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# THE CANADIAN LUMBERMAN

WOODWORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

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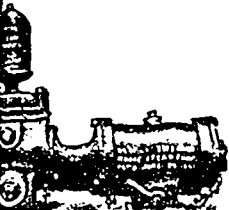
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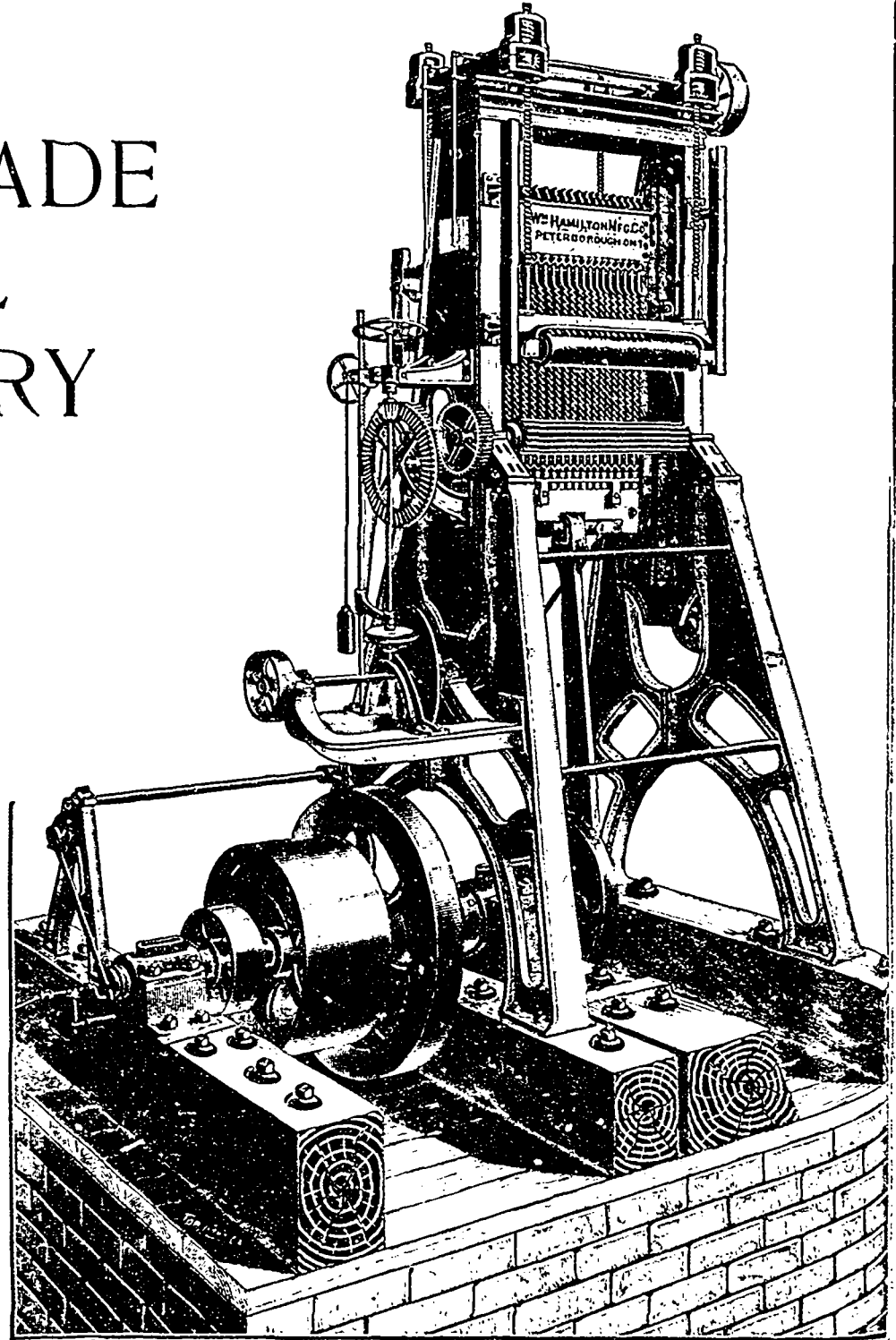
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## MR. W. MALCOLM MACKAY.

Is the commercial history of Canada there are few persons who have taken a more prominent part than the subject of this sketch, Mr. W. Malcolm Mackay, of St. John, N. B., of whom we take pleasure in presenting a portrait taken a short time ago, and which is, we believe, the first ever given to the public. Though one of the foremost of our continental shippers, handling as he has done, with ever-increasing success, a business which has been running into the millions, so conservative and unpresuming are his proceedings, although far-reaching in their power, that the journalistic world usually hears but little of the extensive trade which he carries on.

Mr. Mackay but personates the unpretentious enterprise of the nation he represents, having been born in Lancashire, England, on October 27th, 1851. He is a son of the late Hugh Mackay, who did business before him of a like nature in Quebec and the Maritime provinces, and who at one time lived in St. John, having a house on Dorchester street. Hugh Mackay was born in 1800 in Pictou, N. S. His father, Colin Mackay, was one of the pioneer settlers of that section, having emigrated from Stirlingshire, Scotland, in 1783, and settled on East River, Pictou, N. S. He was married to a lady of English descent, a Miss Mary Davis, one of an old and representative family. He died in 1863, leaving several sons and daughters.

Malcolm Mackay, the subject of our sketch, was sent to Liverpool College, where he studied for six years, at the time when the Rev. Geo. Butler, M. A., was in authority there. His course being completed in 1868, he entered the offices of his uncles, A. F. & D. Mackay, in Liverpool, who have stood among the most prominent of lumber importers. Having served with them for five years, he came out to Bangor, Maine, as their representative.

In the year 1875 he removed to St. John, N. B., and entered into business with his brother, Jas. Mackay, and shortly afterwards launched out on his own account. His policy was to ship for the lumber operators, having their stock as security in his operations, and the absence of speculation accounts in a great measure for the firm and steady increase of his business. He is now represented in England by his brother, Campbell Mackay.

Mr. Mackay's offices are in the Reed building, where they have been located for twenty-two years, and from the windows one looks directly over the harbor where lie the many vessels which he charts, to the number of two hundred in a season.

In 1886 Mr. Mackay was married to Miss Susan McMillan, the eldest daughter of Mr. John McMillan, a prominent publisher of St. John. They have now a family of five sons, and live in

one of the handsomest residences in the city, situated on Orange street. They have also a beautiful summer home in Rothsay, just outside the city. The family are numbered in the congregation of the "Stone" Church of England.

No matter how business varies, Mr. Mackay has ever been known to be of a calm and even temperament. Recognizing the advantages of giving satisfaction to his customers, he has experienced little difficulty in holding his trade.

Of his lumber operations, it may be said that for years Mr. Mackay has been one of the most extensive shippers of lumber in Canada, handling



MR. W. MALCOLM MACKAY.

nearly one-third of the export from the provinces of New Brunswick and Nova Scotia. By his achievements this year, however, he becomes the largest lumber shipper in the world, having handled over three hundred million feet. His shipments are confined largely to the British markets, the stock being distributed through his Liverpool agents, Messrs. A. F. & D. Mackay.

## BELT DRESSINGS.

THE saving of power, belt leather, etc., that follows the use of a good belt dressing on drive or race belts of spinning mules and other machinery, is of considerable consequence to any manufacturer. In order to detect a good from a poor belt dressing, so far as frictional properties are concerned, an apparatus can be used with benefit. It consists of the upright stand, in which a pulley is arranged to turn in a bearing.

A piece of two or three-inch belting should be secured to the floor and the other end to lever. One end of the lever is studded and the other end held down by a bolt. The pulley may be turned from the main shaft of the mill by putting another pulley on the shaft with the second pulley, and

belting the former to a pulley on the mill shaft. The dressing compound to be tested can be applied between the pulley and the belting, and the affair started running. The proportion of increased friction obtained by using the belt dressing may be figured out according to the tables in any engineer's hand-book, using as a basis the proportion of additional friction which has been brought to bear upon the belt as a result of drawing down the lever by means of the bolt. —Boston Commercial Bulletin.

## NEW BRUNSWICK TIMBER RESOURCES.

HON. Mr. Tweedie, provincial secretary for New Brunswick, is authority for the statement that, owing to the drop in the spruce market and lack of ships to carry the products of the forest out of the country, there will be held over in that province this winter 100,000,000 feet of lumber. Mr. Tweedie was at one time surveyor-general, and is, in consequence, perfectly familiar with everything connected with the lumber industry. He declares that the province has 7,000,000 acres of timber land, and although lumbering is most extensively carried on, there are yet no less than 2,000,000 acres which are not under lease. This land can be cut over every seven years, and it would therefore seem that fire is the only thing that can ever bring New Brunswick's wonderful timber supply to an end. Consequently it is only natural to suppose that the Government of the province will take every possible means to protect and husband this great source of wealth and general prosperity.

The provincial secretary states that in 1893 the New Brunswick government could have sold the entire timber limits of the province for a sum ranging from \$10,000,000 to \$15,000,000, and thus wiped out the provincial debt and provided a comfortable revenue for all time to come. However, the executive decided that the wholesale disposal of such a magnificent asset as the forests of New Brunswick would be an unwise policy and detrimental to the best interests of the province. He explains that had such a policy been carried out, the timber would have fallen into the hands of monopolists, who, only cutting to suit their own purposes, would have, no doubt, lessened the output and deprived thousands of people from earning a livelihood. As it is at present, under the twenty-five years' lease system, the lessee is obliged to cut so much every year, and thus the benefit which thousands enjoy is steady and continuous.

The Robertson Raft Company has been organized in San Francisco with the following as officers: J. F. Kennedy, president; J. A. Hooper, vice-president; J. W. Stewart, secretary, with Messrs. Jackson, Robertson & Holmes as the board of directors. After years of trial the plan of coast rafting as perfected by Mr. Robertson has gained a permanent footing, and the above company has been organized to carry on the work.

## CORRESPONDENCE

Letters are invited from our readers on matters of practical and timely interest to the lumber trade. To secure insertion all communications must be accompanied with name and address of writer, not necessarily for publication. The publisher will not hold himself responsible for opinions of correspondents.

## CANADIAN WEST INDIA TRADE.

To the Editor of the CANADA LUMBERMAN.

SIR,—I have not as yet had the pleasure of reading the pamphlet referred to in the November issue of your valued journal, as compiled by Mr. J. A. Chipman, of Halifax, Nova Scotia, entitled "Canadian West India Trade," but from your comments thereon I am pleased to observe that a resident of one of the Maritime provinces has the courage to direct the attention of our people in Ontario to the fact that our province, contributing the largest proportion of the subsidy to the miserable, inadequate, irregular steamship service, operating as between Canada and the West Indies, derives little or no benefit from such connection.

The annual subsidy of \$95,000 was obtained with the distinct understanding that Canada was to be furnished with a first-class fortnightly service from St. John and Halifax to Demerara and Jamaica, touching at intermediate ports; this was some ten years ago.

Instead of this frequent and regular service, so stipulated and promised, the company have employed occasional tramp steamers, such as the "Portia," or whatever others might be available when a sufficient cargo had been secured, and Western Canada, notwithstanding the prominent position we rightly occupy in the Confederation, and paying the large proportion of the subsidy, derives little or no benefit from it.

The lumber interest is but a fair indication of the foregoing, as, for instance, in 1896 Nova Scotia alone exported forest products to the value of \$86,053, whereas the figures for Ontario are given as \$204—and with British Guiana, the Danish, French and Dutch West Indies, St. Domingo and Honduras, it is equally unsatisfactory.

Apparently the service is maintained and subsidized in the direct interest of the Maritime provinces, and Ontario is called upon to provide for their assistance in this as in other terminal facilities, and at the same time, to secure an efficient and regular mail service, contribute to the steamship service via New York.

As Mr. Chipman points out, in the manufactures of wood alone, of which the West Indies purchase annually one and a quarter million dollars' worth, the United States furnish \$700,000 or \$800,000 worth, and Nova Scotia and New Brunswick the balance.

The fact that the Americans furnish this large proportion of forest products, the bulk of which doubtless originally comes from Canada, is attributable without a doubt to their efficient and regular service. Many instances are recorded where shipments have been made from Canada to the West Indies via St. John and Halifax, the drafts against same mailed via New York, with the result that the drafts arrived at their destination before the goods were forwarded from the Maritime provinces, such goods being detained awaiting the sailing of our irregular steamers, with the consequence that drafts arrived at the West Indies long before the goods, and were held for a time and then returned unaccepted. Our Ontario people became disgusted with the facilities via our subsidized Maritime steamship line, and refused to execute further orders unless they received instructions to ship via New York—consequently Ontario has been contributing three-fifths of this subsidy for years without deriving any benefit therefrom.

Is it any wonder that the United States are importing from Canada and supplying \$700,000 or \$800,000 worth of this million and a quarter in forest products, notwithstanding the professions of the present Federal government in regard to Dominion trade extension?

In every instance Ontario seems to be handicapped as against our outlying provinces, owing to the experiences and resulting apathy of our people, the exorbitant rates of our railways for transporting to such terminal points, and the irregularity of the steamship facilities in the Maritime provinces. If they do ship at all they are compelled to give preference to the shorter rail haul to New York and the frequent regular service, and operate this and other trade in the other British colonies through commercial houses in the United States, and thereby develop a trade for the Americans by swelling their shipments, and

assist them in obtaining a more favorable interchange in the products peculiar to such British colonies.

Mr. Chipman suggests a through line from Montreal in summer, with most favorable and decided possibilities to Quebec and Ontario. It is commendable, and worthy of note, that the C.P.R. are now awakened and are quoting the same export rates to St. John as are current from the same shipping points in Ontario, &c., to New York, and have sent an agent to the West Indies, who has, I understand, already visited Bermuda, St. Thomas, St. Croix, St. Kitts, Antigua, Dominica, St. Lucia, Barbadoes, Trinidad and Demerara, and we may hope for satisfactory results; but is a railway representative competent to decide and further commercial necessities?

If the favorable disposition of the British West Indies to interchange with Canada has not been entirely absorbed in their unsatisfactory experience with the Pickford & Black steamship lines, there may still be a reasonable possibility of securing at least a portion of this trade, but a reference to the volume of forest products shipped by the United States to the West Indies, of from \$700,000 to \$800,000, should afford food for thought for Ontario people.

Let it be understood and borne in mind that Ontario furnishes three-fifths of the revenue of the Dominion, and that whatever subsidies are supplied Ontario provides an equal proportion of such expenditure, therefore she is entitled to a corresponding benefit in whatever trade interchange may result.

Geographically, Ontario is seriously at the mercy of our railways in the matter of satisfactory rates on shipments to the West Indies and South America, in consequence of the long rail haul to St. John or Halifax. This, as well as the fact that we are committed federally to three-fifths of whatever subsidy is granted by the Dominion government, should be kept prominently before our government.

St. John and Halifax are continually at sword's point when any assistance or recognition is afforded by the government to either New Brunswick or Nova Scotia, in which they do not equally participate. To wit: I observe to-day in the telegraphic despatches that "the people of St. John, N.B., are up in arms over the terms of the new arrangement made between the Federal government and the Beaver steamship line, whereby Halifax is to be made a port of call during the winter service," &c.

It is also to be observed that the deputation from St. John, on their way to Ottawa, called upon Mr. Shaughnessy, Vice-President of the C.P.R., in Montreal, with an endeavor to have St. John's interests more carefully considered. This rivalry and continuous struggle for supremacy, as between the Maritime provinces, would to a very material extent be obviated by the adoption of the valuable suggestions of Mr. Chipman, of Halifax, for a fortnightly service from Montreal and Quebec, with the very valuable intermediate service in the route, from which such steamers would unquestionably profit. By this means only can Ontario ever hope to profitably participate in this West India trade; otherwise New York, with the comparatively short rail haul, is our only hope.

Nova Scotia alone exported to the British West Indies, including British Guiana, about two million dollars worth of goods in 1895, and to all the West Indies \$3,449,585; consequently their efforts and anxiety.

