you represented it, and strikes me as extremely liberal—but not too much so.

"For a young man I think it is the best policy written, and I believe your company writes the best contract on that plan offered to the insuring public to-day.—I am, yours respectfully,  
J. A. REINHARDT."  
Spokane, Wash., Sept. 7th, 1893.

MR. SEAMEN, of Seamen & Newman, of Warton, Ont., when renewing the firm's subscription to the CANADA LUMBERMAN, a week ago, said: "We appreciate the LUMBERMAN very much, and would not want to be without it."

## OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE lumber trade is enjoying holiday quiet just now. Until late on in January no activity in making sales is anticipated. The completion of stock-taking and balancing up of the year's business will be one of the early operations of the new year. It is thought, that all things considered a fairly satisfactory year's trade will be the record. In regard to work for next season that is now being pushed ahead in the woods, whilst we learn from those who have been out among the shanties that there are large gangs of men at work, yet it seems quite certain that the number of logs cut this winter will be less than last season. Of square timber, it is stated, that the total would not exceed 1,000,000 cubic feet, or not over one-third of what was taken out last season. The owners of limits are not disposed to turn their trees into timber, as it pays better now to cut them into lumber. Those who own limits are disposed to leave the trees standing for a time in the hope of prices advancing as the limits nearer home are cut over.

## AMONG THE SHANTIES.

Captain J. O. Blondin, of the steamer Clyde in the employ of Messrs. Gillies Bros., lumbermen, of Carleton Place, plying on the waters of the Temescamingue, who reached the Capital a few days ago, reports all the shanties up the river and lake in full swing and employing as many men as in any other recent season. Gillies, he says, have over 500 men at that part of their extensive farms not including jobbers. There also are equal numbers of men at work in that district for Messrs. McLachlan Bros., the Moore company, Klocks, and Bronson and Weston. The weather up to date has been most suitable for cutting and drawing, raising the anticipation of a large yield this season so far.

## INDIFFERENT LENGTHS.

An addition will be put up this winter at the side of the old Perley & Pattee saw mill rebuilt this year by Mr. J. R. Booth. The addition will run the entire length of the present building and will be forty feet in width. It will be used as a splitter mill, but several lath machines will be placed in it.

Mr. R. J. Davidson, after twenty years' service, has severed his connection with R. Thackeray's planing mill. On the eve of his retirement a week ago he was waited on by the contractors, builders and employees of the mill and presented with an engrossed address and handsome gold watch.

Work has commenced on the old McClymont saw mill in New Edinburgh, recently purchased by W. C. Edwards & Co. Its new owners will fit it up for a combined planing mill and sash and door factory on much the same plan as the old McLaren factory was run. The requisite machinery will be put in this winter so that work may be commenced next season.

OTTAWA, Can., Dec. 26, 1893.

## BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THERE is no large trade being done in lumber at the present time, and yet the Hastings mill in Vancouver, is working over-time on export orders, and the Brunette mills, here, are also very busy. We are watching with interest the outcome of tariff regulations in the neighboring country and will be quite satisfied to find the Wilson bill give us free lumber.

General logging operations are dull. Steam logging machines have worked a great change in trade in many parts of the coast. There are four of these machines in operation in the Province. The British Columbia Iron Works, of Vancouver, are now manufacturing two more on orders recently received. It is believed that they will eventually supplant all other methods of logging in British Columbia, as they are especially adapted to the needs of this class of timber. It is a matter of comparative ease for the steam logger, with his steel cable and powerful engine, to yank the huge logs off the Pacific Coast into the water over ground where oxen could not go. Although the machines are extremely dangerous to those who run them, owing to the liability of the cable to get kinked, but few accidents have thus far happened from their use. They require experienced men to operate them and first class wages are necessarily paid.

## THE NICARAGUA CANAL.

A recent telegram from Managua states that a British Syndicate is endeavoring to secure from the Nicaraguan government a transfer of the canalisation rights originally possessed by the American company, now wholly or partly insolvent. The syndicate's representatives have been informed in reply, that before any such transfer can be made, it must be shown that the original company is unable to fill its contract. The lumber trade here have no small interest, as has been pointed out in

the LUMBERMAN columns before, in the completion of the Nicaragua canal, and would like to see British capitalists take hold, as the belief is that the Canadian interests would be better protected were this so. There is at the same time a feeling that John Bull through over-cautiousness has allowed himself to be forestalled by others.

## COAST CHIPS.

Tait's shingle mill, Vancouver, B. C., was nearly destroyed by fire early this month.

The Golden Lumber Co., Ltd., of British Columbia, has been incorporated with a capital of \$100,000.

The total cut in British Columbia this season is estimated at 60,000,000 feet, of which 3,000,000 goes to Puget Sound.

Mr. C. M. Beecher, of the B. C. M. T. & T. Co., has returned from a lengthy visit to Eastern Canada, on business.

W. A. Tait, of Orillia, Ont., has been visiting here with his brother, Mr. W. L. Tait, who is conducting a prosperous shingle business at Vancouver.

Work has commenced on a canal to connect the Brunette and Fraser rivers at a point a little above Laidlaw's cannery. The Brunette Saw Mill Company have undertaken the enterprise.

It is reported that the Moodyville Saw Mill Company has sold out its mill near New Westminster to an Australian syndicate. The mill is the oldest and one of the largest in British Columbia.

Rumor has it that the MacLaren-Ross mills may change hands almost immediately and become the property of a syndicate of English and American capitalists. This is one of the finest of modern saw mills, and it is unfortunate that it has remained idle so long.

The Shuswap Milling Company has been formed and incorporated, with a view to take over the business of the Shuswap Milling Company, the Kamloops Water Works Company, and the Greeley Creek Shingle Mill Company. The capital stock authorized will be \$100,000, in \$250 shares.

It has been learned recently that several ships have been chartered to load at Tacoma, with Washington fir for Germany, consigned to the German Government for bridge building. The cargoes are ordered by a London firm, who have a contract from the French and German Governments to supply them with lumber used for national purposes. Seeing that this lumber goes through British hands, the question is asked here: Why not B. C. fir for Germany rather than Washington?

NEW WESTMINSTER, B.C., Dec. 22, 1893.

## NEW BRUNSWICK LETTER.

[Regular correspondence CANADA LUMBERMAN.]

HUMPHREY & TRITES, of Petitcodiac, will re-build on the site of the old mill, destroyed a short time since by fire.

