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THE CANADA LUMBERMAN

Wood-Workers', Manufacturers' and Millers' Gazette

TORONTO, CANADA, MARCH, 1901

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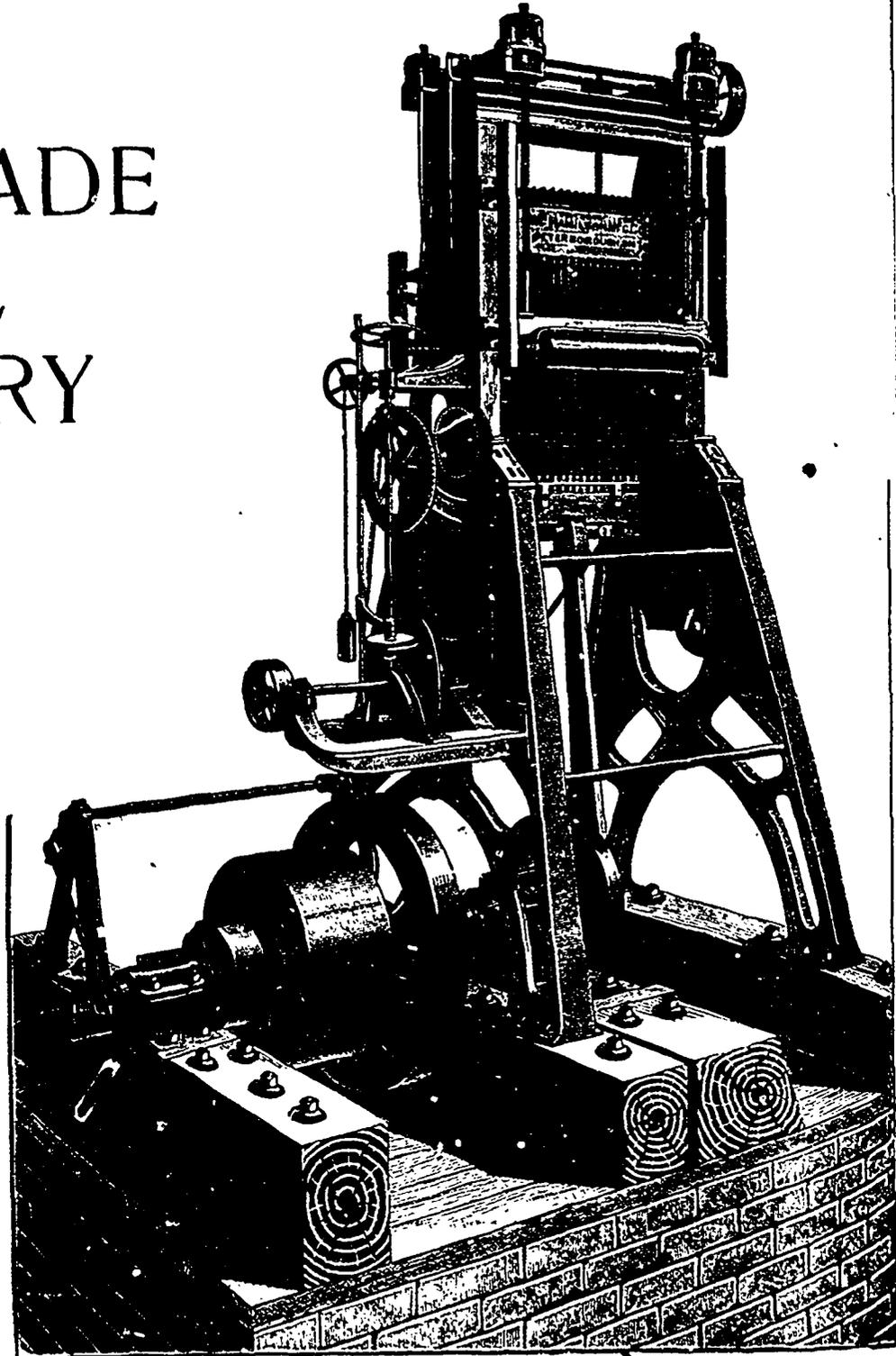
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MILL STREAM, QUE., on I. C. R'y, December 17th, 1894.

R. H. SMITH CO., LTD., St. Catharines, Ont.

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Yours very truly, JAMES MCKINLAY.

CAMPBELLTON, N.B., Nov. 17th, 1894.

R. H. SMITH CO., LTD., St. Catharines, Ont.

DEAR SIR,—In regard to your Shingle Saws, you can say that I have been using Shingle Saws of your make (Simonds) for the past four years, and they have given good satisfaction. I am running nine machines and use a good many saws, but have never had a saw yet that did not work satisfactorily. Before using your saws I used saws of American make, which worked well, but after giving your saw a trial have continued to use yours, as they are cheaper, and in regard to working qualities are all that is needed.

Yours truly, KILGOUR SHIVES.

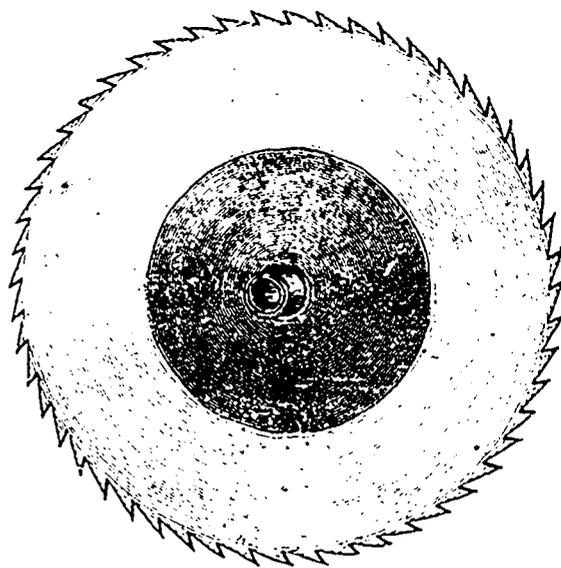
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GENTS,—In reply to your letter asking me how I liked the 62" SIMONDS Saw, I must say in all my experience I never had a saw stand up to its work like the one purchased from you last month. Having used saws for the last 22 years, and tried different makes, I can fully say it is the best saw I have ever had in my mill, and would recommend the SIMONDS' Process Saws to all mill men in need of circular saws.