We have Boards of Trade (so-called) continually languishing, at banquets and other similar occasions, for opportunities for trade extension, and there is an intense rivalry manifested by certain of our business men in railing forth what might or should be done if such and such were only at their command. As far as Ontario is concerned it ends in such wind explosions, and we are left, Micawber-like, waiting for another occasion to turn up for windy efforts, and in the interim while at the inactivity of the government, the irregular service, etc., etc., without exercising effort or influence to remedy the condition.

What we require is that our business men in Ontario, as representing three-fifths of the subsidal assistance, get right down to a practical realization of this matter, and devise some practical, intelligent basis upon which to secure proper consideration, and demand facilities and rates in the interest of Ontario that will admit of some return for the large subsidy which we have had to contribute for years in the direct and only interest of the Maritime provinces.

The proportion of \$204 in Ontario against \$86,053 to Nova Scotia in lumber interests, is significant of the pro-

portion Ontario derives in the total of the Canadian trade to all of the West Indies.

Deputations from Nova Scotia and New Brunswick have been chasing one another to Ottawa in this matter long enough. Now, let Ontario and Quebec look to it that during this opportune season opportunity is given them to share in this trade proportional to the subsidy paid by each province, or else favorably consider facilities elsewhere.

Mr. Chipman's effort should commend itself to every thinking Canadian engaged in manufacture and export to Ontario. If Ontario had but a percentage of the indomitable and irrepressible spirit which the Maritime provinces possess for asserting their position and value to the Dominion, and their rights, she would be differently treated and more equitably regarded than at present. The effort and co-operation of our lumbermen are essentially necessary for this purpose. Let unanimity and combined purpose characterize every effort put forth, and Ontario, under her three-fifths subsidy, will obtain her proper share in this trade.

Insist upon a first-class line of steamships; it is not merely a Nova Scotia or New Brunswick venture, but a Dominion interest, and Ontario wants her proper share and must have it.

"PROGRESS."

## CANADA FOR THE CANADIANS.

To the Editor of the CANADA LUMBERMAN:

SIR,—What are our governments and people about, allow Scandinavia and other foreign countries to monopolize the British market in their demand for wood pulp, without putting forth some practical, intelligent effort to secure at least a reasonable portion of this trade to our resourceful Dominion? I observe in the November issue of your valuable journal, THE CANADA LUMBERMAN, that Norway and Sweden furnished Great Britain with 300,000 tons of pulp wood in 1896, valued at £1,485,761, or seven million four hundred thousand dollars' worth in round figures, or 88 per cent. of the total value imported by the mother country, viz., £1,684,647, and that the balance of 12 per cent. of Great Britain's requirements was made up of imports from Russia, Denmark, Germany, Holland, Belgium, Portugal, Italy, Austria, the United States and Canada—our Canadian portion being but 2,714 tons, the value being £9,370.

Can the lumbermen of Canada explain why this is? Is it through want of intelligent effort, or is it that the pulp wood of Norway and Sweden is considered in Great Britain as superior to that of our country?

American manufacturers, as you state, admit that they get more pulp per cord from Canadian wood than from the wood of any other country. If our wood pulp is superior in quality as recognized, and more profitable a result than any other, why this 88 per cent. from Scandinavia to Great Britain? Is it that our freight rates are against us? If so, with such preferable material as we are acknowledged to have, and with the possibility of capturing such a volume of trade in this particular interest, with practical Imperial federation and trade within the British Empire as the popular commercial theme of the jubilee year, surely it is worthy of the closest and most practical consideration on the part of our railway and steamship companies.

Australia, I also observe, has sent forward orders for pulp for their paper mills, and anxiety is announced by a prominent newspaper firm to meet a Canadian representative of one of our paper mills. Is it not in order to inquire what is Commissioner Larke doing that this decided opportunity is not looked after?

The federation of the British Empire and the proposal to trade within the Empire should materially assist the Dominion in the development of this department—that is, if Imperial federation means anything but lip loyalty. But it occurs to me that the overtures and efforts to effect such a federation and trade interchange as between the colonies and the mother country, has only so far served to awaken our American neighbors to a practical realization of the possible commercial results of such federation. In this particular interest, note the proposed amalgamation of the big paper and pulp mills of the United States with a combined capital of some twenty-two million dollars, so as to protect and strengthen their endeavors for the world's trade. Canadians have, or should have, with the subsidal assistance provided by our governments, the best steamship and other facilities, and the most favorable rates for conveniencing trade with the mother country.

the sister colonies, Japan, China, West Indies and other sections. Our banking facilities are, with the keen competition and the desire for business, available and applicable for all essential purposes. The question, therefore, is: Are our people lacking in the necessary enterprise, or are our rail and steamship rates prohibitory?

I have very carefully read the report of the meeting of Ontario lumbermen, and I am astonished at the want of unanimity characterizing the same, when matters of such vital importance to their interests are now so prominently engaging the attention of our people. Our American neighbors set forth an exemplary and striking example, inasmuch that when any question arises in their country indicating a necessity for general action in the protection of American interests in any department, they are at once unanimous; whereas in Canada, if momentous questions arise involving general interest, it is as a house divided against itself, section against section, province against province, and while we are wrangling, our astute neighbors slip in, and either legislate or combine for protection and American aggrandizement to our detriment.

Again, we have this export log duty, a very serious feature, before us to-day. Does it not occur to those who are in authority, and to all directly or indirectly interested, that while we are wrangling and differing, where active effort and unanimity are essentially necessary, that our American neighbors are actively securing the most valuable concessions and privileges from our governments, sending in their own labor to cut, and actually supplying such alien labor with their necessities from the States, and enacting alien labor laws to the exclusion of Canadians from their country, and also shipping our logs to their own mills in the States, and manufacturing from our Canadian raw material to supply the very markets which Canada should, and could, practically control, or at least largely supply. The government may be very carefully considering, as the Hon. J. M. Gibson puts it, but at the same time note the significance of the fact that special notice is taken of the deputation of American owners of limits pressing their views upon our own Ontario government. We may well ask for an explanation from this same Ontario government. Reverse the position and imagine, if possible, such a Canadian overture to the United States.

It appears from Mr. Bertram's resolution and remarks supporting the same that it was considered necessary to restrict the exportation of saw logs, and the Ontario government was requested to so amend the pine timber regulations that all pine timber cut under license in the province of Ontario SHALL BE MANUFACTURED IN CANADA. The government, I observe, informed the deputation that the government entertained the opinion "that during the currency of the existing licenses such action as was proposed by the resolution of the meeting of Aug. 19th could not well be taken," and also "that the government was very carefully considering what policy should be adopted with reference to the logs cut after the expiration of the existing licenses, and it was hoped that in a short time the public would be made aware of the course which may be determined upon." It seems from what Mr. Bertram says, that six days after the Michigan gentlemen and Mr. Charlton were here (Sept. 7th), that the Americans and their appliances were into the bush, so that they (the Americans) seem to have received from our Ontario government that which is almost invariably denied to Ontario people, viz., a prompt, intelligent, definite answer. Mr. Bertram in a very marked and practical manner recognized what is due to the Americans who had invested in Canadian limits, but very properly directs attention at the same time to the duty owing to Canadians interested and to the Dominion at large.

The crisis is, indeed, a grave one, and the results of to-day, necessitating Canadian protection, are but the outcome of the conditions created by the Americans themselves, and an appeal was made to the Ottawa district and other sections for joint action in the interest of the Georgian Bay district and Western Ontario; so that the sawing of our lumber should not be taken from Ontario and carried on in Michigan, and be the means in the near future of enforcing upon those who succeed the present employers to go to Michigan for employment and business.

Allow no logs to be exported from Canada at all, and have inserted in all licenses granted hereafter, in the general interest of our country, that all timber on the crown lands of Ontario shall be sawn, made into square timber, or otherwise manufactured, by Canadian labor in Canada.

If the government, as Mr. Beck stated, has the power to raise the dues on all pine timber on crown lands without giving notice, they have assuredly the power to enact the foregoing, and thereby, at least, put us on equal footing with the Michigan lumbermen.

The present season, with the elections at hand, affords a most favorable—in fact, a signal—opportunity for pressing for this important condition, and to have the Dominion government amend the Act so that the export duty on our logs going to the United States would be equivalent to the duty charged on our lumber. They (the Americans) want our lumber and must have it; therefore, take advantage of the opportunity and protect our Canadian interests. It may disturb to an extent our relations with the Americans for a time, but with opportunities such as we now have for developing new industries in pulp manufacture, it will afford an impetus to the disposition of English capitalists to invest their surplus capital in Canada.

The Paper Trade Review, of London, England, says: "There are at present several Canadian schemes being projected with British capital, and if such a step was advisable, British papermakers would be prepared to form themselves into a combination and erect extensive chemical and mechanical pulp works in Canada or elsewhere from whence to draw their supplies. British papermakers and financiers are following the example set by American manufacturers in acquiring timber lands in Canada." This should be practical evidence that we are not entirely dependent on our American neighbors, but, to the contrary, that a plethora of capital can be obtained to develop such new industries in Canada and provide employment for thousands of our men and boys.

Mr. Hammond, of Algoma, informs us that "thirteen million five hundred thousand dollars' worth of logs and timber were exported last year from Canada to the United States, and a very large proportion of this was logs, which were towed to the United States mills, and an enormous business done on that side in slabs from tree tops never scaled and sold as fuel. Much of the product manufactured there was sent back here free, and our mills had, of course, to compete. This is manifestly unfair to our farmers, laborers, millmen, traders, manufacturers, and every industry in this country, BUT IT IS A SOFT SNAP FOR THE CITIZENS OF THE UNITED STATES. By compelling and encouraging home manufacture an impetus would be given to our farmers, settlement would be promoted, the manufacturers would profit, and trade generally would be improved." Surely this should be suggestive.

With the improved condition of affairs in Manitoba and the Northwest, and the abundant crops of last year, and good prices, there is such a demand for lumber that the mills are taxed to their utmost capacity. Farmers are prosperous, and it means an active demand and decided opportunities to the lumber manufacturers of north-western Ontario. Georgian Bay and Algoma should be able to satisfactorily compete for this trade as against Duluth. Here again is the opportunity for the C. P. R. to assert itself, in favorable rates, as against the 500 miles of transportation from Duluth; let them reduce their 18 cents or 20 cents' rate from Port Arthur to a rate similar to a same distance rate in eastern Ontario, and this immense trade is at the command of Ontario, as manufacturers and shippers in Midland, Parry Sound, Penetang, Byng Inlet, Spanish River, French River, Thessalon, and all other millers in the district would capture this trade from Minnesota. It rests with the C. P. R.

Mr. Waldie, in stating that if the Ontario government took no action a very great injustice would be perpetrated on the lumber interests of the Georgian Bay, is eminently clear upon the point, particularly when he set forth the almost startling fact that they have facilities in the Georgian Bay district for taking out 400,000,000 feet of logs, but that out of that 400,000,000 feet, under existing circumstances, not 100,000,000 feet will be manufactured in Canada, and half the mills on the Georgian Bay will be standing idle, and that the wealthy and old established firm of Cook Bros., with their wealth, extensive limits, ample means and mills, have closed their mills and sold their logs to Michigan. His statement that he did not want to see the sons of our prominent lumbermen compelled to follow the logs to Michigan and become residents there was timely. This is, and will be, the result if our governments do not awaken to the serious consequences that their inactivity and want of comprehensive action will undoubtedly lead up to.

Lumbermen never had a more desirable opportunity for presenting their grievances to the governments, both

federal and provincial, than they have at present, the elections being so close at hand and a marked desire asserting itself for a change of policy in the general interest of the province and Dominion. With the wealth and influence of the lumber interests in Canada, and the co-operation of manufacturers, storekeepers, farmers and our financial institutions, coupled with our railways and steamships, and the many other interests in different districts almost dependent on the lumber trade of Canada, there should be a collective force with sufficient weight to compel an earnest, complete, and intelligent consideration and necessary protective action. Let those interested have but the courage of their convictions and make public their desires, and the voting element of the Dominion will undoubtedly endorse and assist them, and I feel we can rely on the valued columns of the CANADA LUMBERMAN to assist us also.

"CANADA FIRST."

### THE LOG SCALING QUESTION.

To the Editor of the CANADA LUMBERMAN.

SIR,—My attention having been recently called to a letter in your issue of April, 1897, entitled "Different Results in Scaling Logs," and signed "Lumberman," I ask permission to reply thereto, although I am somewhat reluctant in going into the public press in connection with my duties, and would not have troubled you on this occasion if "Lumberman" had stated all the facts in connection with this important matter. But such is not the case, as he seeks to leave the impression that he has been harshly dealt with by the officers of the Crown Lands Department, "who either do not understand their business or wilfully overmeasured the logs in question, in order to build up a reputation for themselves at his expense." Consequently, I am compelled, in justice to the Crown Lands Department, scalers, general public, myself and fellow ranger, to request the publication of this letter.

"Lumberman" states that he purchased 18,878 pieces saw logs from another firm, but he omits to state that he purchased these logs upon a contract, at a high price, which called for a choice and superior quality of logs, to be scaled by "Lumberman's" scalers; and when the time arrived to inspect the logs on the skids, it was then ascertained that the logs were not equal to what the contract called for. These are the facts as stated by "Lumberman" to the writer. What was the duty of "Lumberman" under these circumstances? Was it not their duty to reject all logs which were not equal to the quality called for by the contract, give an accurate measurement for the logs so accepted, and separate scale of the rejected logs, in order to return the same to the Crown Lands Department for the purpose of paying the Crown dues thereon? But for some reason, unknown to the writer, "Lumberman" and his scalers did not pursue this course, but decided to reject nothing but what they considered worthless logs, and measure the balance in such a manner as would produce results equal to the logs called for by the contract. Having conducted the scaling in this manner, I could not accept a scale on behalf of the Crown Lands Department which scaled out all the coarse lumber.

You will observe, Mr. Editor, when it was proposed to make the returns and pay the Crown dues upon that scale, it was my duty as an officer of the Department to object to the measurement made and insist that the logs be properly measured, in order that a proper and honest return might be made to pay the Crown dues upon. In fact, at the time the re-measurement was being proceeded with, "Lumberman" admitted to the writer that I was justified in recommending a re-measurement of the logs in question, as his scalers had scaled the logs in such a manner as to make them equal to the logs called for by the contract, which was not a fair measurement to the Crown Lands Department, and he distinctly stated that the firm selling the logs should have made a separate scale for the purpose of return to the Crown Lands Department, and upon which the Crown dues should be paid.

"Lumberman" also states that the logs were scaled by a licensed culler. True, but he omits to state that the culler was assisted by an assistant who, on two occasions, failed to pass the necessary cullers' examination, once previous to the scaling of the logs in question and once since that time, and at present he is not in a position to scale logs cut upon the Crown domain, only as an assistant. The returns sworn to by the culler and his assistant set forth that they had scaled 18,145 pieces saw

logs, containing 1,154,862 feet B.M., and 403 culls, and not 18,878 pieces, containing 1,200,810 feet, as stated by "Lumberman," as the culls were not measured. There were also 255 pieces boom timber, containing 35,659 feet B.M., but as "Lumberman" has not taken this into consideration and gives no returns of same, it is needless to discuss this aspect of the case.

There was another scale made of these logs by two competent and practical licensed scalers, who have been scaling logs cut upon the Crown domain on the Ottawa and in other parts of the province during the past 16 years, whose work during those years has never been challenged, and they are looked upon as two of the most competent men on the cullers' staff. Such being the case, I presume it will be interesting to the public to ascertain the result of their labor. These men were employed by the firm who sold the logs, and having no interest whatever in the transaction, were handed a copy of the contract and instructed to scale the logs in accordance with the wording of said contract. They did so, and the results bore me out in recommending a re-measurement of the logs. They scaled 18,353 pieces logs, containing 1,461,420 feet B.M. I would here ask "Lumberman," if he was disposed to be fair to himself, scalers, rangers and all parties interested, why did he not give the result of this scale to the public.