Snow is plentiful this year, running from 18 inches to nearly 3 feet deep. Logging operations are impeded because of the hard crust that has formed in some sections.

Lumber shipments from the Miramichi for the season show a decrease of 11,519,216 feet compared with the previous year. There were 111 cargoes this year and 134 last year.

In India, and in Central and South America the white ant and other insects cause serious damage to railway ties. It is believed that New Brunswick red hemlock contains an acid poison that is proof against these pests. The St. John Board of Trade, hoping to develop a satisfactory lumber trade by virtue of this fact, will send samples of red hemlock to India and British Guiana, and have the matter put to test.

## A YEAR'S BUSINESS.

The exports of lumber from the Miramichi river, shows a falling off for 1893, as compared with a previous season. The deal trade shows a decrease of more than eleven million feet, viz., from 94,907,523 superficial feet in 1892 to 83,391,307 this year. Taken as a whole, in the opinion of the Chatham Advance, "the season's business has been disappointing. The deals wintering seem to be about the same quality as last winter, but operations in the woods for the winter upon which we are entering are put down at fully one-third less than last season." Palings show an increase of export of 220,000 pieces, equivalent to nearly ten per cent, and spool woods of 200,000, but these are not a large element in the year's transactions. The main facts stand thus: Against 134 vessels of 103,500 tons which carried deals across the Atlantic last year, there were only 111 vessels of 87,736 tons. The American Spool and Bobbin Company, which last year shipped 1,109,000 pieces, spool wood, does not appear to have shipped any this year. The trans-Atlantic shipments from Chatham for the year are thus given:

| Shippers, 1893.           | No. Vessels. | Tons.  | S. F. Deals. |
|---------------------------|--------------|--------|--------------|
| J. B. Snowball.....       | 36           | 25,169 | 22,081,347   |
| W. M. McKay.....          | 21           | 18,521 | 18,084,380   |
| F. E. Neale.....          | 11           | 12,847 | 13,519,604   |
| D. & J. Ritchie & Co..... | 20           | 10,964 | 10,606,238   |
| Wm. Richards.....         | 9            | 8,530  | 7,334,813    |
| E. Hutchinson.....        | 10           | 7,974  | 7,109,925    |
| G. Burchill & Sons.....   | 4            | 3,631  | 4,601,000    |
| Total.....                | 111          | 87,736 | 83,391,307   |

| Shippers, 1893.             | No. Vessels. | Tons.            | Pieces. |
|-----------------------------|--------------|------------------|---------|
| Clark, Skillings, & Co..... | 2            | 1,609 spool wood | 793,083 |
| S. W. Bennett.....          | 1            | 739 "            | 593,439 |

ST. JOHN, N.B., Dec. 26, 1893.

## MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

A DIFFICULTY is experienced in ascertaining exactly the number of logs rafted to these shores from Canada because of the unwillingness, in some cases, of the receivers to furnish particulars. It is believed, however, that the following figures may be taken as representing very nearly the export of the season now closed:—

|                                  |             |
|----------------------------------|-------------|
| To Cheboygan.....                | 19,038,188  |
| Alpena.....                      | 29,000,000  |
| Tawas bay and Saginaw river..... | 155,000,000 |
| Total.....                       | 203,038,188 |
| " 1892.....                      | 184,500,000 |
| " 1892.....                      | 80,000,000  |

Of the logs shipped to Cheboygan, Thompson Smith's Sons received 7,081,758 feet; Pelton & Reid, 6,106,454; Cheboygan Lumber Company, 5,223,976; W. & A. McArthur Company, limited, 626,000. To Alpena: 4,000,000 feet belonged to George N. Fletcher & Sons; 11,100,000 feet to Albert Pack and the remainder to Fletcher, Pack & Co., Fletcher & Gilchrist and to Gilchrist, Burrows & Rust. The chief shipments to Tawas bay and Saginaw river went to the Holland-Emerald Lumber Company, Sibley & Beringer, Saginaw Lumber Salt Company, Green, Ring & Co., Fisher & Turner, Pitts & Co., Spanish River Lumber Company, A. T. Bliss, Wm. Peter, J. W. Howry & Sons, S. G. M. Gates, Saxe Bros., and one or two other concerns. Our lumbermen here consider the trade has not been without considerable advantage to Canada. In the first place it has meant the investment of a large amount of American capital in Canada; employment has been given to a large staff of hands, and at better wages than had previously prevailed for similar labor, and besides a market has been found for certain grades of Canadian lumber that had hitherto been a drug in the market.

## CURTAILMENT OF TONAWANDA SHIPMENTS.

The changes in shipments of lumber from Saginaw river to Buffalo and Tonawanda in 1893 furnish subject for thought and comment. It is not many years past since Bay City and Saginaw furnished a very heavy percentage of the receipts of the pine products at the points named. This trade, however, has been gradually diminishing, until to-day the results strike the thoughtful lumberman with hard significance. In 1886 the Saginaw river shipments were as follows: To Buffalo, 129,236,000 feet; to Tonawanda, 240,639,000 feet. In 1893 our shipments were as follows: To Buffalo, 29,002,000 feet; to Tonawanda, 58,239,000 feet. Rail shipments during this period have increased but not to the extent of nearly covering the diminution of trade shown in the figures here given.

## AN OPINION ON FREE LUMBER.

W. J. Beardsley, of Bay City, presents a view of the tariff question, so far as lumber is concerned, that is entertained by not a few lumbermen of this State, and which may not be without interest to the trade in Canada: He says:

"Unless Canadian pine finds a market in this country, it may as well stay in the forests; at least two-thirds of it; and it is in the markets of the United States that they expect to sell their lumber when cut. It costs \$1.50 per thousand feet to get the logs from Canada to the Saginaw valley, and costs no more to put the lumber after it is sawed from points like Toledo, Cleveland, etc., on the lake ports, while from this valley to the same ports the cost of delivery of lumber is just as much as from Canada points, which means that with lumber on the free list, that all logs sawed in this valley cut from Canadian pine, sold in competition with lumber at Lake Erie ports, must be sold at \$1.50 per thousand feet less profit than the manufacturer who cuts his lumber in Canada, provided that lumber can be manufactured as cheap there as here, and that this can be done, we do not think anyone will dispute. With free lumber, if the manufacturer of lumber in the Saginaw valley sells his stock without having to "shrink" this \$1.50 paid for towing his logs to the mills here from Canada, it will mean that the manufacturer who cuts his lumber in Canada raises the price there just this amount, because he has the chance to do it, and if this is done wherein will the "dear people," for whose benefit the framers of this bill are so awfully solicitous, be benefited by free lumber. Lumber placed on the free list means

THE NEWS.