Yours truly, W. G. SIMMIE.

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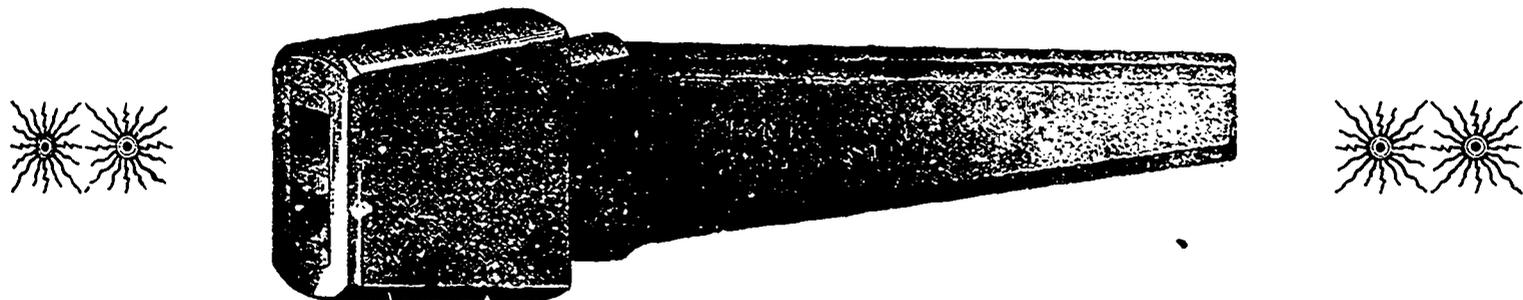


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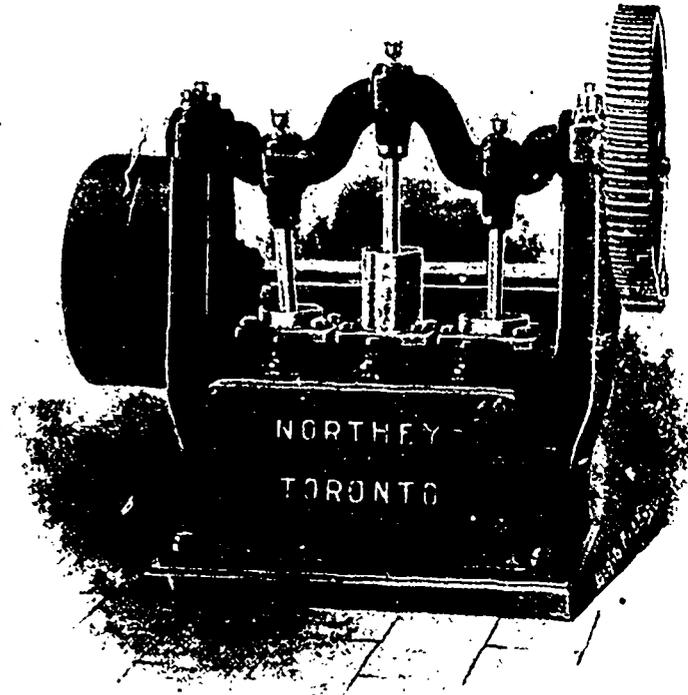
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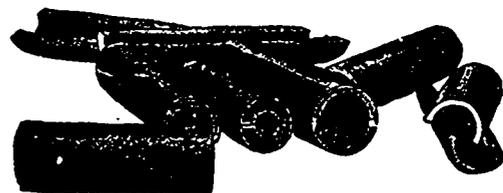
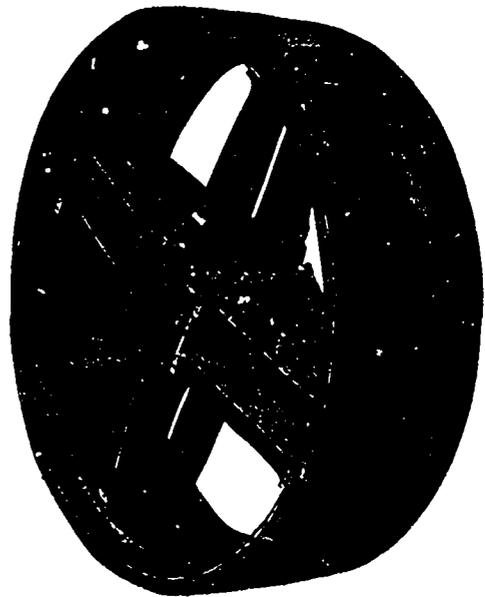
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THE CANADA LUMBERMAN

TORONTO, CANADA, MARCH, 1901

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MR. JOHN ARBUTHNOT.

The present chief municipal officer of the city of Winnipeg is an esteemed representative of the lumber trade, in the person of Mr. John Arbuthnot, whose features are portrayed on this page. Mr. Arbuthnot was born at St. Catharines, Ont., and was educated at the public school there. Leaving St. Catharines in 1882 he engaged with the late John Ross, contractor, with whom he worked on C.P.R. construction on the north shore of Lake Superior. In 1885 he carried out a contract on the Northern Pacific Junction Railway in Muskoka, and in 1887 another on the Milwaukee Northern Railway in Wisconsin.

In the year 1888, Mr. Arbuthnot started in the lumber business in connection with the Western Lumber Company at Rat Portage, Ont., and in the spring of 1892 established a wholesale and retail lumber business in the city of Winnipeg, which he still conducts.

Mr. Arbuthnot served as Alderman for Ward 5 in 1897 and 1898, and in the latter year was chairman of the Board of Works. He was elected as Mayor of the city at the last municipal elections.

CONSUMPTION OF RAILWAY TIES.