I presume, Mr. Editor, that you understand that it is the system and duty of all cullers to reduce logs for visible defects only. That being the case, it is improper for cullers to reduce for unseen defects, and I desire to draw your attention and the attention of the public to the fact that for logs scaled in the water, as was done by the scalers mentioned, there should be a large reduction made for defects than when scaled on the skids, as the logs are reduced for side defects which are not visible on the skids. Would it not be reasonable to suppose that when these scalers, both being licensed, scaled the logs according to contract, the water scale would be under the bush scale? Yet these scalers find 306,558 ft. B.M. more than the bush scale.

In connection with the scale made by the department I desire to say that the men who did the work are considered competent and practical men, and they measured the logs in such a manner as to ascertain the actual quantity of merchantable lumber the logs would produce, and they found the logs would produce 1,547,731 feet B.M., or 18,516 ft. more than the figures given by "Lumberman" and 302,869 feet more than the bush scale. As to the discrepancy between the ranger's estimate in this particular case and the bush scale, the ranger's estimate of the logs in question was 1,633,050 feet B.M., and not 1,801,215 feet as stated by "Lumberman." In other words, the ranger's estimate was 73,040 feet B.M. over the actual output, and the culler's actual scale on the skids was 405,148 feet below the actual output. I will now leave the public to judge whether the ranger's estimate or the culler's actual measurement was the most accurate. You will also bear in mind that it was not the intention of the department or its officers to collect the crown dues upon the ranger's estimate, as all the department desire is to have the dues paid upon the actual sound lumber the logs would produce.

Not knowing anything in connection with the scale made over the jack ladder, and the manner in which lumber was treated in the mill, I am not in a position to discuss this question, but when "Lumberman" speaks of an over-run of 20 per cent. over Doyle's rule on account of improved methods in manufacturing, he should be fair to himself and the public and state that all lumber is cut  $\frac{1}{8}$  inch thick in order to allow for shrinkage and have the board dress plump inch, which means one board in eight, and which is not considered or allowed in calculations made by Doyle's rule. There are other points in connection with the jobbers who cut the logs which could be discussed, and which would be interesting to the public, but as "Lumberman" has not touched on these points, I will refrain from doing so.

In conclusion, permit me to say I will now drop the matter, and will not be drawn into any further correspondence on the subject, as I understand that the whole matter is to be investigated by the courts, but will leave you, Mr. Editor, and the public, to judge whether myself and fellow ranger has in this case sought to build up a reputation for ourselves at "Lumberman's" expense, or have sought to protect the interests of the Crown Lands Department and the people of this province.

Trusting that I have not taken up too much space in your enterprising journal, I remain,

Yours truly,  
WOOD RANGER.

P. S. Your editorial in the same issue is timely and to the point that there is required in this province some uniform system in regard to grading lumber, as the large quantity of mill culls in this case would indicate. As to the present system of scaling logs in the woods, it is as nearly perfect as it is possible to get it, and I can assure you that there is very little friction between the Crown Lands Department, its officers and the lumbermen, notwithstanding the statements of "Lumberman" in your issue of April last.

#### CARE AND MANAGEMENT OF BAND SAWS.

By the courtesy of Messrs. Henry Disston & Sons, of Philadelphia, Pa., we are permitted to publish the following on the care and management of band saws, which we believe will be found of interest to saw mill men and filers:

It is generally acknowledged that the band saw is, in a great measure, taking the place of the circular saw for log sawing, and the general introduction of them into new mills demonstrates that the experimental stage is passed and that the band saw as an instrument for manufacturing lumber has come to stay.

We receive many letters from band mill owners and operators asking our advice as to the best manner to fit, tension and operate the saws to attain the best results in capacity and quality of the lumber made, and at the same time get the most wear out of the saws. It is impossible to lay down a set of rules to fit all cases, or answer correctly any single one without knowing all the conditions under which the saws are run, but we will give a few of the most important points in reference to the care and management of the band saw, which, if followed out carefully, can not be otherwise than a benefit to those who have neglected any of these points.

We will assume that you have a good modern mill, one from a first-class builder who has learned from experience to so proportion and distribute the metal in his machine that the saw can be strained up to the proper point without springing or distorting any part of the machine and have an ample margin of strength to properly stand the additional strain put on it by vibration. Such

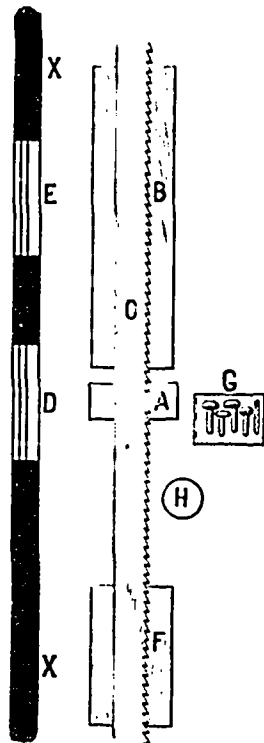


FIG. 1.

(Cut showing proper position of Anvil Levelling Table, Table for hammering and position of operator at work.)



FIG. 2.

a mill is the only one a man can reasonably expect to get highest results from.

Vibration is one of the greatest causes of bad results in

the use of band saws, and, knowing this, particular attention should be given to the wheels and their shafts, the journals and boxes; the wheels must be round and in perfect balance, and the shafts must run free in their boxes, with no lost motion. Sawyers occasionally complain that their saws, which have been doing good work and giving satisfaction, commence to crack and finally break. This fact is not so surprising when we consider the immense tensile strain the saw is subject to whilst running and the immense number of times in a day that the saw is bent and straightened in running over the wheels, all of which eventually causes crystallization of the steel and cracks the saw.

None of the leading band mill builders are making as much crown to their wheels as they were a few years back, and some of them were making flat wheels; each style has its advocates and will give good results when



FIG. 3.

properly handled, but all of our experiments are in favor of flat wheels, both as to capacity of mill and life of saws, though as some of the best mill builders give  $\frac{1}{8}$  of an inch crown in a 10-inch face wheel, it seems a question of education or preference with the operators.

Still, common philosophy shows that the least amount of crown one has in their wheels, the less tension necessary in the saws, which in turn means less hammering and rolling, flatter saws, less kerf, and less tendency to crack.

Perfectly uniform tension is the next important point, for if a saw has fast and loose spots in it, the tendency to crack is largely increased, the fast spot cracking from undue tensile strain and the loose spot from constant buckling of surplus metal.

The tools required for hammering band saws will be a cross-face hammer, a round or dog-head hammer, and a twist-face hammer, each weighing about  $3\frac{1}{2}$  pounds. The anvil should have a flat face and be perfectly true.

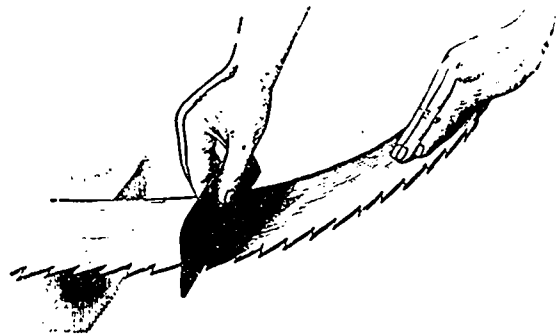


FIG. 4.

Strike light fair blows, using care not to cut or mark the surface of the saw by the hammer, as cracks are apt to start from such marks, particularly when occurring near the edges.

To experiment with, cut a piece three feet long from a worn out or broken band saw, lay it on the anvil, taking your position at H in figure 1. Commencing at the end of the piece furthest from you, place your straight-edge square across the blade, and holding the blade with the left hand cause it to bend or curve, as shown in figure 2. The places drawn to the straight-edge, as in figure 3, are "Fast" and those places that drop from the straight-edge are "Loose." The first object is to make the saw "flat" or stiff, as shown in figure 4, after having knocked down all the lumps. Having located a "fast" place, you will notice that it shows on both sides of the blade similar to the manner in which a lump shows when the saw is lying flat. Remove the "fast" by use of the round hammer, working on both sides of the blade, and trying frequently with the short straight-edge. Be careful at all times to keep the edges true. Now take out the "loose" by use of the same hammer until you have the piece flat or stiff throughout. Then proceed to locate and remove the

"twists," still working from both sides of the blade and using the cross-faced hammer.

Now proceed to open or tension the saw until it shows the required amount of drop from the straight-edge, figure 5, usually about a sixteenth of an inch in a ten-inch saw. The greatest opening should be done in the center of the blade, decreasing gradually to within about an inch and a half from the tooth edge and about an inch from the back edge, varying a little according to the work to be performed. Be careful not to get the saw too open and examine from time to time with the small straight-edge. To insure the saw travelling on the wheels without any lateral motion, the tension must be perfectly uniform throughout the entire blade.

The proper amount of tension varies according to the feed of the mill and crown of the wheel, but  $\frac{1}{8}$  or  $\frac{3}{8}$  of an inch is about the average used. The use of a tension

ing the teeth. Cracks are liable to start from any of these case-hardened spots.

Never let saw come in contact with back guard wheel, as case-hardening is bound to ensue, from which cracks will surely result; in case saw is accidentally forced against the guard and case-hardened, remove the glaze at once by holding a piece of soft emery wheel against back edge while saw is running slowly.

It is essential to have toothed edge of saw tighter than

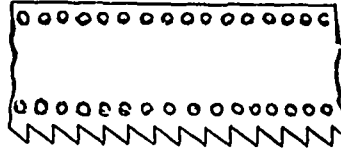


FIG. 7.

any other part, and to accomplish this without materially affecting the uniformity of tension, roll the saw a little longer on the back edge. Let the increased length begin at the point in saw where the greatest tension shows and let the back edge show about  $\frac{3}{8}$  of an inch rounding in every five feet, then tilt upper wheel forward enough to make saw have as strong a pressure on wheel at back edge as at front; this will leave part of saw between wheels with a tight toothed edge without subjecting it to that undue strain brought about by making tooth edge tightest by an all tilt movement.

The guides should be lined with either soft Babbit metal or hard end wood and adjusted as closely to the side of saw as possible without heating the blade by friction against the metal or wood. The side of saw would be in perfect alignment with the track and guides adjusted to saw; under no circumstances should the saw be deflected by guides, but have free but small and equal clearance on both sides.

The tensile strain should be only sufficient to prevent slipping of saw on lower wheel; the highest capacity and

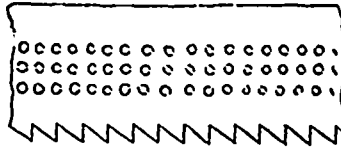


FIG. 8.

best mills now rarely exceed a strain of 5,000 pounds, which is all sufficient if saw and mill are in proper condition, while no amount of strain will make an irregularly tensioned saw or a poorly aligned mill make good lumber, but will instead bring more strain on every part of the mill and cause the saw to crack much sooner. The majority of the large mills are now using the roller or stretcher machine for putting in the tension. The desired effect can be attained in a shorter time and with less injury to the saw than if the tension all be put in by hammer. It is necessary, however, to use the hammer for finishing and regulating after the use of the stretcher.

John Morrison, an employee of the Huntsville Lumber Company, was killed by the stub of a tree falling upon him, breaking his back.

Consult our advertising pages if you are in need of machinery, and mention the CANADA LUMBERMAN when corresponding with advertisers.

Mr. John P. Newman, of Warton, writes THE LUMBERMAN as follows: "Permit me to congratulate you on the excellent report of the recent lumbermen's meeting in Toronto."

The Eustis Mining Co., Eustis, Que., have again commenced sinking in their shaft, and for this purpose have placed an order with the Jenckes Machine Co., of Sherbrooke, for one of their special underground hoists, to be worked by compressed air.

It is estimated that 3,000 to 4,000 cords of pulp wood a day enter into the manufacture of paper in the United States. At the minimum, 3,000 cords, the total for a year would be the enormous amount of 900,000 cords. It is safe to call it 1,000,000. If this wood were piled in one continuous string, it would make a wall four feet wide and four feet high a little over 1,515 miles in length. It can be seen what a prodigious thing the wood pulp industry is, and at what a tremendous rate it is devouring trees, mainly spruce. Yet all this wood is converted into paper, which, after being used, vanishes from sight in a few days, and goes back to dust, out of which element the trees grow.

MICHIGAN LETTER.

[Regular Correspondence of the CANADA LUMBERMAN.]

THE lumber industry of Michigan is experiencing a boom such as has not been realized for many years past, said to be the direct result of the shutting out of Canadian lumber by the two dollar duty. The quantity of lumber shipped from Saginaw in October was more than double that shipped in the same month last year, and Bay City has also been the centre of some heavy transactions. The trade has been hampered somewhat by the inability of shippers to secure cars for moving the stock.

It would appear that Michigan lumbermen anticipate that some action will be taken by the Canadian governments to restrict the export of saw logs. Operations in the woods both in Michigan and on the Georgian Bay were never, perhaps, so active. Men have been engaged to go into the woods in large numbers, and at better wages. It is estimated that in Michigan the production will be fifty per cent. greater than during any winter for the past five years. In view of the increased value of pine stumpage, we can only conclude that this action is caused by a belief that no logs will be permitted to be exported from Canada, and hence there will be a good demand for both lumber and logs. S. O. Fisher, of Bay City, expects to lumber about 20,000,000 feet in the upper peninsula of Michigan and in the Georgian Bay country, and Fisher & Turner will lumber some 30,000,000 feet in Canada, the logs to go to Bay City for sawing.

Saginaw and Bay City lumbermen recently rose in arms against the railway companies, claiming that they were not being dealt with fairly with regard to freight rates. The rate from Bay City and Saginaw to the east is supposed to be eighty-four per cent. of the Chicago rate, but it was claimed that the railways had been giving cut rates to Chicago dealers. At a meeting of lumbermen and representatives of the railway, an agreement was reached, and in future if any cut is given to Chicago a proportionate cut will be accorded to the valley dealers.

A log towing association has been formed at Cheboygan, by Thomas Charlton, of Tonawanda, and Thorstensen Smiths' Sons, of Cheboygan. Three tugs will comprise the fleet.

The A. W. Wright Company, of Saginaw, is shipping a large consignment of lumber to South Africa.

A new hardwood saw mill is being built at Grayling to saw the timber on a tract owned by Frank Buhl, of Grayling, and W. K. Jackson, of Buffalo.

The advance in the price of salt is proving a bonanza for saw mills in the Saginaw Valley with salt block attachments. Over 71,000 barrels were produced in Saginaw and Bay City in September, the advance in price on which amounts to \$24,850.

At this end of the river only the mills of Bliss & Van Auken and the Saginaw Lumber and Salt Company are running. The former have several million feet yet to cut, and the latter company will likely continue operations for some time yet, although they will carry over a considerable stock of logs.

This season logs were rafted from the Georgian Bay to Bay City as follows:

	Feet.
May .. . . . .	9,825,320
June .. . . . .	37,125,034
July .. . . . .	43,342,448
August .. . . . .	22,145,276
September .. . . . .	20,983,472
October .. . . . .	13,209,003

Total.....146,630,853

The east shore of Lake Michigan has ceased to be a lumber producing district. At Luddington one of the great mills, that of the Pere Marquette Lumber Co., has cut its last pine log, and there is but a few million feet of lumber in pile at Luddington compared to the many millions of feet that used to be sawed there. Luddington has joined Muskegon, Whitehall and Grand Rapids in the group of "has-beens" in the lumber manufacturing industry in western Michigan.

SAGINAW, Mich., Nov. 22, 1897.

The Bonanza Nickel Mining Co. of Sudbury, Limited, have placed an order with the Jenckes Machine Co., of Sherbrooke, for a 10-stamp gold mill, complete, with two 6-foot vanners. It is their intention to install this mill immediately.