CANADA.

that three quarters of the labor that is employed in the manufacturing of this product in this valley will be compelled to look elsewhere for work, and with this thing brought about, it means that paying property now in this valley that is now not for sale, can, inside of two years from the time this bill takes effect, be bought for 50 cents on the dollar, and signs of "to rent" will be thicker than the flees on the proverbial dog."

BITS OF LUMBER.

Business is said to be exceptionally dull in Bay City.

The death of O. P. Burt, at Albany, N. Y., a former well-known lumberman of Saginaw, and a relative of Hon. W. R. Burt, is announced.

F. E. Bradley & Co., at Bay City, experimented with running their salt block with coal for fuel, but abandoned the undertaking as too expensive at the present price for the saline product.

I. Billingsley, of Quebec, who paid a visit to Manistee lately, says that the deal trade has been quiet this season. Of a cargo of Michigan deals they purchased last season they have still more than half on hand.

Charles Lee, Saginaw's veteran pioneer lumberman, has just celebrated his eighty-second birthday. He is the father of twenty-one children and his grandchildren number twenty. Mr. Lee's life has been one of ceaseless activity, he being at one time interested in seven planing and saw mills, one in Detroit and two up the shore and three in Saginaw.

The Cook Shingle Mill Company will this winter operate a shingle mill, six miles from Coleman, Mich. The company is composed of Colonel Bliss, A. F. Cook and A. T. Bliss. Colonel Bliss owns a large tract of hardwood, pine and hemlock timber land in that vicinity, and has laid out the village of Blissville there purposing to build up industries and develop the property.

The new officers of the Saginaw Lumber & Salt Company are: President, R. A. Loveland; vice-president, Otis Shepard; secretary, R. H. Roys; treasurer, D. L. White, Jr. The company's mill at Crow Island manufactured the past season 21,000,000 feet of lumber, 3,560,000 lath and 1,200,000 staves and 52,711 barrels of salt. It has 6,800,000 feet of lumber on the docks and 11,000,000 feet of graded lumber in yard for the car trade.

The lumbermen of Alpena closed the season fairly well satisfied with the trade done. The prospects for next year are considered good. All of the mills which were in operation this year will have a full stock of logs. About 35,000,000 feet of Canadian logs will be brought to this port next season, being 6,000,000 more than this year. There is about 50,000,000 feet of lumber on the docks, the largest stock ever carried over. Many cedar camps are in operation, and more cedar will be got out this winter than in any former year. The shipments this year are about one-third less than in 1892.

SAGINAW, Mich., Dec. 26, 1893.

PERSONAL.

Mr. C. Beck, Mayor of Penetanguishene, and big lumberman of the north, has left on a trip to Germany.

Wm. Merrier, partner with H. Veri, in saw and planing mill at Norwich, Ont., died a week ago of La Grippe.

Mrs. Frost, wife of Mr. C. B. Frost, of Frost & Wood, planing mills, Smith Falls, died at Brockville, a week ago.

Mrs. J. B. Coates, wife of the proprietor of the stave mill, at Blenheim, Ont., fell dead a fortnight ago, while in the act of crossing the dining room at her residence.

Wm. D. Lovitt, the millionaire ship owner of Yarmouth, N. S., died on New Year's day. He caught a severe cold while overlooking the repairs of one of his ships in Halifax, and this developed into pneumonia with fatal results.

TRADE NOTES.

The Waterous Engine Works Co., Brantford, Ont., report business brisk. Recent orders include four large marine boilers. Besides these: "Four complete circular saw mills, from 30 to 75 h. p. each; four single sets of saw irons, ten chopping mills, three under running mills, one Prescott direct acting steam feed and three Allis band mills, with their attendant machinery; one Veneet machine, two shingle machines, one pulp wood outfit, and a number of export orders. The company have also made arrangements with the W. E. Mill Co., of Kalamazoo, to manufacture their steam mill specialties."

WE have a notion that the man is about right who said: "Luck is ever waiting for something to turn up; labor turns things up for itself."

—A stave factory is under contemplation to be built at Guelph, Ont., by D. S. Clemens.

—An attempt was made a few nights since to burglarize the safe of F. F. Rumball, lumber merchant, London, Ont. The thief was caught red-handed.

—Agents for Nova Scotia lumbering firms are busy hiring teams in New Brunswick. They offer \$40 per month, which is above the average paid there this winter.

—John Howard, who started a lumber yard in Whitby two years ago, and in March last assigned, is again in financial difficulties. The business has been conducted since in the name of his wife.

—D. Campbell, formerly of the box factory, Midland, Ont., has taken possession of the shingle mill, lately run by Carruthers & Shaw, Penetang. Mr. Campbell intends adding box machinery in the spring.

—The French River Boom Company, with a capital of \$40,000, has applied to the Ontario Legislature for a charter. The company is organized for the purpose of facilitating the transmission of lumber down the French river.

—The Huntsville Lumber Company write, that they are putting in an Allis band mill, it being the first of that kind made by the Waterous Engine Co. Lumber operations in the bush, they report, are well advanced, so far, at least, as their section is concerned.

—It is stated that the largest amount of lumber that has arrived at Oswego, N. Y., in any one day since that city became a port, reached there on December 5th. It consisted of more than 4,000,000 feet of Canadian lumber, and was for the Standard Oil Company.

—The lumber mill of Moffat & McGregor, in Essex county, Ontario, has purchased 4,200,000 feet of logs near Tilbury Centre, in addition to a 1,300 acre tract of timber land in Tilbury East, and will employ several hundred men and many teams in getting the lumber out to be shipped on the lake Erie and Detroit River Railway.

—The mills round and about Fesserton, Ont., have all shut down and most of them have had a good run. The Point mill cut about three million feet of lumber and three million shingles. Mr. Martin's mill, four million shingles; Mr. Kean's mill, four million shingles; McPherson & Laidlaw, about two and a half million feet of lumber; Mr. Carter's mill, about the same.