How many railroad ties are used annually in the United States is a question which is often propounded, but on which there are no exact statistics. There are about 205,000 miles of main line track in the United States at the present time. It is estimated by railroad men that about 400 ties to the mile are each year required for replacements, the average number of ties to the mile is 2,800, and the average life of a tie is seven years. There is therefore required on the present railroad mileage of the country about 82,000,000 ties annually for replacements, with another 14,000,000 needed for new track, assuming that the construction is about 5,000 miles annually. There is thus a total use in sight of about 96,000,000 ties a year. Something over a year ago it was estimated that of the 80,000,000 ties then said to be used for renewals each year, 45,000,000 were of oak, 12,500,000 of pine, 3,500,000 of chestnut, 5,000,000 of cedar, 2,500,000 of hemlock and tamarac, 2,500,000 of redwood, and 1,500,000 of cypress.

Ross & Taylor, of Exeter, Ont., intend building a new planing mill in the spring.

A suit involving about \$400,000 was recently heard in the Superior Court at Hull, this sum being the amount claimed to be due Mrs. F. Dezouche, of Bryson, by Alex. Fraser, of Ottawa, for the alleged improper sale of a timber limit. Mr. Fraser maintains that the limit was legally and advantageously sold.

REQUISITION FOR IMPORT DUTY.

FOLLOWING is a copy of the memorial presented to the Dominion Government by the British Columbia Lumber & Shingle Manufacturers' Association asking for a duty on lumber imported from the United States:

Right Hon. Sir Wilfrid Laurier, G.C.M.G., P.C.
Premier, and Members of the Dominion Government:

Sirs,—On three former occasions in 1898, 1899 and 1900, we, the Lumber and Shingle Manufacturers of British Columbia, have ad-

present tariff, being, we believe, the only manufacturing industry in Canada which is left totally without protection in our own home markets, whilst contributing largely to the more prosperous conditions of other manufacturers and producers whose manufactures we use, and for which we pay enhanced prices consequent on the protection which they enjoy under the present existing tariff from the competition and cheaper price of like manufactures and productions in the United States.

Our industry contributes largely to the revenues of both Dominion and Provincial Governments in timber dues and by customs duties on all machinery and supplies used in the production of our commodities, or, as we have already pointed out, we contribute to the prosperity of manufacturers of machinery and saw mill supplies of all kinds, and to that of millers and farmers by paying to them higher prices as before referred to, and to that of railways by the carriage of these supplies and of our own productions. On the other hand, when a contractor requires timber for some important Government work such as a canal or bridge, a railway for bridge or trestle work, a manufacturer for a new factory or mill, or a farmer for a new barn or dwelling, and we ask for our production a mere living price, we are met with the reply that pitch pine from the United States can be obtained at cheaper prices, or pine from Minnesota can be got at less cost, and that even our own description of lumber can be bought cheaper on Puget Sound, which may be possible, as they can produce cheaper, because all their supplies cost less.

The above is not a distorted representation, but the true state of our trade, and we trust that it may clearly show the injustice of the conditions under which our business lies.

We have had to base the prices of our productions on those of producers who have advantages towards cheap manufacture which we do not possess. The imposition of a duty on lumber and shingles is not sought for as a means of increasing prices, and competition between the many Canadian producers would prevent this if attempted, but the United States manufacturers having a protected home market of their own in which they make every effort to maintain prices, regularly disturb our conditions and prices by using our Canadian markets as a dumping ground in which to unload their surplus stock at prices below what they will accept in their own markets, or at which we can, under present conditions, manufacture, and it is from this unfair competition we ask protection.



MR. JOHN ARBUTHNOT, WINNIPEG.

dressed you on the subject of the anomalous and unfair conditions under which we have to carry on our trade, in the hope that some alleviation of these conditions would be effected by legislation in the direction of the imposition of customs duties on lumber and shingles imported into Canada from the United States.

We have to regret that so far nothing has been done with reference to this matter, which is of so much vital importance to us that we are forced again to bring the subject to your notice, in the hope that conditions may now permit of a favourable consideration of our desires.

The chief burden of our complaint is that our trade is unfairly discriminated against under the

The unfairness and anomaly existing in the before described condition is still further intensified by the position that not only is our Canadian home market open and free to the manufacturers of the United States, from whom neither Dominion or Provincial Governments derive any financial support, nor do they aid in the development of our country; but our products are shut out of their country by the duties imposed on them of \$2 per 1000 feet of lumber, and 30 cents per M. on shingles.

It is a recognized fact that the extension of this market and consequent increase of the volume of business done, assists the manufacturer in reducing the cost of production, and it is to this that we look for an improvement in our condition if our own markets are protected from invasion, but it can never be attained under present existing circumstances.

While we have to compete with our neighbors to the south in the markets of the world common to us both, a considerable portion of our product not suited to foreign trade must be disposed of at home, and this our mills cannot do, so that in foreign trade also we are handicapped, as the lumber produced for that branch of the business has to bear to some extent the loss on the other, and producers find themselves loaded with an ever increasing surplus for which it is impossible to find a sale.

On the other hand, the manufacturer in the United States has the markets of the world at large and of Canada open to him on the same terms as ourselves, and in addition has his large home market from which we are practically debarred.

We are not afraid of competing with the United States manufacturer on even terms, that is to say, on the terms of free lumber between both countries, but we must denounce in the strongest terms the unfairness of the one sided relations which now exist.

Instead of the manufacture increasing in our own country, the tendency is towards establishing new plants in adjoining United States territory, and this has already been done, the raw material being derived from British Columbia, manufactured in the United States, and thus has the advantage of both United States and Canadian markets. The inducement towards such a course must be so evident that we trust your Government will see the advisability of taking measures to obviate Canadians being driven to such an alternative.

We would respectfully again urge the propriety and necessity of imposing a duty on lumber and shingles entering Canada from the United States equal to that levied by the United States on the same products when entering the United States from Canada, which at present is \$2 per 1000 feet on lumber, and 30 cents per M. on shingles; to be lessened or abolished when it is made to appear to the Governor General in Council that such course has been taken by the Government of the United States.

We feel that the imposition of an import duty on such terms should be due to our own dignity as a country, would be of general benefit not only to the trade, but to the people and country at large, without inflicting a hardship on any.

We again beg to urge on the Government through you that the unanimous wishes of our

industry throughout the Dominion receive your practical consideration during the coming session of Parliament.

We have the honor to be, Sirs,

Your obedient servants,

(Signed) JOHN HENDRY, President,
HILTON KEITH, Act. Sec'y,

B. C. Lumber & Shingle Manufacturers' Association.

VANCOUVER, B. C., January 16th, 1901.