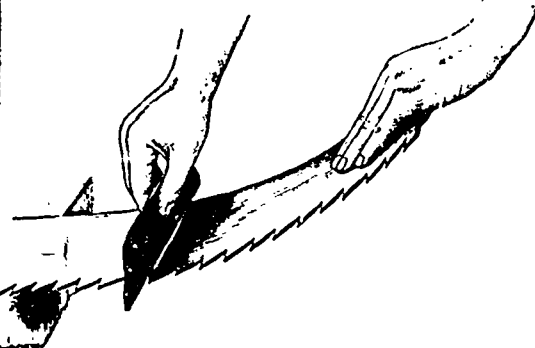


FIG. 5.

gauge (see cut) with one edge curved to the amount of tension wanted will be found of great service in adjusting and putting tension in saws. Place the saw on anvil as in hammering, hold the tension gauge square across the blade at arms' length as in figure 2, and if the tension has been properly adjusted the saw will conform to the curved edge of the tension gauge from tooth edge to back. To reduce the amount of tension or stiffen the blade, hammer gently along the edges of the saw (front and back), taking care not to strike nearer than a quarter of an inch from the edge or bottom of a tooth, figure 7. To increase the tension (or "open up") hammer the center or body of blade, testing frequently with the tension gauge, figure 8.

The matter of feed is a very important item in the successful running and life of a band saw. The good sawyer is one who will get all the lumber out of a log there is in it at the rate of speed up to the capacity of the mill, and not strain the saw or machine in so doing. Let the feed "get away" from you but for an instant and a fracture is almost sure to occur.

Do not have sharp gullets to the teeth; this concentrates the bend of the saw, as it runs over the wheels too much at one point. Use as long a gullet as practicable, with no sharp corners or abrupt angles (see cut). Teeth that are too long chatter in the cut and sometimes cause fractures by throwing undue strain on the blade at the root of the tooth.

The swaging and fitting of the teeth is practically the same as in a full swaged gang saw, the swaging being side-filed to a uniform width with an under cut in order to

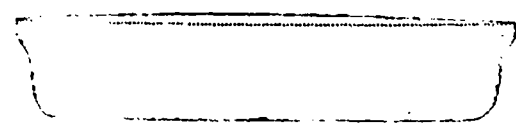


FIG. 6.

TENSION GAUGE.—Made in lengths from 6 to 12 inches, with the curved edge adapted to face of the wheels and the tension required.

leave the extreme point of tooth the widest; the full amount of swage when side-filed should never exceed No. 8 gauge in a 14 gauge saw, and in hard timber can be run on No. 9 gauge. It is advisable to run as little swage as practicable, as it decreases tensile strain on the saw. The amount of hook ranges from four inches to six and one-half inches in a 10-inch saw, being governed by the timber to be sawn and the amount of feed carried; when a properly hammered saw runs perfectly true on the wheels out of the cut, but "chases" back on the wheels as soon as it enters the log, increase the amount of hook until saw retains practically the same position on wheels both in and out of the cut.

In sharpening use a medium soft emery wheel, and do not crowd it on its work, which will result in case-hardening





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

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trader 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.

TO VISITING LUMBERMEN.

Lumbermen visiting Toronto are invited to use the office of the CANADA LUMBERMAN as their own. We shall take pleasure in supplying them with every convenience for receiving and answering their correspondence, and hold ourselves at their service in any other way they may desire.

FUNCTIONS OF A TRADE JOURNAL.

RECENT observations have suggested the writing of a few lines regarding the functions of a trade journal, and THE LUMBERMAN in particular. Briefly, a trade journal is a source of information, by which members may be kept in touch with the transactions bearing upon the trade, and having for its object the improvement of the trade in general. That this is the scope of a trade paper is, we believe, generally recognized, but it is possible that a misapprehension may exist in the minds of some as to how this can best be accomplished.

During the many years of its existence, THE LUMBERMAN has received hearty support from the lumber trade, for which we feel grateful. By the assistance thus given, we have endeavored to place before our readers a creditable journal. As to how far we have succeeded we leave them to decide. It is the purpose to relax no effort during the coming year to render the journal more valuable, and to this end the co-operation of our readers is asked. These columns are open for the free and fair discussion of all subjects affecting the trade or allied interests, and readers are requested to contribute their views.

Another way by which assistance may be rendered is by sending in items of news from your locality, which would enable us to compile a fund of information of general interest. Should you contemplate making any improvements to your plant, purchasing additional machinery, erecting a new building, or in any way improving your facilities, you are asked to forward advance information concerning your purpose to THE LUMBERMAN. When about to place an order for machinery, consult our advertisement pages, and mention THE LUMBERMAN in your correspondence.

Now, a word as to the WEEKLY EDITION. Its purpose is to present, as accurately as possible, the condition of the lumber market, both at home and abroad. Therefore, we need scarcely refer to the desirability of obtaining reports of volume of cut, sales of stocks, and information of this character. Only by this means are we enabled to give reliable and up-to-date information.

With this number THE LUMBERMAN closes its eighteenth volume, and before another issue the festive season will have come and gone. To all our readers and lumbermen in general we extend a hearty greeting. May the New Year bring to all increased happiness and prosperity.

ATTEMPTED BOYCOTT OF CANADIAN JOINERY.

AN effort has been made by the Amalgamated Society of Carpenters and Joiners of Great Britain to boycott Canadian and United States joinery. This society recently issued a circular to its members requesting them not to fix or use foreign joinery, and drawing special attention to the importation of doors, windows, etc., from America, which they claimed were manufactured under unfair conditions and by ill-paid labor. Several weeks were granted before the injunction was put in operation, but on a certain date the members were, in substance, instructed to band together to prohibit the importation of such joinery.

For many years large quantities of manufactured joinery have been exported from Canada and the United States to Great Britain, and this is, we believe, the first organized effort that has been made to restrict importation. The consequences, however, are not likely to be serious, as the trade has now become too well established to be permanently injured by the selfish and ill-advised action of a trade organization.

Before taking such a step, it would have been well had the society endeavored to ascertain the actual facts and conditions. We will consider only the conditions as they exist in Canada, and in this connection will endeavor to prove that Canadian doors, to which particular reference is made, are manufactured under proper conditions, and not by inferior workmen employed at low wages.

By an act passed by the Ontario Legislature on May 5th, 1894, and which is now in force, provision is made for the appointment of councils of conciliation and arbitration for settling industrial disputes arising out of the price to be paid for labor, disagreement with respect to wages, number of working hours, insufficient or unwholesome food supplied by employers, and ill-ventilated or dangerous workshops or places of accommodation. Whenever a complaint

arises these councils visit the locality and obtain all particulars of the case. The Ontario Factories Act provides, among other things, that no girl or boy under fourteen years of age shall be employed in any factory, that every factory shall be kept in first-class condition as regards cleanliness, and that proper ventilation be provided. These provisions are generally complied with, and very few complaints are received by the inspectors.

Regarding the wages in our wood-working factories, we have ascertained the average wage paid by several sash and door manufacturers in Canada. One of the largest exporters to the British market writes that the range of men's wages in the factory is from \$1.00 to \$2.25 per day of ten hours, according to character of work and skill of workman; another that from \$1.50 to \$1.75 is the average; and another that \$1.50 would be about the correct figure. In addition to the adults employed, there are some apprentices learning the trade whose wages would average from 50 cents to \$1.00 per day. This would give an average of nearly \$1.60 per day for adults and 75 cents for apprentices. Four other firms who manufacture largely for the local trade, but who have also exported doors to Newfoundland, the West Indies and South America, give the average scale of wages as follows: No. 1—\$1.50 to \$1.80 per day; No. 2—\$1.60, \$1.75, \$1.80 and \$2.00 per day; No. 3—\$1.25 to \$2.00; No. 4—9 first-class joiners, \$12 a week; 37 very good, \$11; 63 good, \$10; 61 pretty good, \$9; 49 common, \$8.00 to \$8.50; 26 3rd year, \$7.50; 31 2nd year, \$6.00 to \$7.00; 10 1st year and apprentices, \$3.00 to \$5.00. The above figures give an average of \$1.60 per day. It must also be remembered that most of the factories are operated the year round, and consequently the average is lower than would be the case if operated only during the building season. For living accommodation the cost in the localities in which the factories are located is not above three dollars per week.

We think the above figures should convince the most skeptical that Canadian doors are manufactured by properly-paid labor and under fair conditions. The average scale of wages compares favorably with that paid in other lines of industry, and we believe that nowhere in the world are laborers given greater remuneration for their services than in Canada, and nowhere does greater harmony exist between capital and labor. The rights of our workmen are respected, and protected by law. The absence of serious strikes is an evidence of the fact that the conditions are such as we have described.

The secret of our success in competing in the British market against home-made joinery is not to be found in the price of labor, but rather in the skilful manipulation of our raw materials by means of improved machinery. England is the great manufacturing nation of the world, but unfortunately she is compelled to import her raw material. Hence Canada, with her forest wealth, becomes a competitor in manufactured joinery, and the country producing the goods at the smallest cost naturally captures the market.

A visitor to some of our woodworking factories will at once be impressed with the marvelous work accomplished by machinery, by means of which the productive capacity is greatly increased and the quality of the work improved as

well. This increased capacity enables the Canadian manufacturer to produce the goods at the smallest possible cost. These are the advantages that have enabled our manufacturers to successfully compete with those of Great Britain.

It is unfortunate that a greater distinction is not made in foreign countries between Canada and the United States. Even in our mother country there is much ignorance regarding Canada. In this may be found the cause of the present protest against Canadian doors, as we understand there was much dissatisfaction with a large consignment of doors that were imported into England from the United States, and which were found to be of very inferior quality. It is possible, also, that Canadian manufacturers are suffering somewhat from the reputation for the sweating system that is reported to exist in some portions of the United States, where female labor is said to be employed in door-making. There is also much antipathy in England to goods made in United States prisons for export, as well as on account of the bitter opposition of American employers to trades unions. In Canada, however, no such conditions exist, and our manufacturers would do well to adopt some means by which foreigners would cease to confound Canada with the United States. This might be done by stamping on all our goods the words "Made in Canada," after the manner of German manufacturers.

#### EDITORIAL NOTES.

THERE are in course of construction, or projected, in different parts of Canada, a large number of new saw mills. That this should be the case, in the face of the partial closing of the United States market by a two dollar duty on lumber, is significant, and shows that our lumbermen and capitalists have faith in the lumber industry of the Dominion, and that they realize the valuable asset which we possess in our forests. The time is not far distant when Canada will furnish a much larger portion of the world's timber supply than at present.

WE have recently heard the complaint that the lumber trade sometimes suffers owing to an insufficient number of cars to carry the stock. It is claimed that grain is given the preference over lumber as freight, although for what reason it does not appear. Certainly the risk to the carrier is less in the case of lumber than with many other commodities, as should an accident occur the damage is not likely to be great. During the heavy movement of grain this fall both here and in the United States, it was difficult to obtain cars for the shipment of lumber, a condition which is said to be experienced to a greater or less extent every year. We fail to see why the lumber trade should be made subordinate to that of grain.

A PROPOSAL has been made, and has received the support of a number of prominent business men, to establish a commercial agency in London, Eng., where reliable information and statistics could be obtained on all matters relating to Canadian products. The present commercial office is claimed to be unadapted to properly advance the real commercial interests of the

country. The present is undoubtedly an opportune time to take such a step, in view of the action of the government in regard to preferential trade. We think there should be placed on exhibit at the agency specimens of the chief products of Canada, of the forest, farm, mine, etc., in order that probable buyers and others interested may become acquainted with the character of our goods. Unfortunately, each day brings new evidence of how little is known even in the mother country of the products of Canada.

THE great exposition that is to take place in Paris, France, in 1900, should not be lost sight of by Canadians, and by Canadian manufacturers in particular. The time is distant a little less than three years, and it is now none too early to begin preparations for making a creditable display of Canadian manufactures and forest products. We are pleased to observe that a deputation from Montreal has drawn the attention of the Dominion government to the matter, and that there is a strong probability of assistance being received from this source. But in addition to a Dominion grant, it would seem fitting that each provincial government should assist to secure the advantages which are certain to accrue to us from a commercial standpoint by having Canada properly represented at this exposition. This year the Dominion of Canada has been advertised abroad as never before, and the benefits therefrom have already commenced to be realized, as shown by inquiries received by manufacturers. Having thus made a start, we should seize every opportunity to further extend our trade relations, and where a foothold is once secured the quality of our manufactures may be relied on to keep the market.

MR. J. S. Larke, commercial agent in Australia, in a letter to Sir Richard Cartwright, calls attention to the unbusinesslike methods of some Canadian manufacturers, and points out that owing to dilatoriness trade that otherwise would come to Canada has gone to the United States. Special reference is made to the timber trade, and an instance is cited where a reliable timber broker in New South Wales was negotiating for goods with a lumber manufacturer in British Columbia, but finally became dissatisfied by reason of the delay and lack of attention to correspondence, and placed the order with a United States firm. Mr. Larke recently called attention to the fact that oak staves for wine casks were wanted, and received replies from United States dealers, but no Canadian manufacturer or dealer intimated any desire to secure the trade. We can readily understand that these circumstances are discouraging to Mr. Larke, and to other agents who may have had similar experiences. Unless they receive the co-operation of manufacturers here, their efforts to secure trade for Canada must prove abortive. We therefore hope, now that the matter has been brought to their attention, that our manufacturers will give the commercial agents no further cause of complaint. Regarding the order for staves, it is only fair to the trade to point out that no oak staves of any consequence are now exported from Canada, and there was probably no Canadian house in a position to supply the stock.



THE fact has been chronicled more than once within the past year that lumber would bring fabulous prices in the Yukon mining region, and saw mill men by the score have been weighing the possibilities of successfully reaching this new Eldorado. A mill in the vicinity of Dyea, writes a miner, turning out lumber at \$100 per thousand feet, and is said to be "supplying an emphatic want." Far away in the interior of British Columbia where it is the peril of a man's life to go on foot alone—they have managed to take an outfit for converting logs into lumber. On an arm of Lake Bennett there is a saw mill owned by Rudolph & Co., cutting lumber for boats. The man wanting the boat goes into the woods and cuts his own logs, takes them to the mill and pays \$70 per thousand feet for having them sawn into boards. If the saw mill owners supply the logs themselves they charge \$100 per thousand feet, and if the traveller wants them to build the boat also, from \$75 to \$150 extra is charged. The mill has a capacity of 9,000 ft. per day, so that if employed full time the revenue would be about one thousand dollars per day. Some manufacturers have endeavored to avoid the hardships of that country by locating mills in civilized parts and shipping the lumber to the Klondyke, but the cost of getting it there is very great, and the venture has not proved a success. The man who goes in with a small outfit has little to lose, and stands a fair chance of coming out on the right side.

\* \* \*

What a blessing it would be to saw mill owners if some commercial use could be made of the immense quantities of sawdust produced. In steam mills it is used as fuel, but in the case of water power mills it is of no service whatever. In the Ottawa valley the sawdust has for years been dumped into the river, but now that this is to be prevented by legislation, the owners of water power mills are face to face with the difficult problem of getting rid of the thousands of tons of this material. Instead of the sawdust being of any value, it is probable that thousands of dollars will have to be expended to consume it. But in these days of inventive genius, it will surely not be long before some scheme is devised to make it revenue-producing. Already novel methods are in vogue in some parts of the United States. In Philadelphia there are about half a dozen dealers in the prosaic commodity. These dealers handle the production of all the local mills and also import quantities from the southern lumber mills. The dealer's wagon goes over a regular route every day, serving the customers, the sawdust being put up in bags containing three bushels and weighing from 40 to 50 pounds. The largest dealers are the cold storage warehouses, each of which take from 50 to 60 bags per week, and the large meat houses, which use about one-third that quantity. The price is from 15 to 20 cents a bag, according to weight, except for boxwood sawdust, which brings as high as \$2.50 per bag.

### A PROGRESSIVE LUMBER FIRM.

AMONG the lumber firms in Nova Scotia perhaps that of Dickie & McGrath, of Tusket, is now most favorably situated for doing a large business. This firm is composed of Mr. Alfred Dickie, of Lower Stewiacke, and Mr. Thos. N. McGrath, of Tusket, portraits of whom appear herewith, together with a view of the river front and saw mill. About one year ago they purchased the steam mill and extensive privileges of the Tusket River Lumber Co., and have since



MR. ALFRED DICKIE, Lower Stewiacke.

made some very important improvements to the property. They have put in new furnaces, new box machine, a 1,128 ft. log chaser, "live" rolls and other improvements, and have now a daily capacity for sawing 40,000 ft. of long stuff, 30,000 laths, and 400 boxes. The box machine is sometimes used for sawing lobster-trap sills and shingles. Their annual cut is about 8,000,000 feet of logs.