—Parrsboro is the banner port of Nova Scotia for deal shipments. During the past season 40,792,476 feet were shipped. Of the total Capt. N. C. Norby shipped over 25,000,000 feet for George McKean, of St. John, and M. L. Tucker over 15,000,000 feet for W. M. Mackay. It went to British ports. The total is over 8,000,000 above that of last year. Other ports in the same country (Cumberland) sent large quantities.

—The Manchester Ship Canal (Eng.), was formally opened on New Year's day with a procession of vessels, headed by the barque Sophie Wilhelmine, from Parrsboro, Nova Scotia, laden with lumber. This vessel has been at Garston since November 27th, waiting for this public opening. The directors of the canal will pay her £100 for the delay she incurs in waiting for the public opening of the canal, for lowering her masts to pass under the bridges, etc. Her captain will receive a gold watch as a memory of the occasion.

—Judge Davidson, of Montreal, has rendered judgment in the case of Robert Graham vs. the Casselman Lumber Company, Peter Larmouth, as equal, intervenant. The action was to recover damages for alleged loss of profit resulting from the Casselman Lumber company's failure to deliver a certain quantity of wood ordered by Graham. The company had become insolvent since the taking of the action, and the liquidator, Peter Larmonth, had intervened. His honor had estimated the damages at five hundred dollars and rendered judgment accordingly.

—A deputation of lumbermen, including J. R. Booth, of Ottawa, W. J. Poupore, for Pontiac county, R. R. Dobell and H. M. Price, of Quebec, called upon the members of parliament in session at Quebec, December 21st. It was stated that the lumbermen desired to have red pine placed on the same list as spruce for license and stumpage dues, claiming that it is not of more value than spruce. They also asked for a continuance of the present order-in-council, extending to logs 11 inches in diameter the reduced scale of charges for small logs. Mr. Flynn, for the government, stated in reply that the order-in-council privilege would probably be continued for some time, but that the representations respecting red pine would have to be considered.

FIRES AND CASUALTIES.

FIRES.

—The saw mill and sash and door factory of A. W. Hepburn, Picton, Ont., was destroyed by fire during the past month. Loss about \$15,000.

CASUALTIES.

—Charles Angus, an employee in Burnett's shanty, at Cedar lake, Ont., was burned to death in his shanty a week ago.

—A young man named James Lafranchise, of Hull, Que., better known as James Michael, was accidentally killed in a shanty on the Deux Rivieres by a falling tree.

—Arthur Coone, watchman at the Kelowna saw mill in the Okanagan, B. C., has been so badly crushed by a rolling log that it is feared that he will succumb to his injuries.

—John Featherson, of Bracebridge, Ont., while at work in one of the Muskoka Mill and Lumber Co.'s camps, about eight miles above Muskoka mill, was struck with a falling tree, receiving injuries that will likely prove fatal.

—H. B. Mitchell, a well-known lumberman, who is this winter making a big cut of logs north of Lake Winnipeg, had a narrow escape of drowning a few weeks ago. Accompanied by an Indian, he was driving across the lake, when his ponies disappeared from view in a hole in the ice. Mr. Mitchell lost both his horses, but considered himself lucky in that he and his guide escaped.

—A sad accident occurred near Aylmer, Ont., by which Mr. Henry Hadyen, a young married man, lost his life. He was working in the woods alone cutting wood. Two trees were lodged together, held by a limb. He cut this limb, and it springing back struck him in the neck, breaking his collar-bone. The trees unfortunately came together, crushing him in the chest and killing him instantly. The trees had to be sawn apart before the unfortunate man could be released. He leaves a wife and two children.

NO MORE BELTING!

A NEW Belgian factory, according to a correspondent in that country, uses electricity to transmit its power instead of belting, and a brief description of his advice may prove of interest. The dynamo is 500-horse-power and forms the fly-wheel of the compound Corliss engine. The shop is supplied with 16 motors, and among them are 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 and pulleys, 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 proved that to drive all the idle machines requires more power than to drive the shops in ordinary course of work; whereas, 11 electrical horse-power is required when driving all the idle tools, only about seven electrical horse-power is needed in ordinary work, of which four electrical horse-power is used to drive the shaft and belts, alone; this shows how small a part of the power produced by the engine is actually used in useful work by the tools. Such satisfactory results of the application of electricity to factory driving must attract attention and will 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 would be switched on or off just as easily as the belt is now thrown from the loose to the fast pulley, and vice versa.

A WRITER gives an illustration of the progress of electricity as a mechanical power. He says that twenty-five years ago it was unknown, and that \$900,000,000 is now invested in various kinds of electrical machinery.



TRADE REVIEW.

Office of CANADA LUMBERMAN, }
January 2, 1894. }

THE GENERAL SURVEY.

It is difficult to enlarge to any extent on the business situation because there is not, as a matter of fact, much business doing. The lumber world over, all the quietness that comes of the holiday season, and the opening days of the new year, is here in larger volume, we fancy, than for many previous seasons.

Local trade in Ontario is as dull, we would suppose, as it will can be, whilst in the city there is practically nothing doing.

From the provinces, British Columbia, Quebec and the Maritime provinces, the reports are of little business.

Following our regular custom the February CANADA LUMBERMAN will contain our annual review of the lumber trade of the Dominion, giving details in as complete form as the information obtained from our correspondents will permit.

UNITED STATES.

The work of balancing accounts and books for the year just closed is being completed by the lumber trade generally throughout the country, and they are just now in a retrospect mood. It can hardly be said that the conclusions reached throw a very large measure of sunshine on the lumber business of the past months.

FOREIGN.

Farnworth & Jardine, of Liverpool, Eng., report in their January wood circular that continued dullness is the order of the trade. "Imports with one or two exceptions have been moderate, still the stocks of all articles are quite ample, in a few instances too heavy. Spruce deals are a little lower, and with this exception there is no change in value to record.

heavy. Values have declined about 5s. per standard during the month. Pine deals have not been imported, and there is no change in value." Denny, Mott & Dickson, London, Eng., say: "The tone of business has improved owing to the settlement of the coal strike, and the expectation of general trade being favorably affected by the pending tariff legislation in America.

TORONTO, ONT.

TORONTO, January 2, 1894.

CAR OR CARGO LOTS.

Table listing various lumber products and their prices, including 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 and scantling, Shipping cull boards, etc.

OTTAWA, ONT.

OTTAWA, January 2, 1894.

Table listing Ottawa lumber prices, including Pine, good sidings, per M feet, b.m., Pine, good strips, etc.