INCREASED COST OF PRODUCING LUMBER.

The increase in the wages paid in the lumbering industry in the past three or four years has been very marked, as is shown by the statistics published by the Labour Gazette, which we give below. The standard of living has also been raised, and the cost of producing lumber seems to be increasing each year.

The following summary of the wages list of a leading firm on the Georgian Bay shows an increase of nearly 60 per cent. in the wages of woodsmen between 1896 and 1900, as follows:—

IN THE WOODS.	
1894-5-6 wages about \$16 to \$18 with board per month.	
1897-8	18 to 20
1898-9	26 to 28
1900-1	26 to 30

MONTHLY WAGES (WITH BOARD) OF MEN EMPLOYED IN THE WOODS AND ON THE DRIVES.

DISTRICT.	IN THE WOODS.					ON THE DRIVES.	
	Foremen.	Log-cutters.	Teamsters.	Road-masters and Shanty hands.	Cooks.	Tug hands.	River Drivers.
Nova Scotia (generally).....	\$ 40	20 to 26	20 to 26	12 to 20	25		\$ 1.00 to 2.00 (per day)
New Brunswick (generally).....	50	24	24	20	28 to 30	35	1.75
Quebec (generally).....	40 to 60	18 to 26	24 to 26	19 to 22	25 to 40	20 to 55	30 to 36
Ottawa Valley.....	50 to 75	26 to 28	25 to 26	18 to 24	40 to 45		
Parry Sound.....	70 to 75	24 to 26	26 to 28	20 to 20	40 to 50	30 to 40	35 to 40
Muskoka.....	45 to 50	24 to 26	28	24 to 26	40 to 60		10 to 45
Georgian Bay.....	45 to 60	24 to 26	26	22	45 to 50	25 to 75	36
Rainy River.....	75	26 to 30	26 to 30	26 to 30	45 to 50	2.00 (per day)	45
Manitoba.....	80 to 100	26 to 32	26 to 32	25	40	1.50 to 1.75 (per day).	1.75 to 2.00 (per day)
British Columbia.....							

In the case of river drivers, the increase has been nearly 50 per cent. in the past two years. Where two years ago they were paid from \$28 to \$30 per month with board, they were paid last year \$40 per month with board.

In the mills the increase in the case of the employees of this firm appears from the following summary:—

	1897-8.	1898-9.
Foreman.....	\$ 2.50 per day	\$ 3 per day
Sawyer.....	2.50 to \$3 per day	3 to \$4 per day
Filer.....	2.50 to 3	3 to 4
Setter.....	30 to \$35 per month	35 to \$40 per month
Edger.....	30 to 35	35 to 40
Trimmer.....	32 to 35	35 to 45
Pilers.....	30 to 35	35 to 40
General labourer.....	26 per month	25 to \$1.50 per day
Firemen.....	1.50 to \$1.75 per day	1.50 to \$1.75 per day

The following statement of the wages bill on the Parry Sound district, supplied to the Department by a lumberman of experience, shows that in that region the sharp advance has taken place within the past year:—

	IN THE MILL—Average wages per month without board.					
	1895.	1896.	1897.	1898.	1899.	1900.
Sawyers.....	\$ 70	70	70	75	85	85
Edgers.....	40	40	40	45	50	50
Setters.....	40	40	40	45	50	50
Filers.....	100	100	100	100	100	100
Book-keeping ..	40	40	40	40	45	45
Foremen.....	75	75	75	75	80	80
Yardmen.....	25	28	28	28	30	32
Inspectors.....	50	50	50	50	55	55
Engineers.....	45	45	45	45	50	50

IN THE WOODS—Average wages per month with board.	
Foremen.....	\$ 60
Log cutters.....	18 to 22
Teamsters.....	20 to 26
Road makers and shanty hands	16 to 20
Cooks.....	40
On the Drive.	
Tug hands.....	30 to 35
River drivers.....	28 to 32

PREVAILING RATES OF WAGES.

The wages of workmen in the several departments of the lumbering business and in different parts of Canada are set forth in the following tables. In each of the three groups of men there are a number specially skilled who command high wages. Thus in the mills there are men in charge of the saws, the men who take the saws in repairs, and the men who have to use considerable judgment in the matter of selecting lumber of different grades. So also in the woods and on the drives skilled men command relatively high wages. Besides the large mills there are large numbers of small mills engaged in sawing up hard wood and other lumber generally obtained locally and in working up special products. In such cases a somewhat different division of labour is observed requiring separate treatment. A large number of men, especially in central and western Ontario, from which returns have been received, are of the class.

In above table of wages in the woods and on the drives, quotations are given of the amount paid in several of the best known groups of occupations. A number of special cases exist, as for example in the 'square' timber or 'waney' timber camps, where men with a special training in the selection and cutting of the trees required for this class of timber are paid more than ordinary woodsmen. Thus in the Ottawa Valley 'square' and 'waney' timber camps, the 'header' receives \$60 per month and the 'liner' \$40. In addition to the groups of woodsmen above given, there are the 'loaders' who receive \$20 per month. The camp blacksmith usually receives about \$35 per month, and the 'handy man' (carpenter, &c.), from \$28 to \$30.

In British Columbia the divisions of woodsmen are different. The following statement shows the wages paid per hour to the several classes of men employed in the woods by a company operating in Vancouver:—

Head skidder, 30 cents per hour; hock tester, 35 cents; undercutter, 30 cents; head faller, 30 cents and 30 cents; second faller, 27½ cents; head loader, 27½ cents; donkey engineer, 27½ cents; bucker, 27½ cents; second loader, 25 cents.

...; sniper, 27½ cents; second hock tender, ... cents; head marker, 22½ cents; head ... per, 30 cents; sand road man, 22½ cents; ... 20 cents.

STANDARD OF LIVING.