There are loading facilities at their mills for



MR. THOS. N. McGRATH, Tusket.

crafts of about 200 tons, while at a short distance is a good wharf at which vessels of some 500 tons can lie. Formerly vessels of greater capacity than 500 tons, loading the output of this mill, had to lie in Yarmouth harbor, which meant freighting the lumber nine miles by cart or train; or these vessels could anchor in an exposed position at the mouth of the Tusket river while the cargo was being lightered down to them. In the first instance the expensive freighting absorbed a large percentage of the profits, while in the second it was impossible to make a favorable charter, as the harbor facilities at the

mouth of the Tusket did not come up to the ideas of the vessel men.

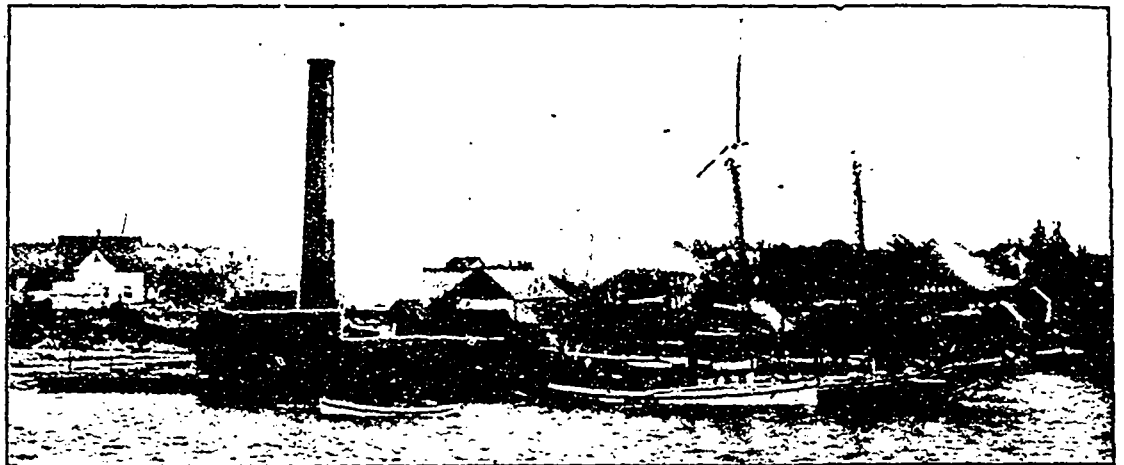
The lumber manufacturer, as is the case with his compeers in other lines of industry, is ever seeking to increase the margin between the cost of production and the market price of his commodity. Thus it was that Mr. McGrath, the energetic manager of the Dickie & McGrath Company, cast about for a more economical way of getting his output to market. A survey of the situation led him to believe that there was a good harbor for large ships there. He chartered the fine large Yarmouth ship Ruby, of 1,316 tons, with a Yarmouth man, Captain S. B. Robbins, master, as a preliminary step. When the vessel arrived, he arranged with Capt. Robbins and Capt. LeBlanc, of the steamer Ida Lou, to take soundings and make a survey of certain deep water outside the regular channel which serves the Wedge traffic. These gentlemen reported the discovery of a commodious channel running 7 and 6 fathoms (at low tide) which led to a pool of five fathoms, under the protection of Corporon's Cape and Birch Island, in which the Ruby could lie at single anchor and swing clear at all times of tide. Capt. Robbins was delighted with

mills. Mr. Dickie has shipped from Pictou this season about ten million feet.

### A TIMBER SUIT.

THE Ontario government entered suit against Hiram Sibley, of Rochester, James Beringer, of East Saginaw, and James T. Hurst, of Detroit, to recover \$21,000 alleged to be owing for timber dues. The limits are situated in the district of Onaping Lake, and were sold to the defendants for \$71,000. Of this sum \$55,000 was paid, leaving a balance of \$16,000 and \$5,000 interest. Judgment was given in the Single Court for the amount.

Mr. Hurst gives the following statement of the case: "The firm of Hale & Booth, of Ottawa, owned the original grant of the land in dispute, and some years ago sold it to Hiram Sibley and Isaac Beringer, who in turn transferred it to me. I only hold a timber claim, and the government put in a man to scale my cut. I had to pay a certain amount per thousand for all I got out. After the timber was nearly exhausted, I found by my books that the lumber as sold to me did not figure up to within several million feet of what the government wanted me to pay for, and



SAW MILL OF AND RIVER FRONT DICKIE & McGRATH, TUSKET, N.B.

the new anchorage and the approach thereto, and had no hesitation about bringing his vessel in.

Messrs. Dickie & McGrath secured a privilege along the water front and proceeded with the construction of a wharf, at which vessels of large size can lie afloat at all times of tide and to which navigation is open the year around. Vessels will be permitted to discharge ballast on the wharf. The firm will also bore a well above the wharf, from which it is expected a good supply of water can be obtained for vessels.

This firm has two steam tugs with which to tow their lighters down from the mill. They have lately constructed some of the largest lighters ever seen in these parts, having just completed one of a capacity of 300,000 feet. It is their intention to lighter the lumber down the river during the summer and autumn and pile it on the new wharf for shipment.

Besides their operations at this place, Mr. Alfred Dickie also owns and operates extensive timber limits in Colchester and Pictou counties. He has a large steam mill in connection with his Colchester property, on the Stewiacke river, which has sawn this season over ten million feet. The output of this mill is shipped from Halifax to trans-Atlantic ports. The logs cut on the Pictou county property are manufactured by portable

I refused to go on, when I found they would take no one's word or records but their own agent's, and the government brought suit against the original owners. Now the decision has been rendered, Hale & Booth will probably come here after me. If they do, I think I will be able to show that, instead of being in debt, the Canadian government owes me a small amount."

Peter Reid, of Lemesurier, Que., is installing a new engine and boiler purchased from the Jenckes Machine Co., of Sherbrooke, which will largely increase the capacity of his saw mill.

Mr. J. H. Walker, who for many years was manager of the Canadian Rubber Company's Toronto branch, has recently severed his connection with the company and established a wholesale agency for rubber goods at No. 88 Bay street, Toronto. Mr. Walker's long and valuable experience in handling this line of goods, coupled with his personal qualifications, will doubtless enable him to make satisfactory business connections and win success in his new venture.

McLaurin & Maclaren, of East Templeton, Que., have just started their new mill, which comprises two band mills, made by the Wm. Hamilton Mfg. Co., of Peterboro', Ont., and steam feed throughout. The mill was erected and built by Mr. T. N. Kendall, of Ottawa, who is now engaged in erecting lath and shingle mills for the same company. The live rolls and other machinery were supplied by the Chaudiere Machine & Foundry Company, Duke street, Ottawa. Everything went off in splendid shape, and satisfactory in every respect.

# THE RETAILER AND Wood-Worker

## LOOKING AHEAD.

IT hardly need be remarked that the dealer who never looks ahead, but waits for a demand to develop before preparing to meet it, may not be "looking for trouble," but he is doomed to find it.

The customs and exigencies of the trade are constantly changing in a manner and in directions to demand constant vigilance and discernment to intelligently keep up with them.

We have upon previous occasions ventured to suggest that the management of a retail lumber yard is derelict—unequal to its opportunities—when it does not see and comprehend and take advantage of what its trade requires, and is likely soon to need. If the dealer knows more about these things than his customers and can instruct them regarding what they need, so much the better for the dealer; but if he bestows upon impending conditions, even in a conservative measure, the intelligent study of which the average dealer is capable, he is likely, thereby, to be spared a good deal of otherwise needless sacrifice and disappointment.

The nature and volume of maturing crops, the markets and general conditions considered in combination, will ordinarily afford a sufficient basis or reasonably safe calculation.

A reasonable assurance of good crops in a given locality, with a like certainty of fair or good prices, means additional lumber trade of certain kinds, just about as sure as anything earthly can be. Nor is the resulting trade going to be restricted in such a contingency to farmers' trade only. In the region where farmers are in a position to buy and improve, other trades and labor and every sort of pursuit, the sum of which stands for prosperity, are sure to share in the movement in due time. Except to the fellows who get into office, there is, generally speaking, no mere class prosperity possible in this country for any great length of time. If, primarily, the farmers are prosperous and general confidence in the situation is sufficient at the same time to keep the industries actively alive, labor is thereby assured of employment and the community at large is assured of what we call prosperity. Under such conditions, the demand expands, prices advance, profits flow and everybody with the ability, strength or industry to "pitch in," gets a share accordingly. The essence of the whole fabric of production, industry, trade and commerce inheres in the one word, "profits," because without gain there can be no incentive to inspire active operations.—Timberman.

A. J. Mitchell, planing mill, Rodney, Ont., has been succeeded by F. A. McCallum.

The Cookshire Mills Company, Cookshire, Que., will build a new box factory at that place.

## BALDWIN, TUTHILL & BOLTON'S MOVABLE SAW STRETCHER AND SHEAR.

THE fine tensioning of bands, gangs, and band re-saws being so essential to successful work, it follows that every operator of such saws should be interested in high grade saw stretching or tensioning machines, and one of the styles made by Baldwin, Tuthill & Bolton, Grand Rapids, Mich, is illustrated herewith.

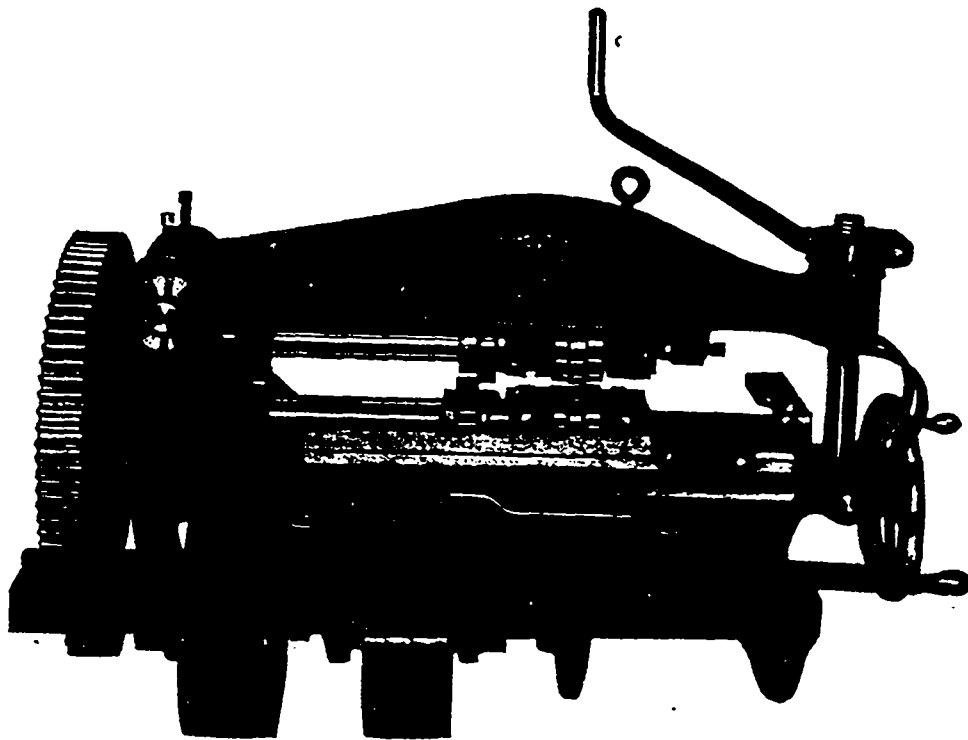
This machine is offered by the makers as the most complete stretcher in the market, and the only one equipped with the shear feature, which is very serviceable in preparing saws for retoothing

may be set to one side out of the way, by use of spanner wrench furnished.

Given material strength and power, the success of a stretcher then depends entirely upon the make and grind of the rolls. The rolls are made up solid of the finest steel tempered by an expert and ground mathematically true on the most approved segments. In fine construction, finish, power and general efficiency, the makers claim their machines are unapproached, and furnish their products with an unqualified warranty.

Baldwin, Tuthill & Bolton make saw stretchers as follows: Bolton 12 inch movable stretcher and shear (illustrated), Bolton 12 inch stationary stretcher and shear, Bolton 12 inch stationary stretcher, Bolton 9 inch stationary stretcher, Bolton 6 inch stationary stretcher.

These are distinct machines of different design, adapted to varying requirements, and priced as low as their high grade construction and intrinsic value will permit. These machines are all fully described and illustrated in a new 200 page catalogue for 1898, which is one of the finest machinery catalogues issued, and illustrates a large line of some 60 or more saw fitting machines and tools adapted to bands, gangs,



BOLTON 12 INCH MOVABLE STRETCHER AND SHEAR.

ing or cutting down pieces to braze in. The machine itself is mounted on a bed-plate or track, over which it is moved laterally by means of hand wheel, thus adapting the rolls to any part of the saw, and avoiding the necessity of moving the saw itself, laterally. The machine is unusually heavy and powerful, and is guaranteed to act on the hardest saws successfully. Special guides are furnished for tensioning and shearing; elliptic springs raise upper roll from saw as pressure is diminished, and the pressure is obtained by a coarse lead screw, maximum pressure being secured by less than one-quarter turn of the lever. Motion in either direction may be secured instantly.

The cutters for shearing feed the saw through at the regular speed of machine as run in tensioning, and make a clean, smooth, true cut of any width. This is a feature which the manufacturers state is not found on any other machine. When not required for use the cutters

circulars and band resaws. This book also contains a lengthy treatise on the practical side of tensioning and fitting saws, which will render it invaluable to saw filers.

All persons interested in saw stretchers or other saw fitting equipment should send for a copy of the catalogue, and quotations may be had promptly by addressing Baldwin, Tuthill & Bolton, Grand Rapids, Mich., U.S.A.

A process is said to be in vogue by which it is claimed that poplar can be made so tough as to require a cold-chisel to split it. The result is obtained by steaming the timber and submitting it to end pressure, technically "upsetting" it, thus compressing the cells and fibers into one compact mass. It is the opinion of those who have had experience with the process that wood can be compressed 57%, and that some timber which is now considered unfit for such work as carriage building could be made valuable by this means.

## THE NEWS.

L. P. Westergard has opened a lumber yard at Fox Warren, Man.

—Robertson & Hackett, of Vancouver, B. C., have put in a new engine.

—The Utterson Lumber Co. have put in a planing mill plant at their Utterson mill.

—The Three Rivers Iron Works Company will probably increase the size of its works.

—The Rathbun Company recently shipped several car-loads of doors to South Africa.

—Typhoid fever is said to be prevalent in the lumber districts of the Gaiineau valley.

Gilmour & Co.'s saw mill at Trenton, Ont., closed down recently, after making a small cut.

—The Pacific Coast Lumber Co., of New Westminster, B. C., has added an upright shingle machine.

—Joseph Campbell, of Newton, N. B., is shipping large quantities of spool wood to Glasgow, Scotland.

—H. Stewart, of Detroit, was recently in Parry Sound looking for a suitable location for a shingle mill.

Keneetel & Young, of Turtle Lake, have purchased a shingle mill from Buchner & Reid, of Orrville, Ont.

A large boiler in the Royal City Mills, Vancouver, B. C., exploded on the 4th ultimo, injuring three employees.

—Mr. P. Mutchenbacher has withdrawn from the Smider Lumber Company, of Gravenhurst, and will carry on a lumber business at Rosseau Falls.

—The Rainy River Boom Co. will improve and strengthen its booms very considerably this fall to avert trouble from the usual spring freshet.

Shepard, Farmer & Co., of Boston, are reported to have booked an order for 1,200,000 feet of yellow pine for railway construction near Montreal.

—H. B. Mitchell, a lumber dealer at Selkirk, Man., was recently accidentally shot in the arm while hunting, and it is reported that he will lose his arm.

An action in which \$70,000 is claimed has been entered against Alex. Fraser by Andrew A. Buell & Co., of Ottawa. The case arises out of a dispute concerning certain timber limits.