QUEBEC, QUE.

QUEBEC, January 2, 1894.

Table listing Quebec lumber prices, including White pine in the raft, For inferior and ordinary according to average, quality etc., etc.

RED PINE IN THE RAFT.

Table listing red pine in the raft prices, including Measured off, according to average and quality, In shipping order, 35 to 45 feet, etc.

OAK—MICHIGAN AND OHIO.

Table listing oak prices, including By the dram, according to average and quality, ELM, 14 inches and up, according to average and quality, etc.

Table listing STAVES, Merchantable Pipe, according to qual. and sp'c't'n—nominal, \$330 \$350, W. O. Puncheon, Merchantable, according to quality, etc.

BOSTON, MASS.

BOSTON, Mass., Jan. 2.—Were lumbermen to rest their hopes for the future on the trade of the past year they would surely be disappointed. Lumber was dull in 1893, the records showing a reduced volume of trade and profits.

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, including Uppers, 1 in., 1 1/2 and 2 in., 3 and 4 in., etc.

SPRUCE—BY CARGO.

Table listing Spruce prices, including Scantling and plank, random cargoes, Yard orders, ordinary, etc.

LATH.

Table listing Lath prices, including Spruce by cargo, Eastern sawed cedar, extra, clear, 2nd's, etc.

SHINGLES.

Table listing Shingles prices, including Eastern shaved sawed cedar, 1st quality, 2nd quality, etc.

OSWEGO, N. Y.

OSWEGO, N. Y., Jan. 2.—Winter quietness has settled down on the lumber trade for the present. What the future may be it is a little difficult to predict just yet.

WHITE PINE.

Table listing White Pine prices, including Three uppers, 1 1/4, 1 1/2 and 2 inch, Pickings, No. 1, cutting up, etc.

SIDING.

Table listing Siding prices, including 1 in siding, cutting up, picks and uppers, etc.

IX12 INCH.

Table listing IX12 Inch prices, including 12 and 16 feet, mill run, 12 and 16 feet, No. 1 and 2, barn boards, etc.

IX10 INCH.

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

IX8 INCH.

Table listing IX8 Inch prices, including 12 and 13 feet, mill run, mill culls out, etc.

IX4 INCHES.

Table listing IX4 Inch prices, including Mill run, mill culls out, Dressing and better, etc.

IX5 INCHES.

Table listing IX5 Inch prices, including 6, 7 or 8, mill run, culls out, etc.

SHINGLES.

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

LATH.

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

BUFFALO AND TONAWANDA, N. Y.

TONAWANDA, N. Y., Jan. 2.—Dealers are winding up stock-taking and preparing for the trade of the new year. This advantage exists in Buffalo and Tonawanda that well assorted stocks are held in the yards better than for several years, making it quite possible to nicely complete such orders as may come along.

| WHITE PINE.                               |       |
|---|-------|
| Shelving, No. 1, 13 in and up, 1 in.....  | 31 00 |
| Dressing, 1 1/2 in 1 1/2 x 10 and 12..... | 24 00 |
| 2 in.....                                 | 26 50 |
| Mold st ps, 1 to 2 in.....                | 33 00 |
| Blann, No. 1, 10 and 12 6 and 8 in.....   | 21 00 |
| No. 2, 10 and 12 in.....                  | 18 00 |
| 6 and 8 in.....                           | 18 00 |
| No. 3, 10 and 12 in.....                  | 14 50 |
| 6 and 8 in.....                           | 14 50 |
| Common, 1 in.....                         | 16 00 |
| 1 1/2 and 2 in.....                       | 18 00 |
| 2 in.....                                 | 20 00 |
| 2 1/2 in.....                             | 22 00 |



**A REPRESENTATIVE of the Burrard J. I. et Red Cedar Lumber Co., of Port Moody, B. C., referring to an interview in this page says.** "We notice an item in your December issue in which Mr. W. J. Brooks, of Grimesthorp, Algoma, claims to have an idea that the shingles of British Columbia will not be liable to enter into competition with pine shingles manufactured in Ontario. He bases his conclusions on the assumption that, according to his opinion, the cedar shingles are injured by kiln drying. To us this is an original assumption, as we have yet to learn how lumber, especially cedar shingles, rift or quarter sawn, as these are, has been injured by the process of kiln drying. The fact is we believe it to be a benefit, for the reason that kiln dried shingles shrink no more after being laid, while the pine shingles of Ontario, which are not kiln dried, will shrink, leaving openings quite sufficient to cause leaks. We have seen British Columbia cedar shingles which had been on a roof for thirty-five years. These were as sound as the day they were laid. This, we think, speaks volumes for the superiority of British Columbia shingles."

**J. D. Leary, a New York lumberman, who attained some familiar connection with the Joggins' raft, when in Montreal a few days ago said to an interviewer in answer to a question as to whether there was anything new in the lumbering business there,** "No, the Maritime provinces are dead, or might as well be dead. Of course the towns are all right, but in the country" (Mr. Leary gave a highly suggestive shrug of the shoulders), "why, I have lumbermen, sixty or seventy of them, working for twenty-five or twenty-six dollars a month, and glad to get it. They are well fed, of course. There is no business doing down there though." He intends visiting the provinces shortly.

**In the opinion of Mr. T. Charlton, of the firm of J. & T. Charlton, of Tonawanda, N. Y., with whom I chatted the other day, the Wilson tariff bill in most leading particulars is likely to undergo radical changes before it becomes law, if this should ever be the case.** "The interests even of the Democrats themselves are so varied, local conditions causing members of the same party to take entirely opposite views on particular clauses, that I can see no likelihood," said Mr. Charlton, "of a majority agreeing on the bill as it is now framed. So far as lumber is concerned the opposition from the Southern States and also from the Pacific coast is strong and aggressive, and there will be no free lumber if these sections can carry any important influence. If the bill does become law I do not anticipate that it will make any difference in price of lumber. Part of saving in duty will go to stumpage, and the rest will be absorbed in freights and other expenditures." Mr. T. Charlton, as our readers will likely know is a brother and partner of John Charlton, a member of the House of Commons, and the firm do business both at Little Current and Tonawanda.