... of the marked changes in the lumbering ... in recent years has been the improve- ... in the standard of living provided for the ... in the camps. The reports received from the ... in this regard appear to be borne out ... by the men themselves. A wholesome diet ... plenty of it, is the general verdict. The ... summary of the bill of fare in the several ... has been supplied by the companies ... themselves:—

- ... Scotia.—Beef, pork and beans, molasses, fish, tea, coffee, sugar, &c. Living expenses ... hands who support themselves cost about ... per week.
- ... Brunswick.—Pork and beans, fresh beef, fish, potatoes, bread, ginger bread, butter, ... sugar, molasses, tea.
- ... Quebec.—Beef, pork, beans, peas, bread, ... canned goods, molasses, tea.
- ... Ontario.—Bacon, fresh beef, fresh pork, pastry, ... butter, pudding, syrup, tea, sugar, beans,

from the shanty before daybreak and return after nightfall.

THE NATIONAL HARDWOOD LUMBER ASSOCIATION.

THE Inspection Bureau Committee of the National Hardwood Lumber Association held a meeting in Cincinnati, Ohio, on January 24th, at which an interesting report was submitted by Mr. M. M. Wall, of Buffalo, the surveyor-general of the association. This report in part is given below:

Four million six hundred and seventy-five thousand feet of lumber has been inspected to date by Association inspectors, mostly in small shipments, and for our members who have had a few cars done at a time, mostly in the way of experiment, but the amount of work for the inspector is increasing daily, as our members who have used the Association inspectors express themselves as highly pleased.

In pushing this work, I find all classes of lumber men appreciate the value of the Inspection Bureau. We are filling a long-felt want in the trade, but I wish to impress upon the honorable chairman and members of this committee and of the hardwood lumber trade at large, that they owe it to themselves and to me to support this movement by giving us every bit of work possible. The Inspection Bureau is doing a great work for the hardwood trade, a work that is of benefit to every legitimate trade interest, and all that is required to make a success

Different conditions exist in different localities, and I have taken the liberty to make such changes as I have considered advisable, and I trust that my action in these matters will meet with the approval of your honorable committee. In pushing this work I have received the hearty support and co-operation of the trade press, which has rendered me every assistance possible, and which has shown itself fully alive to the great importance of the work which we are doing. For this assistance I wish, on behalf of the association, to extend thanks. The members of the lumber trade in all markets also have shown me every courtesy possible, and I feel very much encouraged that the task of establishing a national, uniform and guaranteed inspection of lumber, is almost an accomplished fact. There is one criticism that I have to offer, however, and that is regarding the tendency of some members to use our inspectors and this bureau only when they are in trouble. This places on the inspection bureau the responsibility of settling the difficult matters, to which we do not object, as we are here to help our members when in trouble; but if our members would use the national inspectors when making their sales and shipments of lumber and for the general run of their business, it would materially assist the work in which we are all so much interested, and at the same time save themselves any possibility of misunderstandings, loss and litigation.

In concluding my report, I wish to state that the work of establishing an inspection of lumber which shall be on a par with the inspection of other commodities; which shall do justice to the buyer and seller; which shall guarantee that the goods sold shall be delivered as sold; which shall make a lumber contract mean what it says, is progressing satisfactorily. It is a great work and may not be done in a day or a year. Our members must remember that the inspection bureau was evolved from nothing, and they must bear with our mistakes and shortcomings patiently. We are doing the best we can. When our members make their contracts, let them be based on national inspection and the work be done, when possible, by a bonded national inspector.

I am convinced that our work can be made a success. Our plan is right, and all we need is the undivided support of the good people in the lumber trade.

TRAVELLING LIBRARIES.

A LITTLE booklet has been issued entitled "Library Extension in Ontario," giving a brief history of the movement to establish travelling branch libraries in lumbering and mining camps, a statement of the work so far undertaken, and expressions of opinions from the Minister of Education, the leading lumbermen and others as to the advantages to be derived from such libraries. Objections were raised by a few that many of the men engaged in these industries could not read intelligently, and that the hours of labor were necessarily too long to admit of reading or study. To give the experiment of good literature in the camps a fair trial an extra building has been put up at two camps, five and twelve miles respectively from Nairn Centre, and a third twenty-one miles south of White Fish station. The first mentioned is at a camp operated by the Victoria Harbor Lumber Company, the second at one of Edmund Hall's camps, and the last at J. J. McFadden's camp. Branch libraries in French and English from the Nairn Centre public library have been placed in these reading camps, and one of the McGill University travelling libraries will be circulated in the Victoria Harbor camp No. 2. Weekly and daily newspapers, illustrated magazines, and other suitable literature have been placed at the disposal of the men, who are being urged to improve their spare moments and to ask help from the nearest neighbor.

The shanties in question are built of different sizes and designs so as to ascertain the most suitable building for the purpose. The movement, in which Mr. Alfred Fitzpatrick, of Nairn Centre, is largely interested, is meeting with success from all directions, and promises to be of great benefit to employees in lumber and mining camps.

The public is given an opportunity of co-operating in the movement by sending contributions of money or literature to Mr. W. J. Bell, lumberman, Nairn Centre, who is acting as treasurer pro tem.

—The lumber surveyors of St. John, N.B., have formed themselves into an association. F. E. Hill is president, F. Langan vice-president, Herbert McAlphon secretary, and C. Robinson treasurer.

WAGES (DAILY) OF MEN EMPLOYED IN SAW MILLS.