Mr. E. Methot, of Cap St. Ignace, intends rebuilding his saw mill and installing two 40 h. p. boilers, which are being built by the Jenckes Machine Company, of Sherbrooke, Que.

—Buchanan Bros., who have managed the Thompson mill at Gravenhurst, Ont., have purchased a shingle mill at Powassan, which is now being put in readiness for manufacturing.

—John McLaren, of Buckingham, and Louis McLaurin, of Templeton, are constructing a new steam saw mill on the south shore of the Ottawa river at East Templeton. It will cost about \$30,000.

—Spencer & Spencer, of Freleighsburg, Que., are enlarging their saw mill, and for this purpose have placed an order with the Jenckes Machine Co., of Sherbrooke, for one of their 25" Special Crocker turbines.

A reorganization has taken place in the McEachren Heating and Ventilating Company, of Galt, Ont. The business in future will be carried on by J. D. McEachren and W. D. Sheldon, under the same name as heretofore.

During the month of September heavy losses were incurred by the insurance companies from saw mill fires. There were eight fires, which brought an insurance loss of \$116,800, or nearly one-third of the total loss for the month.

—Bentley & Co., of Port Greville, N. S., are operating a portable mill on the property at St. Martins. The firm are getting out a lot of the largest trees and shipping them full length in the round state to the United States market.

It is stated that a large lumber mill at Ashland, Maine, with a capacity of 20,000,000 feet per annum, will remove to Fredericton, N. B., and be erected on the Simond's property. Scarcity of water is given as the cause of removal.

—It is understood that Gillies Bros. Company, of Braeside, Ont., will build at Catagogie Lake a mill to manufacture cedar ties, shingles, basswood, elm and ash.

Another mill may probably be built at Braeside for the manufacture of box boards for foreign shipment.

Price Bros., saw millers, Quebec, have placed an order with the Jenckes Machine Co., of Sherbrooke, Que., for one of their special refuse burners, 18 feet in diameter and 120 feet high, for their Montmagny mill. This is the second burner of this size that the Jenckes Company have supplied.

—A correspondent in Buenos Ayres writes that the Argentine tariff for next year recommended by the president of the republic contains certain increased duties, among which is a duty of 66 per cent. on yellow pine. The imports of lumber to the Argentine Republic during the year 1896 amounted to \$2,926,854.

—The output of lumber in Alaska next year, if it can be compiled, ought to be interesting. There will be over 100 new mills in that region, principally of the portable variety, but the transcontinental roads will not worry about freight rates, nor will the cargo trade be menaced. The Alaska saw mills will devote their attention entirely to boat and house building lumber.

—The Assistant Commissioner of Crown Lands for Ontario has sent a letter to lumbermen requesting that they furnish a statement showing the quantity of logs and round timber proposed to be taken out this winter. The information is wanted to assist the government in determining what steps should be taken regarding the export of saw logs, the statement having been made that Michigan licensees were preparing for an enormously increased cut.

—Messrs. George F. Roy & Sons are moving their saw and shingle mill from Starrat, Ont., to the south end of Doe Lake, in the township of McMurrich, where they will have increased facilities for shipping. From one end of the lake they can ship on the G. T. Railway, and at the other end on the Parry Sound Railway. During the last seven years they have made the remarkable record that no man was ever crippled in their mill, and they never had a break down that cost over five dollars for repairs. Their post office will now be Sprucedale, Ont.

—A company of Minnesota lumbermen are said to be considering the building of a canal from Buffalo Bay, on the Lake of the Woods, to the Seine river. There is a fall of 300 feet and over between these points, and the scheme embraces the floating of logs to Winnipeg to be sawed into lumber from the Lake of the Woods timber limits, the supplying of good pure water from the lower end of the lake to the city, and a water power system. It is improbable that the scheme will ever be undertaken, as it is difficult to see how it would be made a paying investment.

—There is a proposition before the Dominion government from the Rathbun Company, of Deseronto, for the manufacture of wood alcohol in Canada. This is a product that is not manufactured in the Dominion. It is used in the United States and found to be very cheap and perfectly suited for the manufacture of methylated spirits, such as is not drinkable. The wood alcohol leaves a charcoal which is disposed of at a profit in the States for smelting purposes. Up to the present there has been no market for the charcoal in this country, but now it is said that since smelting has developed into an industry in Canada the charcoal might very easily be disposed of.

A member of the Dominion parliament, referring to the recent bush fires, said: "It is my firm conviction that the starting of a fire in the woods should be made a criminal offence, and punishable by heavy penalties. I do not believe that there have been many instances of large bush fires in recent years which have not been the direct outcome of gross neglect and carelessness. Our forest wealth is worth to us as much as any gold mines; much of it has been swept away by the devastation of great fires. Is this to continue? If it does there will very soon be little left. The provincial governments would do well to take the matter into their consideration very seriously. It properly belongs to them, and would, if the law were enforced a few times, be soon understood."

Speaking of his recent exploration to the Hudson Bay, Dr. Bell says: "The forests extend two-thirds of the way up either shore of Hudson Bay, and further north in the interior on both sides. Around James Bay and to the south of it much of the timber will be valuable for sawing into lumber and for other purposes. The verge of the forests crossed the northern part of the Labrador Peninsula from near Richmond Gulf to Ungava Bay in Hudson Strait, but except around this bay no timber was

to be seen on any other part of the strait. Driftwood brought down by the rivers falling into Hudson and Ungava Bays, was strewn along the southern shore of the strait, and was very useful for fuel. The small quantity of wood stranded on the northern side had perhaps come from Siberia, after drifting for thousands of miles with the ocean currents which set from one coast to the other."

## CASUALTIES.

—Wm. Sullivan, jr., of Bass River, N. B., aged 23 years, while working in the lumber woods near Berlin Falls, N. H., was killed by a falling tree.

—While assisting in building a skidway at J. D. Shier's camp, beyond Dorset, Andrew Kirpatrick, of Ufingtoia, a young man 24 years of age, was instantly killed.

—While C. F. Barker, proprietor of the Burford lumber mills, Burford, Ont., was at work at the mills on Saturday, a big log rolled over him, breaking his collar bone and bruising him terribly. He was injured internally.

## PERSONAL.

Mr. Francis Dube, lumberman, of Sussex, N. B., died recently, in his sixty-sixth year.

Mr. Robert Kay, a prominent lumberman of Upper Sackville, N. B., is dead. He was 60 years of age.

Mr. Daniel McNab, who is said to have erected the first saw mill in the Nipissing district, died at Powassan, Ont., last month.

Mr. Edwin Haynes, of the Timber Trades Journal, London, Eng., arrived in New York on November 6th, in the interest of his paper.

Mr. R. M. Beckett, of Dobell, Beckett & Co., timber merchants, Quebec, sailed last week for his home in England, where he will spend the winter.

Mr. John H. Eby, bookkeeper for the Southampten Lumber Co., is receiving the congratulations of his friends upon his recent marriage to Miss Pyke, of Elmwood.

Mr. W. Malcolm Mackay, of St. John, N. B., has recently recovered from the effects of a serious sprain, which incapacitated him from business for about six weeks.

While Dr. George Kennedy, of the Ontario Crown Lands Department, was attending the recent Caledonia banquet in Toronto, burglars entered his residence at 177 Bloor street west. They secured \$2.58 in cash, a gold medal and diamond ring.

Mr. Honore Petit, M.P.P., of Chicoutimi, returned last month from Europe. He was over in the interests of the spool wood industry, and reports the English market active. Millions of feet will shortly be sent forward by Canadian exporters.

Captain Charland died at Windsor, Ont., on the 12th inst. He was born in Quebec, and when sixteen years of age commenced in the lumber business, and had been engaged in that line from Quebec to the Gulf of Mexico. He helped to build the docks of the Great Western Railway in Windsor.

One of the oldest and most respected lumbermen of Buffalo has passed away, in the person of Mr. George R. Haines, of the firm of Haines & Co. Deceased was born in New York state in 1833, and in 1861 entered the lumber business at Buffalo with his father, who has since died. Alfred Haines and Mr. E. Preisch were his partners.

Mr. Charles K. Eddy, head of the white pine firm of C. K. Eddy & Sons, Saginaw, Mich., with large timber interests in Canada, was married in Chicago on November 3rd to Miss Chapman, of Penobscot, Maine. Mr. Eddy is seventy-six years of age, and his bride is said to be sixty-eight. Mr. Eddy has amassed a fortune in the lumber business.

Early in November death removed Major J. D. Hay, vice-president of the firm of Davidson & Hay, wholesale grocers, and a popular and highly respected citizen of Toronto. Deceased was born on November 13, 1854, his father, the late Robert Hay, being a native of Perthshire, Scotland, and for many years M.P. for Centre Toronto. Besides being connected with the grocery business, his firm for many years carried on extensive lumbering operations. Major Hay took an active interest in military affairs, and as lieutenant of the Tenth Royal Grenadiers, rendered signal service during the Northwest Rebellion. In 1892 he received the rank of major, retiring in 1896 but retaining rank.

# WOOD PULP DEPARTMENT

## COMPETITION FOR BRITISH TRADE.

CANADIAN manufacturers have within the past two years captured a portion of the British pulp trade from the Scandinavians, as has been shown from time to time by tables published in this department. The Canadian pulp is said to be of excellent quality and preferred by papermakers who have given it a trial.

The Scandinavians, who have heretofore practically controlled the British market, fully realize the competition that has been, and will be, experienced from American pulp, and are taking steps to prevent, as far as possible, the loss of their market. At their request, the Consul of Norway and Sweden at Quebec prepared a report on pulp manufacture in Canada. He states that the pulp shipped from the mills contains from thirty-three to fifty per cent. of moisture. The Consul does not think there is any reason to fear serious competition in wood pulp, but in paper and cardboards European mills may have to contend with Canadian competition. The Sault Ste. Marie mill and the Laurentide Company's mill are putting in paper-machines, and will consume their own production of wood pulp. The above mills and the mills in Nova Scotia can compete advantageously with Scandinavian mills. The cost of the pulp is stated to be £1 18s to £2 8s from "stump to the bar," with cost of transport to shipping port to be added.

The Scandinavians are shrewd business men, and the Canadian pulp manufacturers have no easy task before them in replacing their goods. Their efforts to obtain reliable information are worthy of commendation, and should serve as a

lesson to our manufacturers. If we expect to accomplish much in the way of an extension of trade, no stone should be left unturned to make known throughout European countries the extent of our resources and quality of our pulp.

If past and present circumstances can be taken as a criterion, it will only be a matter of a short time until a very large portion of the British pulp trade will be supplied by Canadian manufacturers. British capitalists are looking to Canada as a desirable field for investment, and no more promising industry can be found than that of the manufacture of pulp. Within the past six months several foreign manufacturers have visited this country in search of information as to the possibilities of obtaining a supply of pulp and pulp wood, and each have expressed surprise at the abundance of available water powers and extent of our natural resources. We observe that the British Columbia Wood Pulp and Paper Company, an English concern, is about to establish an extensive plant at Alberni, B. C., to manufacture paper and pulp, having in view the marketing of its surplus product in China and Japan.

The Paper Mill, of New York, admires the way the Scandinavians endeavor to fortify themselves against American competition in paper and pulp. This journal says: "They apprehend a sharp competition with the American industry, and so they are coming to America for munitions of war with which to fight us in the English field. Plans for a large paper making plant, to be erected in Sweden, are now being prepared in Appleton, Wis., and a number of western builders of machinery are figuring on the equipment."

During October 9,368 rolls of pulp were shipped from Montreal to the United Kingdom.

Donald Fraser & Sons, of Fredericton, N. B., have for some time been considering the establishment of a pulp mill. Mr. Fraser is now in communication with Scotch capitalists with a view to interesting them in the scheme.

## PULP NOTES.

The Canada Paper Company is putting some new pulp grinders into its mills at Fraserville and St. Raymond, Que.

Mr. A. T. Drummond, of Montreal, points out the advantages for manufacturing sulphite fibre in Eastern Ontario.

The Laurentide Pulp Company, of Grand Mere, Que., have made application for incorporation and for additional privileges in connection with the manufacture of pulp, paper and lumber.

D. G. Loois & Sons are erecting a large brick building at East Angus, Que., for the Royal Paper Co.'s new mill. It is the intention of the company to make it one of the most convenient and up-to-date pulp mills in the Dominion.

The Chicoutimi Pulp Co., Chicoutimi, have decided to extend their mill, and have placed an order with the Jenckes Machine Co., of Sherbrooke, Que., for nine of their perfect 10-plate screens, an additional Crocker turbine and a 50 h. p. steam boiler.

Wood Pulp, London, Eng., says: "We understand that a new Scottish Canadian Company has been formed for the manufacture of sulphite pulp. The name of the company is the St. John Sulphite Company, and as far as we have yet learned the board seems to be a strong one."

A syndicate composed, it is said, of two Chicago men and Mr. F. H. Clergue, president of the Sault Ste. Marie Pulp Company, has purchased a nickel property in Algoma for \$90,000. The intention of the new owners is to convey the ore to Sault Ste. Marie to be treated and to produce sulphuric acid from the sulphur extracted from the ore, for use in the manufacture of pulp and paper.

Probably the largest penstock ever used in connection with the development of water power in Canada is being built at the works of the Laurentide Pulp Co., Grand Mere, on the St. Maurice river. The main penstock is 14 feet in diameter, made from 7:16 steel plate, 550 feet long, and with its branches, has used in the neighborhood of three hundred tons of plate. The Jenckes Machine Co., of Sherbrooke, Que., have the contract.

The steamship companies are said to have refused to take on pulp at Quebec, which is seriously affecting the pulp manufacturers in that vicinity who are exporting to Great Britain. The St. Raymond Pulp Company, of St. Raymond, about 30 miles north of Quebec, have been compelled to send their pulp by rail to Montreal, a distance of 180 miles, there to be loaded on the ocean vessels. Notwithstanding this drawback they are still shipping to British ports.

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WEARS LONGER and WORKS BETTER than any other Belting on the Market.

HERCULES BELTING is constructed on a scientific plan. The Duck used is Extra Fine, costing nearly twice as much as that used in any other Rubber Belting. Every inch of it is frictioned with good rubber (not shoddy). Drop a postal card for list and discounts to.....

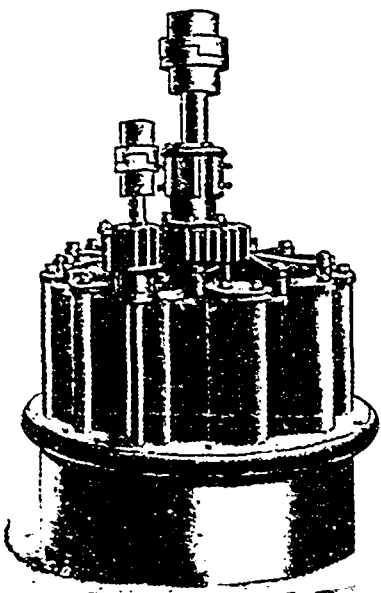
THE BOWMANVILLE RUBBER CO., LIMITED - BOWMANVILLE, ONT.

# PULP MACHINERY

We are prepared to supply Pulp Grinders, Wet Machines and Baling Presses. . . .

WRITE FOR ESTIMATES.

Robb Engineering Co., Ltd., Amherst, N.S.



## THE MILLS GRINDER THE CROCKER TURBINE For Pulp Mills

The Jenckes Machine Co.

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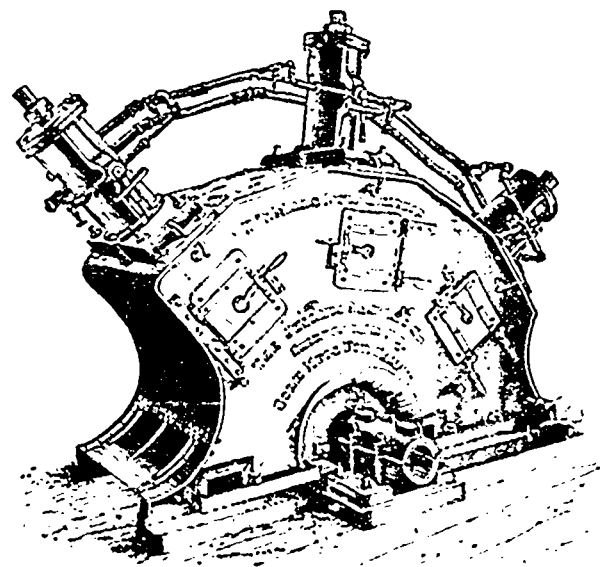
SHERBROOKE, QUE.