**Among the callers at my sanctum the early part of the year was Mr. R. Simpson, of Collingwood, who is home for a short period from Newfoundland.** Mr. Simpson is engaged in saw mill building in the sister colony, having during the past year erected several modernly-equipped mills. He tells me there is a considerable quantity of timber in Newfoundland, though little effort has been made to develop a lumber business there. The prevailing timber is a wood that compares somewhat with our poplar or basswood. Lumbering is more difficult there than in Canada from the fact that the forests are scattered. Besides, skilled labor, even in bush work, is hard to secure. The natives are a well meaning people,

but they are indolent and entirely wanting in ambition. Little else, Mr. Simpson tells me, is to be expected from them because of the conditions under which they exist. They are quite bereft of the spirit of independence, being practically under the domination of the merchant-classes, who are the real rulers of the country, pay them what they choose for their labor, and keep them constantly in their debt. "I surprised a young man last summer," said Mr. Simpson, "who had done some work for me. When I tendered him his wages in cash, the young fellow said, 'I have worked steadily for eight years, and never before had my wages paid in money.' All wages are paid in accounts at the stores, and prices, I need hardly say, are not the lowest." A new railroad is being built through the country at the present time to strike a point that will help to shorten the ocean route. Mr. Simpson tells me that this work is having an influence in creating a demand for lumber, and is resulting in the breaking up of forest lands hitherto untouched.

Pen pictures of the men who have made their mark in some of the various walks of life have a peculiar interest for almost anyone. We are even prone to read of the fellow who has become notorious because of his bad deeds. Perhaps his life is the most interesting to not a few. But we do not find these sort of chaps in the lumber business, so any suggestion, on these lines, is not pertinent in the premises. A racy little sketch of Alex. Gibson, New Brunswick's lumber King, written by "Salmagundi," or in more intelligible terms, now that he has revealed his own identity, Mr. Met. L. Saley, the presiding editorial genius of the Northwestern Lumberman, has come under my notice. Were you to meet Mr. Gibson on the street there would be nothing, we are told, in his appearance to lead you to think that he was one of Canada's most successful business men; or, indeed, that he was a man of any particular prominence. He is 65 years of age, or thereabouts, inclined to heaviness, with white hair, mustache and beard. One of his chief characteristics is that he minds his own business. The commercial agencies rate him at over \$1,000,000, and with a credit that would buy the earth if he wanted it. This man came from the ranks of the laborers, and there isn't a man who works harder than Gibson did, or, probably, who is poorer than he was. A sprig of nobility visited Marysville, Gibson's home, and having been shown over the town and through the industrial establishments, asked the proprietor how he had attained such marvellous success in life. Without a word the old man threw his hat down, stripped off his coat and took his place at the edger, and having edged four or five deals he turned to the visitor, and with fire in his eye and a glow in his cheek, answered the question: "By hard work, sir!" If there is a man in New Brunswick who is bound to have his way it is this so-called "lumber king." He means always to be right, and having arrived at a conclusion, nothing short of death would stop him from carrying out his plans. He is a very devout Methodist, and a difference arose between him and some of the members of the church, as to church management. "Very well," he said, "you run your church to suit you and I will have one and run it to suit myself." He built a church at a cost of \$15,000, placed a fine pipe organ in it, and then he was lacking an organist. Hearing of a German professor, who was playing in a church down at St. John, he went to see him, and asked him how much of a salary he was getting. "Six hundred dollars," said the musician. "Come up to Marysville and play in my church, and I'll give you twelve hundred," said Gibson. He went, and for three or four years was the organist in Mr. Gibson's church; but doing something that lead his employer to think he was getting "too big for his boots," he was discharged as quickly as he had been employed. The old lumberman has a soft place in his heart for music; he has a piano and pipe organ in his house, but does not play. It is said that about the nearest route to the old man's soul is through the channel of music. Marysville, a few miles above Fredericton, is Mr. Gibson's town. It was built by him and is run by him. The place has about 2,000 inhabitants, mostly employed in the Gibson mills and factories.

**ALBANY, N.Y.**

**ALBANY, N. Y., Jan. 2.**—There is not much stir among lumbermen here at present. They are taking things easy. Trade is dull, though indications point to at least a fair trade later in the year.

| MINE.                           |           |
|---------------------------------|-----------|
| 1/2 in. and up, good.....       | \$56 \$60 |
| Fourths.....                    | 58        |
| Selects.....                    | 50        |
| Pickings.....                   | 45        |
| 3/4 to 4 in. good.....          | 52 55     |
| Fourths.....                    | 47 50     |
| Selects.....                    | 42 45     |
| Pickings.....                   | 37 40     |
| in. good.....                   | 52 55     |
| Fourths.....                    | 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     |

**SAGINAW, MICH.**

**SAGINAW, Mich., Jan. 2.**—It is useless to say trade is good, because it is not. Lumbermen are quietly resting and taking note of tariff affairs and anything else that is likely to affect the business of the future.

| FINISHING LUMBER—ROUGH.    |       |
|----------------------------|-------|
| Upper, 1, 1 1/2 and 2..... | 45 00 |
| 2 in.....                  | 46 00 |
| Selects, 2 in.....         | 40 00 |
| 1 1/2 and 2.....           | 41 00 |
| 2 in.....                  | 41 00 |

| SIDING.              |       |
|----------------------|-------|
| Clear, 1/2 in.....   | 24 00 |
| 3/4 in.....          | 48 00 |
| Selects, 3/4 in..... | 21 00 |
| 3/4 in.....          | 40 00 |

| TIMBER, JOIST AND SCANTLING.   |       |
|--|-------|
| 24 to 20 ft., 12, 14 and 16 ft.....  | 12 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 |
| XXX Saginaw.....       | 3 40 |
| XX climax.....         | 2 25 |
| 8 in. 4 1/2 c. b.....  | 1 25 |

| LATH.                             |      |
|-----------------------------------|------|
| 1/2 in. No. 1, white pine.....    | 2 25 |
| Lath, No. 2, W. pine, Norway..... | 1 65 |

**NEW YORK CITY.**

**NEW YORK, Jan. 2.**—Only dullness can be written of the lumber market here. The year just closed was full of discouragements, and its effects are being carried to some extent into 1894. Still the trade are hopeful that the new year will throw off the shadow ere long.

| WHITE PINE—WESTERN GRADES.  |         |
|-----------------------------|---------|
| Upper, 1 in.....            | \$44 00 |
| 1 1/2, 2 and 2 1/2 in.....  | 46 00   |
| 3 and 4 in.....             | 55 00   |
| elect, 1 in.....            | 40 00   |
| 1 1/2 in. all wide.....     | 41 00   |
| 1 1/2, 2 and 2 1/2 in.....  | 43 00   |
| 2 and 4 in.....             | 52 00   |
| ine common, 1 in.....       | 36 00   |
| 2 1/2, 2 1/4 and 2 in.....  | 38 00   |
| 3 and 4 in.....             | 46 00   |
| new No. 1, 1 in. No. 1..... | 28 00   |
| new No. 2.....              | 21 00   |
| new No. 3.....              | 29 00   |
| new No. 4.....              | 24 00   |
| new No. 5.....              | 20 00   |
| new No. 6.....              | 20 00   |
| new No. 7.....              | 20 00   |
| new No. 8.....              | 17 00   |

THE MATTER-OF-FACT VIEW.