District	Surveyors	Setters	Filers	Edgers and Trimmers	Book-keepers	Foremen	Sorters	Yardmen	Engineers	Inspectors	Others
Scotia (generally)	1.50 to 3.00	2 to 3	1.25 to 2	600 (per year)	700 to 1,000 (per year)	35 to 40 (per month)	40 (per month)	2.00	1.50	1.00 to 1.25	1.00 to 1.25
Quebec (generally)	1.75 to 2.50	2.50	1.25 to 2.25	1.10 to 1.75 (per month)	1.50 to 3.50 (per month)	1.50 to 2.50 (per month)	0.50 to 1.50 (per month)	1 to 1.50 (per month)	1.50 to 2.00 (per month)	1.50 to 2.25 (per month)	2.00 to 2.25 (per month)
Ontario (generally)	2.75 to 3.50	1.50 to 2.50	2 to 4	1.25 to 1.75 (per month)	1.50 to 3 (per month)	1.25 to 3 (per month)	1 to 1.75 (per month)	1 to 1.60 (per month)	1.50 to 2.00 (per month)	1.50 to 2.25 (per month)	1.00 to 1.25 (per month)
Manitoba	3.50	2.00	2.50 to 4	1.50 to 1.75 (per month)	1.50 to 2.50 (per month)	2 to 3.50 (per month)	1.35 to 1.50 (per month)	1.50 (per month)	2.00 (per month)	2.00 (per month)	1.25 (per month)
British Columbia	3.00	1.50	3 to 4	1.75 (per month)	2.00 (per month)	2.50 (per month)	1.50 (per month)	1.40 to 1.50 (per month)	2.00 (per month)	2.50 (per month)	1.35 to 1.50 (per month)
Manitoba Bay District	50 to 60 (per month)	42 to 48 (per month)	65 to 130 (per month)	45 to 65 (per month)	75 to 150 (per month)	75 to 125 (per month)	45 (per month)	32 to 50 (per month)	50 to 65 (per month)	50 to 75 (per month)	28 to 30 (per month)
Manitoba Bay District	3 to 4 (per month)	35 to 40 (per month)	3 to 4 (per month)	35 to 45 (per month)	3.00 (per month)	3.00 (per month)	35 to 40 (per month)	3.00 (per month)	3.00 (per month)	3.00 (per month)	1.25 to 1.50 (per month)
Manitoba Bay District	4.00 (per month)	2.25 (per month)	4 to 5 (per month)	2.75 (per month)	300 to 1,500 (per year)	4 to 5 (per month)	1.75 (per month)	1.80 to 2 (per month)	2.45 (per month)	3.00 (per month)	1.50 to 1.75 (per month)
Manitoba Bay District	3.00 to 4 (per month)	2.50 (per month)	3.00 to 4 (per month)	2.25 to 2.50 (per month)	75 to 100 (per month)	75 (per month)	2.30 to 3.00 (per month)	2.50 to 2.75 (per month)	2.50 to 3.50 (per month)	2.50 to 2.75 (per month)	1.75 to 2.00 (per month)

... currants, raisins, figs, prunes, dried apples, ... cabbages, carrots, onions, turnips, &c. ... of the firms give a greater variety than ... but few complaints come from the em- ... of any.)

Manitoba.—Beef, pork, beans, potatoes, car- ... turnips, soups, bread, cakes, dried apples, ... and occasionally pies.

British Columbia.—Food supply reported as ... as average hotel in district; fresh meat, ... vegetables, canned and dried fruits, &c.

Generally, excepting for clothing, tobacco and ... dentals, the men have everything found for ... and there is a good prospect of saving. In ... cases, however, the men tend to be ex- ... rant upon coming out from the camps and ... and much of their savings before securing ... der employment. Others manage to save ... \$40 to \$80 and sometimes more as the re- ... of the season in camp.

There is no general rule regarding hours of ... er, the duration of daylight being the chief ... rmining factor regulating the working day. ... the mills, the usual day's work covers from ... to 11 hours. In the woods and on the drives ... working day lasts from daylight until dark. ... some cases where the field of operation is ... distance from the camps, the men start

of our undertaking is that the members of the lumber trade, manufacturers, dealers and consumers, shall lend this bureau their support.

It has been difficult to secure the services of men of the standing and ability which the bureau requires, to act as inspectors, and it is absolutely necessary that the members of this association shall give them every bit of work possible, as there are no salaries attached to any of these positions; and as the inspectors are paid entirely by the fees, it remains with the members to make their positions remunerative, and if they are not made remunerative, the services of the best men cannot be had. I cannot too strongly impress this matter upon the attention of our members. If the inspection bureau, with all of its great possibilities for good, is to become a permanency, the members of the National Hardwood Lumber Association must assist the inspection bureau and myself, by lending us the strongest support possible.

Our inspection bureau has been indorsed by every lum- ber market in the United States with the exception of New York and Boston. In these two markets I have spent a great deal of time and effort, without having as yet produced any tangible results. I earnestly recom- mend this committee to take some action at this meeting which it believes will have the effect of bringing these great markets into line with our movement.

If we cannot secure the co-operation of the lumber trade associations of these markets, I believe it would be ad- visable to establish national inspectors, duly licensed and bonded in these markets, who shall have the unqualified support and backing of our Association.

In working out the details of organization, I have found it necessary to make certain changes in our plans outlined by this committee for the government of the bureau.

THE Canada Lumberman

MONTHLY AND WEEKLY EDITIONS

PUBLISHED BY

The C. H. Mortimer Publishing Company
of Toronto, Limited

CONFEDERATION LIFE BUILDING, TORONTO

BRANCH OFFICE:
IMPERIAL BUILDING, MONTREAL

The LUMBERMAN Weekly Edition is published every Wednesday, and the Monthly Edition on the 1st day of every month.

TERMS OF SUBSCRIPTION:

One Copy, Weekly and Monthly, One Year, in advance..... \$1.00
One Copy, Weekly and Monthly, Six Months, in advance..... .50
Foreign Subscriptions, \$2.00 a Year.

ADVERTISING RATES FURNISHED ON APPLICATION

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

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

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in anyway 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.

IN COMMON WITH LOYAL SUBJECTS OF THE EMPIRE THROUGHOUT THE WORLD, WE DEEPLY DEPLORE THE LOSS OF THE GRACIOUS SOVEREIGN WHOSE LONG AND GLORIOUS REIGN CAME TO A CLOSE AT OSBORNE PALACE ON JANUARY 22ND, 1901. "SHE WROUGHT HER PEOPLE LASTING GOOD."

JUSTICE FOR CANADIAN LUMBERMEN.

Mr. W. H. Bennett, M. P., has given notice in the Dominion Parliament that he will introduce the following resolution: "That in the opinion of the House a duty should be levied upon lumber imported into Canada corresponding with the existing United States duties." How this resolution will be received by the legislators cannot even be surmised. The fact that the Government has turned almost a deaf ear to the representations of the lumbermen in this direction in the past is not a hopeful indication; but the sentiment in favor of an import duty is gradually growing stronger, and the lumbermen are daily making converts from among the thinking public. In the case of recent legislation by the Ontario Government affecting lumbering, it may prove that the Dominion authorities will conclude that the time has now arrived when the legislation asked for should be granted.