Builders of . . .

WET PRESSES - SCREENS

... AND ...

GENERAL PULP MILL MACHINERY



THREE TYPES OF WATER WHEELS.

The attention of our readers is directed to the advertisement in this issue of Mr. Madison Williams, who has purchased the foundry and machine shop of the Paxton, Tate & Co. estate, Port Perry, Ont. Mr. Williams' predecessors were for many years well and favorably known throughout Canada as the pioneers of water wheel manufacture. Their first production in this way was the "Leffel" wheel, which is perhaps more widely known than any other water wheel made, and has never been superseded in point of efficiency under certain conditions of operation and water supply. Varying conditions, however, called for wheels of special design and proportions, and to meet these requirements many improvements have been added and are embodied in the "Vulcan" and "Perfection" wheels, which have stood the most severe tests, so that for whatever purpose a wheel may be required, whether for heavy or light machinery, driving milling, mining or manufacturing, and under any condition of water supply, high or low head, ample or little water,

it is possible from these three types of wheels and the great variety of sizes (23 sizes in each, from 6 1/2" diameter to 8 feet) to find one that will absolutely fill the bill. In addition to their water wheels, Paxton, Tate & Co. have for many years turned out modern circular saw mills, shingle machines, lath mills, feed grinders, bark mills, etc., and have had their goods in demand in every province of the Dominion. To this long-established business Mr. Williams, as sole owner, brings practical experience, (having spent many years in the employment of Paxton, Tate & Co.), fresh capital, a good name and great earnestness in his determination to please customers and make his products a synonym for excellence and money's worth. The shops have been thoroughly overhauled and are already manned with a full staff of competent mechanics in every department, and we are advised that from enquiries and orders received during the past week, Mr. Williams will not only have the good will of all customers of Paxton, Tate & Co. but a full share of the new business springing up

throughout the country, which the merits of his machines deserve. Mr. Williams has our best wishes for the permanent success of his venture into the manufacturing world.

The village of Grenville, Que., offers exemption from taxation for twenty years for the establishment of a paper mill. The location is said to be a good one.

Taylor Bros., paper makers, of Toronto, recently received an order from Yokohama, Japan, for 110 tons of paper. Mr. George Anderson reports good prospects for developing a trade in paper with that country.

Among the latest uses to which wood pulp is being put is the manufacture of barrels and casks. The great defect in the past has been the production of removable heads. By a plan just patented one head of the cask or barrel is moulded in while the other is made to fasten in place by a series of keys. It is thought that by this process a highly popular barrel will be produced, and, in a measure, revolutionize the cooperage business.

Geo. Peters and W. Shaw have purchased a site at Merlin, Ont., for a planing mill, and intend to build.

The Jenckes Machine Co., of Sherbrooke, Que., are building a very large 20 x 10 crusher for the Wilson Carbide Co., St. Catharines, Ont.

It is understood that the Exploits Lumber Company, of which Mr. C. T. Hilliard, of Amherst, N.S., is manager, will erect pulp mills in Newfoundland. This company have acquired extensive spruce and pine timber lands in the vicinity of Botwoodville.

The firm of Wm. Ritchie & Co. are removing their saw mill from Granite Piles to Three Rivers, Que. They will build on the government island at the mouth of the St. Maurice. The St. Maurice Lumber Company is also building a large saw mill to replace the one that was burned this fall.

MODELS

of all features of Merit ever developed in Water Wheels.

"LEFFEL"
"VULCAN"
"PERFECTION"

TURBINES

Distinct Types that meet all economic requirements for using Water Power.

"LANE" Improved Circular Saw Mills and Carriages, Automatic Shingle Machines and Jointers, Lath Mills, Bark Mills, &c.

FORMERLY— PAXTON, TATE & CO., PORT PERRY, ONT.

NOW— MADISON WILLIAMS
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Heinz's Famous Pickles and Sauces

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Letter Orders Promptly Shipped

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The Leading European Lumber Paper

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SUBSCRIPTION: \$5.00 PER ANNUM, POST FREE

The "TIMBER TRADES JOURNAL" circulates in all European countries, the British Colonies, United States, &c., and is a very reliable medium of publicity for all buyers and sellers of hardwoods.

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Every Lumberman wants it 35 cents buys it

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SAVES TIME SAVES MISTAKES SAVES MONEY

BRIMFUL OF EVERY-DAY, PRACTICAL INFORMATION

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SAW FITTING MACHINERY AND TOOLS

4,000 Saw Filers

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Sharpeners, Swages, Side-dressers, Shapers, Saw Stretchers, Shears, Re-toothers, Lap Cutters, Lap Grinders, Brazing Clamps and Forges, Filing Clamps, Jointers, Benches, Pulleys, Hammers, Anvils, Straight Edges, Tension Gauges, Upsets, Engines, etc.

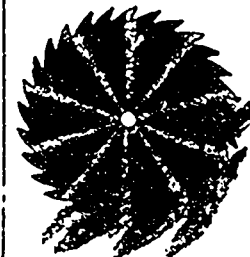
Over 60 Machines for Bands, Gangs, Circulars, Rift Gangs, Band Resaws

Our fine 200-page Book for 1898, on "Saw Fitting," will interest every filer and millman. Mention this paper.



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MANUFACTURERS OF ALL DESCRIPTIONS OF

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MIDDLE ST. Ottawa, Ont.

CORRESPONDENCE SOLICITED

F. Smith has decided to rebuild his planing mill in Goderich, which was burned recently.

Ovide Lelebyre has entered suit for \$2,000 against E. Dansereau, of Papineauville, Que., for injuries sustained while working in his saw mills.

The Takush Harbor Timber Company, Limited, at a recent meeting in London, Eng., passed the following resolution: That it has been proved to the satisfaction of the directors that the company cannot, by reason of its liabilities, continue its business, and that it is advisable to wind up the same, and accordingly that the company be wound up voluntarily. Mr. Victor George Levett was appointed liquidator.

### J. D. SHIER

MANUFACTURER OF

## Lumber, Lath & Shingles

BRACEBRIDGE, ONT.

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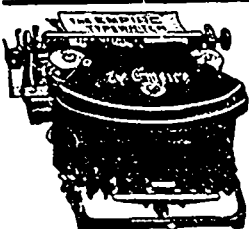
NEW AND SECOND-HAND STEEL AND iron rails for tramways and logging lines, from 12 lbs. per yard and upwards; estimates given for complete outfit.

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Ready :: **SAVES TIME**  
In Use Everywhere.

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The BEST Article Known for the Purpose

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## Wood Split Pulleys

AND Split Friction Clutch Pulleys

AND Cut-Off Couplings—In use in all the Big Mills.

Saw Mill Men, get our Prices.

## DODGE WOOD SPLIT PULLEY CO.

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345 ST. JAMES STREET, MONTREAL;  
193 COLBORNE STREET, BRANTFORD;  
and the LONDON MACHINE TOOL CO., LONDON.

Begin to call attention to their new descriptive stock taking list, just issued, which they will be pleased to send on application.

We have **Several Valuable Mill Sites** in good localities for sale on reasonable terms, consisting of a Planing Mill in a northern town, with large new building and full equipment of modern machinery, used only a few months from new;

**One Saw and Shingle Mill Outfit**—good order as last used;

**One Saw and Stave Mill**, having one 5 block Waterous iron frame Saw Mill, Engine, Boilers, and full complement of Heading and Stave Machinery, now cutting out this season's stock;

We are the Sole Canadian Agents of the celebrated **Sturtevant Improved System of Dry Kiln and Heating Apparatus**, and have on hand now for prompt delivery, one of their 120" Fans with engine attached, and 6,140' cap. Heater. This rig cost when new \$2,000.00, has only been run a short time, and will be sold at a bargain.

The A. R. WILLIAMS MACHINERY CO., Limited, Toronto

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Save your Lumber and the Cost of Insurance by equipping your Mills and Yards with the...

## BALL NOZZLE SYSTEM.

By the proper arrangement of the pipe system and the use of stand pipes with the Ball Nozzle at the top, a lumber yard may be made substantially fire-proof.

Lumber yards can be equipped thus cheaply and effectively, practically obviating the danger of conflagrations of the most destructive character, and effecting a *Large Saving in Cost of Insurance.*



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20 FRONT ST EAST  
TELEPHONE 475

THE J.C.McLAREN BELTING CO. MONTREAL



TRADE NOTES.

Messrs. Mowry & Sons, of Gravenhurst, the well-known manufacturers of saw and shingle mill machinery, have recently commenced the manufacture of "The Jubilee" printing press.

The large Jewell filters for the town of St. Hyacinthe have arrived and are being installed. These filters were built throughout by the Jenckes Machine Co., of Sherbrooke, and the work is said to reflect great credit on this firm.

In a letter to the E. R. Burns Saw Company, of Toronto, E. H. Heaps & Co., of Vancouver, pay a high compliment to the value of the saws manufactured by this firm. They state that they have just ordered a shingle machine from the Lloyd Mfg. Co., of Kentville, N.S., and have recommended that the two saws required be pur-

chased from the Burns Company, as, having made a specialty of their saws in the province, they find them to be giving the best of satisfaction, and prefer them to the American saws. Accompanying the letter is an order for two saws to be sent to a large British Columbia shingle manufacturer on approval, referring to which Messrs. Heaps & Company say: "We do not think you run much risk, as the shingle saws you have sent us lately are fully equal to, if not better, than the American saws."

In our advertisement pages the Bowmanville Rubber Co. call the attention of mill owners and operators to the merits of their Hercules rubber belting, for which they are able to show the highest testimonials. Our readers will do well to drop a post-card to the company, mentioning THE LUMBERMAN, and asking for further particulars regarding this brand of belting. The Bowmanville Rubber

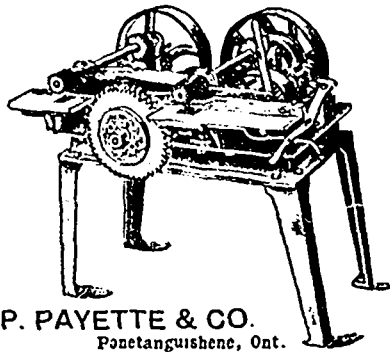
Co. has been lately reorganized, with Mr. E. J. Partridge of Toronto, as president; Mr. J. B. Martyn, of Bowmanville, vice-president; Mr. J. N. McKendry and Mr. W. L. Dingman, of Toronto, business manager and secretary-treasurer respectively. They occupy a three-story brick factory, 140 x 30 feet, with an office 21 x 34 feet, fitted with the latest mechanical appliances for the production of all classes of rubber goods.

The Winnipeg Mining & Smelting Co., of Greenwood, B. C., are developing their property, and have installed a complete mining plant, purchased from the Rossland branch of the Jenckes Machine Co., Sherbrooke, Que. The Jenckes Company report their British Columbia sales as very satisfactory. They are continually shipping to their warehouse in Rossland, where a heavy stock of mining plant is regularly carried.

During the past month the representative of a German lumber firm has been visiting all the prominent mills in Pennsylvania buying up walnut logs for shipment to Germany. His plan has been to inspect and settle for the logs before moving them. Then the ends are painted to prevent quarter-cracking, and as soon as a carload is secured they are sent to the seaboard for shipment.

Nashville, Tennessee, is shipping lumber to the Klondike. John B. Ransome & Co. received an order, through Tacoma parties, for a car of hickory about ten days ago, to go to Dawson City. Last week the same firm, says the Southern Lumberman, received an order for another car of the same stock. It is five, six, and eight-quarter boards, and is to make sled runners. The freight on it to Tacoma is about \$50 per thousand, and probably the charges for the remaining three thousand miles of the haul will add another \$25. This will make it pretty high-priced hickory f.o.b. Dawson City, but a man can afford a swell "slide" on which to haul gold nuggets.

PAYETTE'S PATENT LATH MILL



P. PAYETTE & CO. Pointangushene, Ont. SAW MILL MACHINERY

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MACHINE KNIVES OF EVERY DESCRIPTION FOR Woodworking Machines ... Send for Price List ... PETER HAY - - - - - Galt, Ont.

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If you are not satisfied with your present site, or if you are not doing quite as well as you would like to, why not consider the advantages of a location on the Illinois Central R. R. or the Yazoo & Mississippi Valley R. R.? These roads run through South Dakota, Minnesota, Iowa, Wisconsin, Illinois, Indiana, Kentucky, Tennessee, Mississippi and Louisiana, and possess

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Close proximity to COAL FIELDS AND DISTRIBUTING CENTERS AND INTELLIGENT HELP OF ALL KINDS MANY KINDS OF RAW MATERIAL

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To sound industries, which will bear investigation, substantial inducements will be given by many of the places on the lines of the Illinois Central R. R., which is the only road under one management running through from the North Western States to the Gulf of Mexico. G. O. C. POWER, Industrial Commissioner I C R R Co., 506 Central Station, Chicago.

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SIXTEEN

REASONS,

AND HOW TO

AVOID THEM



Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

A book filled with valuable information on the care of band saws. Giving the reasons for breaking: analyzing each reason; giving instructions to dispense with the causes as laid down in each reason, and full details on filing and brazing. The proper styles of hammers to use are illustrated and described, and views of blades showing the blows of the different styles of hammers form an important part of the illustrations. Improper and unequal tension are then treated, and the manner of properly setting irregular teeth is described. In connection with the treatise is a history of the invention, manufacture and use of the saw from its origin to the present time. The work in whole makes an accumulation of information such as has never before been published.

The book is printed on fine paper, good clear type, and is handsomely and substantially bound in cloth. It will be sent to any address on receipt of the price ONE DOLLAR.

Address CANADA LUMBERMAN, Toronto Ont.

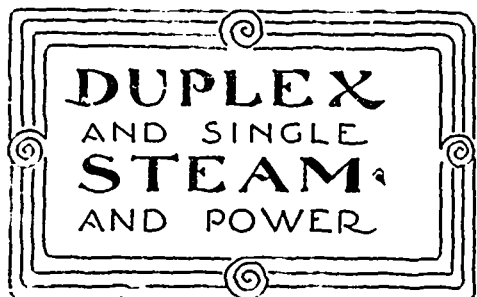


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This Axe stands better in frosty weather than any axe made. Send for sample. Can supply any pattern.