THE Boston Manufacturers' Gazette advances some very practical views touching the question of forest management, taking the middle ground between the sentimental and the material question of forest preservation. As our New England contemporary remarks, "the sturdy lumberman who owns one hundred acres of timber growth, and whose business in life is to convert the same into logs and wood, must needs study the practical side of the forestry question. He has but little appreciation of the poetic side of the tree, its foliage and scenic effect. He must be approached, if he is to be converted from the error of his ways, by practical arguments in favor of a more modern, rational and intelligent management of his property."

The lumberman or timber-land owner has the undoubted legal right to destroy every stick of timber in his woods, if he so please, but convince him that it is for his interest to cut only the matured and full-grown timber, and leave the young trees to grow, and he may be converted to the Old-World science of forestry. If all a man's capital be invested in timber lands, and he cannot sell the land, he may be compelled to realize on the stumpage and convert the growth into cash.

The Gazette reasons thus: That while the owner of mature trees in the forest loses money in permitting them to stand after their growth has ceased, the lumberman is also unwise who makes a clean cut of his forest growth, when the young and immature trees left to nature will pay him far greater profits than if destroyed at the same time the mature specimens are marketed.

The lumberman may cut fitly to one hundred ripe trees from an acre and still leave twice as many immature trees growing for future cullings.

In either the æsthetic or the practical view, it is the part of common sense to simultaneously thin out and preserve—to harvest the lumber crop under proper conditions and at the proper times. The lumberman does not always realize the future value of his forest trees. He works for the future alone. Capitalists, and those who are willing and able to wait, should be induced to invest in forest lands from a financial standpoint, with the expectation of large profits in the crop, and with the prospect of advancing values as the supply diminishes.

SAFEGUARDS FOR WORKING ELECTRICIANS.

THE announcements that a means has been invented of rendering any wire charged with electricity instantly dead opens up the question recently discussed

in an English electrical journal of the better protection against accidents from heavy currents of workmen in electric light and power stations. It is suggested, among other improvements, that the insulation resistance of the rubber gloves and boots worn by men engaged in high pressure works should be periodically tested. Rubber gloves and boots are subject to wear and tear, and however good the insulation may be when new, it rapidly deteriorates. It is stated that gutta-percha molded boots, with no irons in them, are more reliable than rubber boots, as they retain their insulating properties much longer. It is suggested that all high pressure bars, switches and fuses shall be boxed in, so that the opening of the box would cut off the current and render it impossible for it to be turned on while the box was open. Again, manufacturers are compelled to securely fence in all belts, wheels and other machinery, and high pressure terminals, bars or switches should be placed under similar restrictions. What is wanted is a simple signal to indicate to the most ignorant workman when a bar, or terminal or switch is charged and so warn him off. Such a device would excellently well supplement the use of the newly-invented electric "cut-off" in increasing the safety of workmen in electric light stations.

DIFFERENT WOODS COMPARED.

IN a lecture recently delivered before the Railway Institute, New South Wales, on the values of different timbers used for railway purposes, it was stated that timber, when perfectly dry, lost about one-third of its weight and shrunk in breadth in drying, as follows:

|             |      |
|-------------|------|
| English Oak | 1-12 |
| Riga fir    | 1-32 |
| Dantzie     | 1-38 |
| Elm         | 1-24 |
| Yellow pine | 1-38 |
| Pitch pine  | 1-40 |

In the comparisons, English oak was taken as the standard of measure of the qualities of strength, stiffness, and toughness, and the following table presented as a result of the experiments:

| Variety.        | W't cu. ft.   | Strength. | Stiffness. | Toughness. |
|-----------------|---------------|-----------|------------|------------|
| British oak     | 45 to 58 lbs. | 100       | 100        | 100        |
| Baltic Riga oak | 43 to 54 lbs. | 108       | 93         | 125        |
| American oak    | 37 to 47 lbs. | 86        | 114        | 117        |
| Dantzie Oak     | 42 to 53 lbs. | 107       | 117        | 99         |
| Elm             | 35 to 46 lbs. | 32        | 78         | 86         |
| Pine or fir     | 26 to 42 lbs. | 80        | 114        | 58         |
| Poplar          | 33 lbs.       | 86        | 66         | 112        |
| Mahogany        | 35 to 53 lbs. | 96        | 93         | 99         |
| Tamarac         | 32 to 40 lbs. | 102       | 80         | 130        |
| Walnut          | 50 lbs.       | 90        | 70         | 110        |

WITHIN the Brule river woods, Wis., are located eight large camps, and the output of logs is expected to be the largest on record.

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,

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Send us your address and we will quote the market from time to time.

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WHOLESALE GROCERS - TORONTO, ONT.

**LUMBER SEASON AT TONAWANDA.**

THE Herald, of Tonawanda, N.Y., which is credited with presenting every year a very correct summing up of the trade of that important lumber centre, makes the following statement of the business for the year now closed: "The falling off in the volume of receipts of lumber and forest products this year is attributable partly to local causes, such as the labor strike, which diverted to other ports many cargoes that would otherwise have been handled here, and partly to the decline in the forwarding business with Albany, which has hitherto been an important factor in swelling its aggregations. Indeed, the ratio of decrease is in exact proportion to the lots of stock for re-shipment to that particular point. The demonstration is obtained by comparing the custom house reports on both sides of the creek with those of last year. The receipts in the Niagara district vary but 1,500,000 feet, while those in the district show a discrepancy of over 66,000,000 feet. The amount of lumber delivered and handled in this port for actual trade purposes is therefore practically as large as last year, which was considered an unusually active and profitable one. This is owing to the encouraging in the face of more or less supposable adversity, and is convincing evidence of the stability of the white pine trade, for which Tonawanda is the head centre of the entire eastern market. It also speaks well for future prospects, as prices have retained a firmness through it all of which few other commodities can boast.