It is almost unnecessary to again review the situation and point out the unfair conditions resulting from the free importation of United States lumber. These conditions must already be known to our legislators. The situation was clearly set forth in the address of Mr. John Waldie before the Ontario Lumbermen's Association.

In this country the cost of labor and mill supplies is greater than in the United States, while that country enjoys the advantages of cheap transportation by railways, which is something unknown in Canada.

A memorial printed in another column gives the views of the lumber and shingle manufacturers of British Columbia, and in our opinion makes out such a strong case in favor of an import duty that it will be difficult for the Government to conscientiously ignore the request. The statements contained in this memorial are a fair representation of the situation, and are actually borne out by facts. The manufacture of lumber in British Columbia is so handicapped by the free import of the United States product (while the Canadian product is shut out of the United States by an import duty), that some manufacturers have already removed their mills to the United States, where they may enjoy the advantages of both markets. Proof of this is to be found in the following letter, unsolicited so far as it relates to the question of an import duty:

VANCOUVER, B. C., January 31, 1901.

CANADA LUMBERMAN, Toronto:

GENTLEMEN,—Replying to yours of the 13th inst., would say that at the present time we do not care to put an advertisement in your paper, for the reason that our territory called Canada is well covered at present with men, and on the other hand, there being no import duty on shingles from the United States, it leaves us so that we are not pushing very particularly for business in Canada. It seems that on account of this duty and the importation of wooden goods from the United States to Canada, we are compelled to go to Washington, as you will see by our advertisements in those papers.

We are building another mill at Sumas, in Washington, and anticipate building still another in the course of two months. We do not understand the unfair treatment to the lumber industry in Canada, and we have got tired trying to remedy matters in that way, and are simply going where we can do business and where the lumber industries are protected as well as others. We are neither strong Conservatives nor Liberals, but we look at the unfairness of the matter.

At the present time the capacity of the Canadian mills, according to the Canadian trade that is left us, exceeds the demand about three times if all mills run full time.

We are sorry to have to write in this way to practically the only lumber paper in Canada, but we are compelled to.

Yours very truly,

HASTINGS SHINGLE MFG. CO.

The injury wrought to the lumber manufacturing industry of British Columbia is apparent and Canadian workmen are thus deprived of the employment which it should be the duty of the national government as far as is expedient to provide for them.

The suggestion which has been made in the Dominion House to nationalize the railways of the Dominion is one bearing an important relation to the proposed import duty on lumber, inasmuch as the inability to obtain reasonable freight rates has been one of the great drawbacks to Canadian lumbermen. The opposition to an import duty on lumber will come from the inhabitants of Manitoba and the North-West Territories, who may fear that they would be called upon to pay exorbitant prices for the necessary lumber for building and other purposes. At the present time a large quantity of lumber is imported into these provinces annually from the United States, the railways of that country fixing the freight rate at such a figure as will permit the manufacturers in northern Minnesota to supply certain sections of Manitoba and the Terri-

ories, to the exclusion of the Canadian product. There is no reason, however, why the cost of lumber in these provinces should be called upon to pay excessive prices for building materials unless it be the arbitrary position now taken by the Canadian Pacific Railway. There is an abundant supply of timber on the Lake of Woods district, and with the United States product excluded from the Canadian market, facilities for producing lumber in this district would be increased so as to furnish an ample supply for the western markets. If more reasonable freight rates were obtainable, the manufacturers of the north shore of the Georgian Bay would also make a bid for the trade of the prairie province, so that there seems no reason to doubt that competition would prevent the lumberer from being called upon to pay more than a reasonable price for his lumber. Some of the mills of the north shore of the Georgian Bay, we understand, already made shipments of lumber to the city of Winnipeg.

Reasonable freight rates, however, are necessary, and whether these are secured by nationalization of the railroads or by the appointment of a commission to regulate freight rates and like matters, they would prove a benefit to the lumber trade, and would solve the problem of a lumber supply for the prairie provinces from the Canadian forests.

'THE ASSESSMENT OF LUMBER.

THE latest decision to burden the lumber industry of this country is a proposition to assess all lumber piled within corporation limits. The city council of Ottawa is responsible for having originated this movement. A motion was recently introduced in the council of the city "to petition the Ontario Legislature to make such provision in the Assessment Act as will ensure the taxation of lumber piled within the city limits; and also that all lumber piled or stored on any land within the city limits be assessed to its full value against the person assessed for such land, without regard for the ownership of such lumber or any indebtedness against the same, in order that such lumber land may be placed upon the same basis as regards to taxation as other property and be made to bear its fair proportion of taxation."

It is difficult to understand why, in the eyes of these municipal authorities, lumber should be singled out to be dealt with in a manner different from other lines of manufactured goods. Is the product of the farm, the mine, and the fisheries equally liable in the matter of taxation with that of the forest?

No business or industry is more helpful to the farmers of Canada than the lumber trade, and there are many an industry which has done more to build up the villages, towns and cities of the Dominion. Such a proposition as has been made comes to the bad grace from the city of Ottawa, which has so much of its commercial importance today due to the lumber industry and to lumbermen who have invested their money in establishing sawmills and other enterprises.

For some reason there seems to be an enmity towards the lumberman. He is taxed to the utmost, while he is not afforded the corresponding measure of protection. In the article used in his business that it is necessary to import is subject to a duty imposed by

Government. He is charged a Crown and Crown dues to the full extent that the business can pay and permit of its continuance. The tax is assessed to the municipalities, which, now propose to tax the output of this

perhaps one reason why the business of lumber is unduly burdened is that their operations are necessarily large and represent a large monetary investment. Yet is there another class of manufacturers whose operations involve greater

there seems to be an impression by the public that lumbermen are accumulating vast wealth, which is a fact that there have been only two years in the past ten in which the business has been found profitable.

We do not apprehend that the Ontario Government will sanction the proposition to place a tax on lumber and thus cripple an industry which already bears more than its fair share of taxation.

EDITORIAL NOTES.