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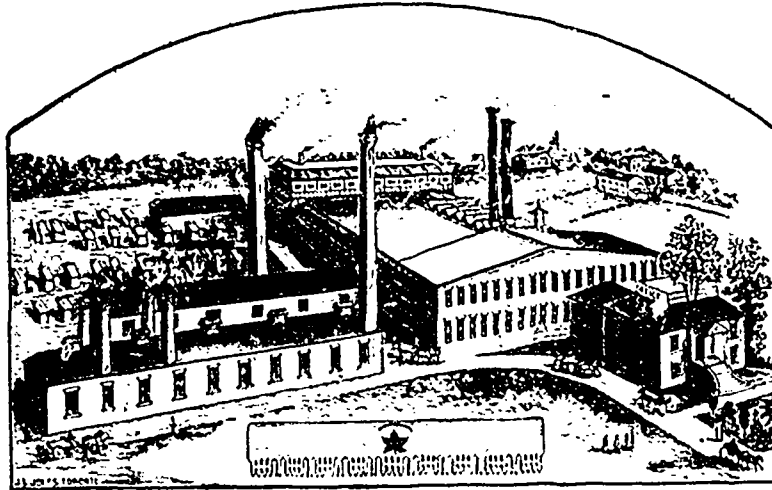
# MAPLE LEAF SAW WORKS



Shurly &  
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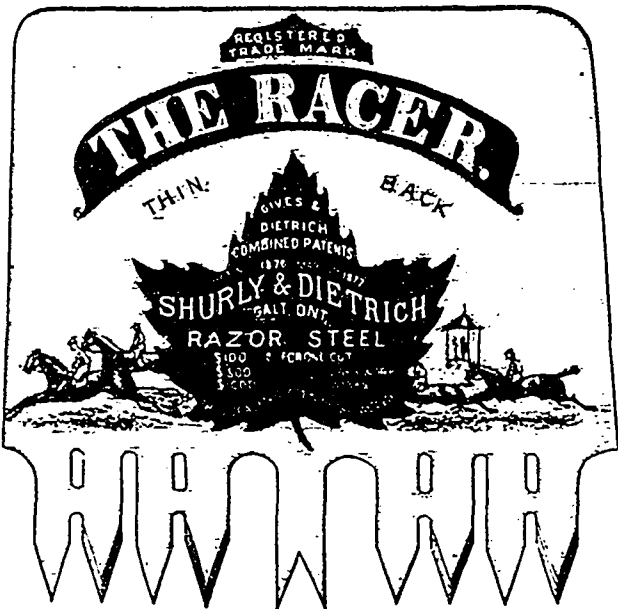
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GROUND THIN ON BACK

- Save Labor
- Save Time
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## This Saw Stands Without a Rival

AND IS THE

**FASTEST CUTTING SAW IN THE WORLD!**

Its Superiority consists in its Excellent Temper. It is made of "Razor Steel," which is the finest ever used in the manufacture of Saws. We have the sole control of this steel. It is tempered by our secret process, which process gives a keener cutting edge and a toughness to the steel which no other process can approach.

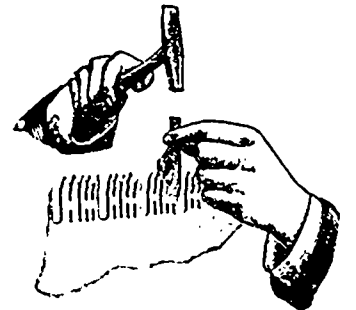
## Maple Leaf Saw Set

MANUFACTURED BY

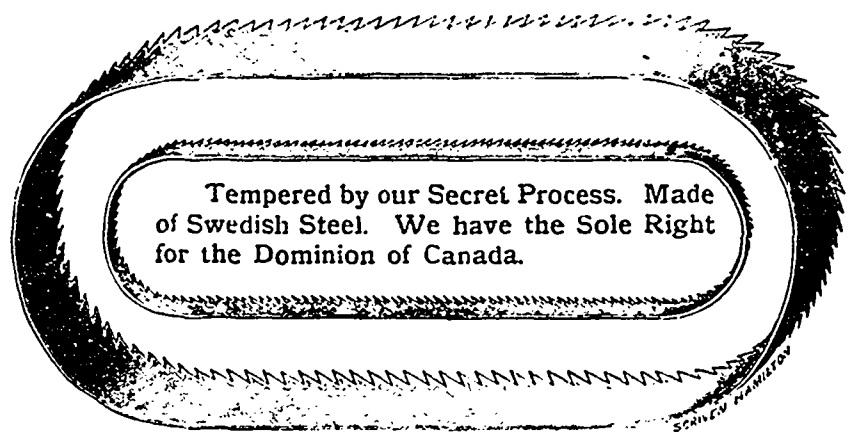
SHURLY & DIETRICH, Galt, Ont.

Directions - Place the set on the point of tooth, as shown in the accompanying cut, and strike a very light blow with a tack hammer. If you require more set, file the tooth with more level.

If you follow directions you cannot make a mistake. Be sure and not strike too hard a blow, and it will set the hardest saw. On receipt of 40 cents we will send one by mail.



We are the only manufacturers in the world who export Saws in large quantities to the United States.



Tempered by our Secret Process. Made of Swedish Steel. We have the Sole Right for the Dominion of Canada.

We Manufacture

# HIGH GRADE BAND SAWS

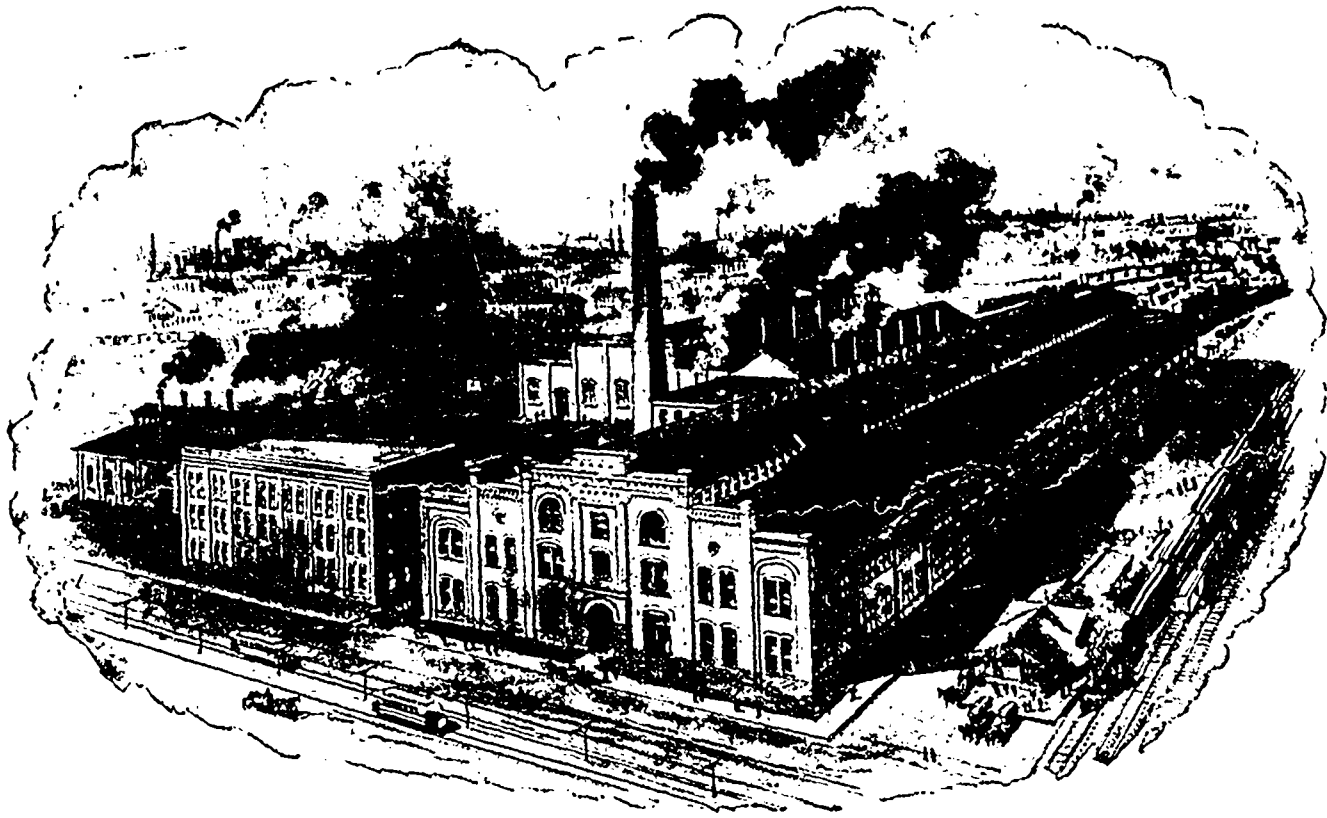
of All Widths and Lengths.

These Saws are made of Refined Swedish Steel imported direct, and tempered by our Secret Process; for Fine Finish and Temper are not excelled.

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Over 50 Years of Uninterrupted Advance.

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Fifty years ago we supplied the pioneer upright sawmills to the Canadian lumbermen. These were quickly supplanted by the speedy but wasteful circular saw, these by the faster gang, with its disregard of qualities, and now the economical band sawmill, combining speed and economy, has full sway. We are always to be found in the advance guard in the march of improvements.

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Is the name we ask you to remember  
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**ENGINES, BOILERS, FRICTION GRIP PULLEYS.**  
Brantford, — Canada.

Our Saw-Mills are in Successful Operation all over Canada, Central and South America, Australia, Europe and the East. Write or wire for prices and date delivery.

A B C AND LEIBER'S CODE USED.

Now is the time to consider the important change from a Circular or Gang to the

## ALLIS BAND MILL

Recently a customer, who had steadily refused to abandon the wasteful circular, ordered an "ALLIS" BAND MILL. On enquiring the cause of his sudden change he replied, "I never believed in a band mill till this fall. I had a stock of a million feet cut at a neighbor's mill with one of your Allis Band Mills, and was simply astounded at the quantity of lumber I received, and its handsome appearance."

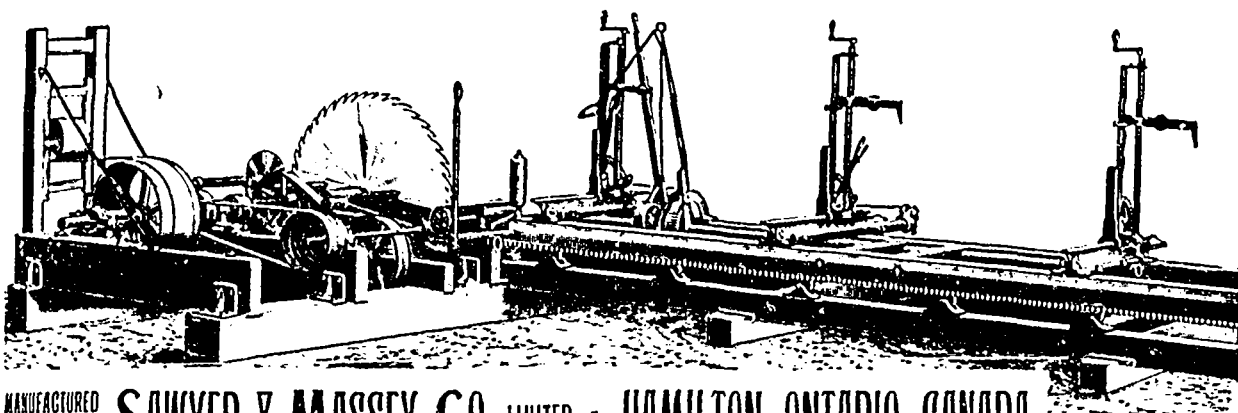
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WRITE US TO-DAY

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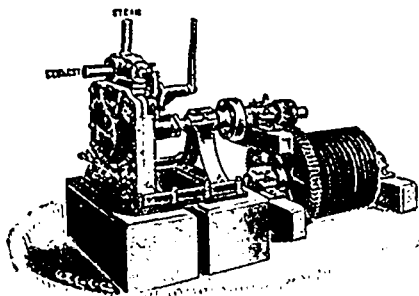
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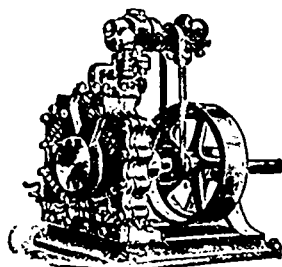
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The movement of the engine in either direction is under the absolute control of the Sawyer, thus accommodating the speed of the feed to the size of the log.  
Mill men who have used other makes of Steam Feeds comment favorably on the economical use of steam of our feed over others.  
Write for Catalogue and full particulars.

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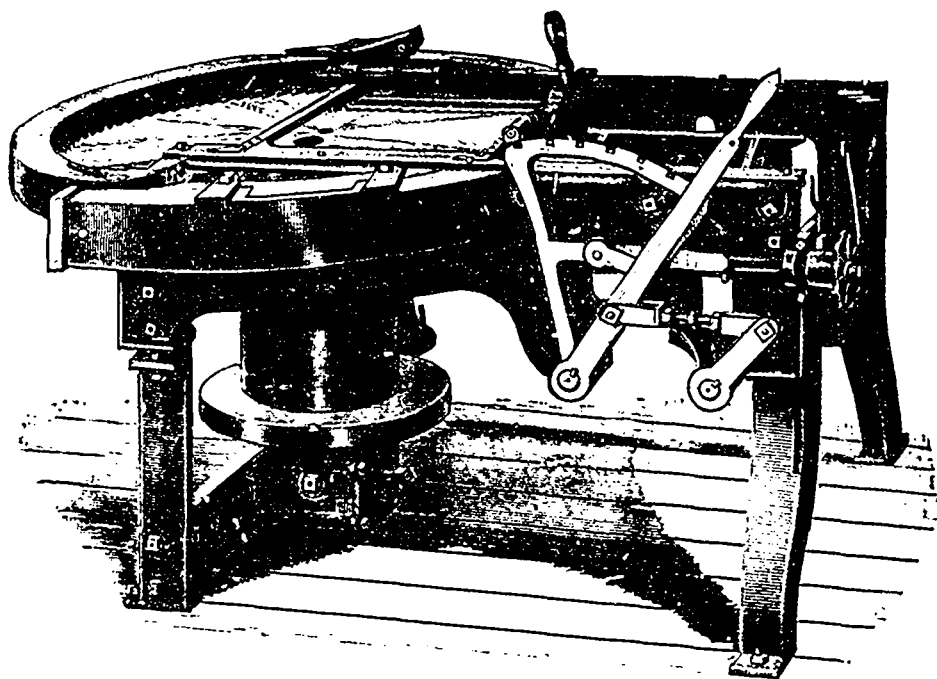
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### Manufacture

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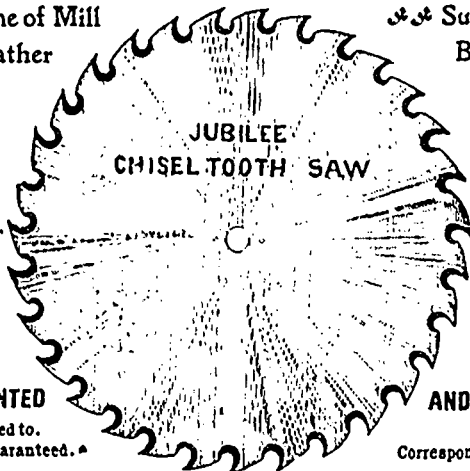
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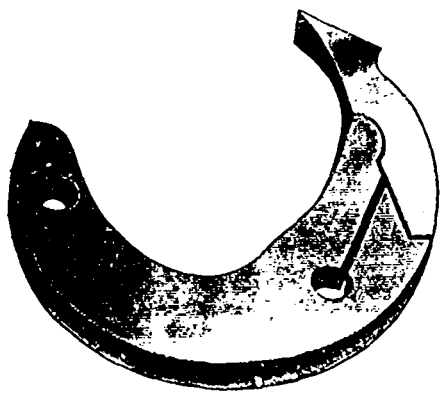
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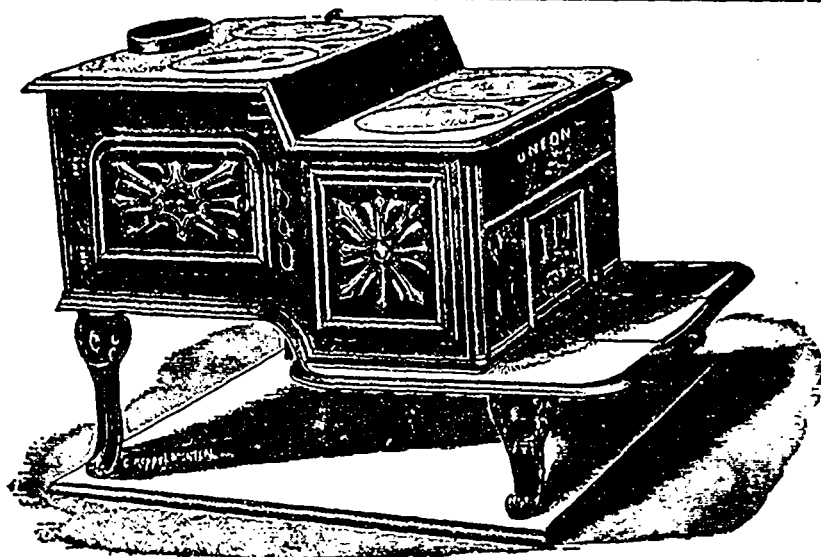
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