"The receipts of lumber at this port from all sources, lake and rail, during the past 12 months, will aggregate 460,605,000 feet. This is 66,000,000 feet less than in 1892.

**RECEIPTS FOR A SERIES OF YEARS.**

|      | LUMBER.     | SHINGLES.  | LATH.      |
|------|-------------|------------|------------|
| 1873 | 104,909,000 | 1,112,000  | 1,258,000  |
| 1874 | 144,754,000 | 1,822,000  | 1,565,000  |
| 1875 | 155,384,505 | 13,028,000 | 6,559,300  |
| 1876 | 207,723,327 | 18,972,500 | 6,137,700  |
| 1877 | 231,867,000 | 23,249,400 | 5,127,000  |
| 1878 | 266,955,122 | 27,435,600 | 3,699,300  |
| 1879 | 250,629,043 | 29,172,000 | 5,606,000  |
| 1880 | 323,370,814 | 22,470,000 | 1,212,000  |
| 1881 | 415,070,413 | 24,471,000 | 2,272,000  |
| 1882 | 433,241,000 | 38,312,000 | 410,000    |
| 1883 | 358,872,813 | 55,317,000 | 6,031,500  |
| 1884 | 491,268,273 | 66,185,000 | 16,307,000 |
| 1885 | 495,631,000 | 52,004,000 | 7,652,000  |
| 1886 | 505,425,400 | 52,825,000 | 17,226,000 |
| 1887 | 504,237,000 | 53,435,000 | 4,006,000  |
| 1888 | 569,322,850 | 64,973,000 | 16,617,000 |
| 1889 | 676,017,200 | 68,712,000 | 11,563,000 |
| 1890 | 718,550,900 | 52,272,300 | 13,039,600 |
| 1891 | 504,512,000 | 52,451,000 | 6,200,000  |
| 1892 | 496,005,000 | 42,809,300 | 6,152,215  |
| 1893 | 430,749,000 | 35,757,499 | 12,292,600 |

"The receipts of lumber by rail foot up 356,000 feet, of which the New York, Lake Erie & Western brought in 12,480,000 feet, the New York Central & Hudson River 161,000 feet, and the West Shore and High Valley 715,000 feet."

Duties collected on foreign lumber amount to \$8,048.59.

A GENERAL dealer and wood merchant of Hudson, Que., Albert Vipond, who had uncles at Vars and Wendover, Ont., is in emigrated shape, owing to his wide-spread condition, and has been interviewing Montreal creditors with the view of getting a compromise at the rate of 60 per cent. secured. Liabilities foot up to about \$20,000 direct, and \$5,000 indirect. He has a nominal surplus, but of very unrealizable character.

**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 "Basswood," 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.

**WANTED SITUATION**

**AS BAND SAW FILER, NINE YEARS' EXPERIENCE;** also thoroughly practical on Rotarys. Steady and temperate; good references. Best offer in December for next season and earliest to work, gets me.—**H. HOWE,** South Boardman, Mich.

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About three miles of 25 lb. T-Rail; 12 Logging Cars complete, and a Shay Locomotive

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1 Baldwin, 3-foot gauge, 18-ton Locomotive and Tender, in good order.  
21 3-wheel 3-foot gauge Logging Cars, in good order.  
Photographs, prices and full description mailed on application.

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From 5 to 6 Million Feet of First-class

**VIRGIN WHITE PINE SAW LOGS**

**THESE LOGS ARE THE FIRST CUT FROM** new timber limits; choice quality; are cut principally 16 feet long, and average from 3 to 6 logs per 1,000 feet, and can be delivered in the Georgian Bay by the 1st of June, 1894.

For particulars apply to **J. D. SHIER,** Bracebridge.

**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.

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**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.

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One 20-year Survivorship Distribution Policy embraces all the newest features, and is the best form of Protection and Investment money can buy. It has no equal. Guaranteed values, attractive options and liberal conditions.

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Our Annuity Endowment Policy ensures a certain annual income to yourself during 20 years after maturity of the Policy or to your family at earlier death; and the Annuity Life Policy guarantee a sure income to your family during 20 years after your death; first payment immediate. The rates are lower than on ordinary plans.

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(Centres of the vast lumber interests of Michigan)  
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AND  
**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 much 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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Communications confidential. References given.

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OF THE  
**STEAM BOILER AND PLATE GLASS INSURANCE COMPANY**

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Do you know what pressure your Boilers can safely stand  
Is your Steam Gauge registering the correct pressure  
Are your Water Gauges free and in good working order  
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DO not trust to luck; the unexpected generally happens. Avoid the calamity of an explosion. Protect life and property by taking out one of our Inspection and Insurance Policies.

**REAMER LUMBER CO. LTD.**

WHOLESALE DEALERS IN

**WHITE PINE**

AND

**HARDWOODS**

41 Park Row New York

**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.             | Midland                                     | 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 | 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.   |  |
| 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.                                   | 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                                  | Reath, 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                                   | Lumber, Wholesale and Retail.   | 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.                | Buckingham                                  | Ross Bros.  | 2 Sawmills, Pine, Spruce, Hardwoods   | Circular, Gang and Band, 150m                            |
| Toronto                         | Toronto                                     | DeLaplante & Bowden   | Pine and Hardwood Lumber, Whol. and Retail.                                     |  |
| Montreal, Que.                  | Montreal                                    | Dufresne, 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.  | 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.**

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**Charcoal Iron Chilled RAILROAD WHEELS**

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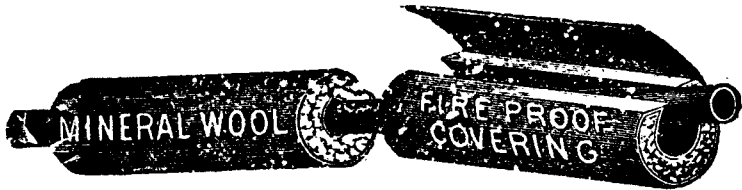
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If you want to save fuel

“ “ “ dry steam at long distance

“ “ “ to prevent condensation

“ “ “ cold water pipes from dripping

“ “ “ “ “ freezing

USE MINERAL WOOL SECTIONAL COVERING

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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That isn't much money, is it?

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?

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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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