CONVINCING proof that the people of the United States believe that Canada, in her vast natural resources and water powers, holds the key to the pulp and paper trade, is found in the amount of space given to Canadian matters in the American publications. Column after column in each issue of the leading pulp and paper trade journals are devoted to chronicling the developments for the development of the pulp and paper industry in Canada, and frequently far-fetched arguments are advanced in the endeavor to show that the United States will continue to control the situation for many years to come. Between the lines one can easily discern that the statements are inspired more by a feeling of jealousy than by faith in the future supremacy of the United States.

THE CANADA LUMBERMAN has been asked to advise what steps should be taken by Canadian manufacturers wishing to make an exhibit of their products at the Glasgow exhibition. J. M. Macoun, who had charge of the Canadian Forestry exhibit at Paris, is looking after the collection of the articles for the Glasgow exhibition, which will include all kinds of manufactured articles made from wood alone. There is ample space for such exhibits of whatever kind. The Dominion Government pays all the costs of transportation, installation, etc. All that is necessary for exhibitors to do is to write the Minister of Agriculture asking for shipping lists and directions for shipment. The Glasgow exhibition following so closely after the one at Paris, should serve to clinch many profitable branches of trade that were suggested by the Paris exhibit. Mr. Macoun states that if Canadian producers could only realize the extent of business to be done in Europe, they would be content with the United States market.

The Inspection Bureau of the National Hardwood Lumber Association of the United States is apparently meeting with considerable success in its work, as will be seen by reference to the report of the Surveyor-General, Mr. M. M. Wall, to be found elsewhere in this issue. Every lumber market in the United States, with the exception of Boston and New York, have indorsed the Inspection Bureau. Mr. Wall is of the opinion

that it would be a great advantage to our hardwood manufacturers if an arrangement could be made to have national inspectors stationed at the central manufacturing points in Canada, and that sales of lumber could be made where the orders are now lost to our manufacturers. He points out that there are times when all the hardwood people in the east could use a few cars of Canadian stock, but our manufacturers usually desire that the question of inspection shall be settled at point of shipment, and it would be entirely too expensive to send an inspector to inspect a few carloads, with the chance of a disagreement between the inspectors when they got on the pile to ship. Under the system of the National Association an inspection made by one of its inspectors would be final between buyer and seller. Mr. Wall is a strong advocate of the benefits to be derived from this Inspection Bureau, and believes that in a short time such progress will have been made as to make it of great benefit to the hardwood manufacturers of both Canada and the United States.

THE extent of the trade in hardwood lumber with Europe is limited only by the ability of our manufacturers to supply the stock required at satisfactory prices. That dealers in Great Britain, Germany, and other countries are not only willing but anxious to obtain supplies from Canada is proven by the frequent receipt, by the publishers of this journal, of letters enquiring for certain specified stock. The latest is from a reliable London firm who are desirous of arranging for a regular supply of hardwoods, chiefly basswood, soft elm, and maple. Some of our manufacturers seem averse to taking hold of the British trade, but it is possible that they might find it more profitable than they anticipate. It would be well for each manufacturer to accept at least a trial order. When trade with the United States becomes a little quiet, a British connection might be found very acceptable. Certainly during the past year some of our hardwood manufacturers could have made a few shipments across the water without losing any of their local or United States business.

BAND VERSUS CIRCULAR.

A United States saw mill owner gives to the American Lumberman his experience regarding the merits of band and circular saws. He says: "We built a circular saw mill about twelve years ago, costing with dry kilns and necessary buildings \$7,000. We operated it nearly five years, when it was burned down. Its capacity was 25,000 feet of scaled logs, Doyle rule, a day. It was rebuilt carefully as a band mill, with about the same capacity, and has been running steadily ever since. As a circular there was no overrun; as a band the overrun of sawed lumber shipped has averaged 30 per cent. From March last till Christmas the overrun was 32 per cent., and there were not 5,000 miscuts during that time. I should say, however, that in building the band mill extra pains were taken to have good foundations and a very solid, heavy frame. In consequence the work done by the mill has been excellent and scarcely any alterations or repairs have been necessary, except on account of wear. This mill cost \$25,000 with sheds and outbuildings. This year we have added a band resaw,

which has increased our capacity one-third, and our overrun much more. The cost of this improvement, entire, was \$2,550. Included in the overrun were about 7 per cent. of common bark strips which net about \$3. Our inspection shows 24 per cent. No. 1 and No. 2 with all counted that is shipped. The logging outfit and expense is extra. My opinion is that whiskey is largely to blame for losses in the small circular saw mills. Lumber is badly manufactured, thick and thin, no dry kilns and therefore stained. Bad manufacture almost always results from bad foundations; unless they are perfectly solid good lumber cannot be made. Usually a basin where wells can be sunk is selected, heavy rains come and water remains about the mill; there are no drains, the roof leaks and does damage; they cannot afford to stop and make needed repairs, so patch up and go on sawing poor lumber, which drags all the markets down. The foregoing is my opinion. Of course the amount of timber to be cut has much to do with it - not less than 25,000,000 would justify the building of a band. The writer has had fifty years' experience in manufacturing and dealing in lumber in various sections and has been successful in a fair way."

Concerning the subject the editor of the American Lumberman makes the following remarks: "The matter of overrun by use of the band is an extremely important one. If the object be to produce 25,000 feet of lumber per day, and there is an overrun of 30 per cent. from log scale by use of the band as compared with no overrun by use of the circular, the band will produce the 25,000 feet from a little over 19,000 feet of logs. If logs are worth \$5 a thousand there is therefore a saving of \$30 a day from that one factor. On the other hand, there should be some overrun with a well managed circular, which nowadays can be run successfully on an 8-gage kerf. There is lacking in the above any statement as to the comparative cost of operation. The original cost of the band mill was \$18,000 greater than that of the circular, interest on which at 6 per cent. will be \$1,080 a year; whereas the saving by overrun during 200 days' operation will be \$6,000. This whole problem is one which must be figured out in every case according to the character of the timber, the class of work to be done, the amount of work required, taking into account the difference in the cost of the two characters of mills, both originally and in operation."

PROPOSED SCHOOL OF FORESTRY.

Prof. B. E. Fernow, director of the New York State College of Forestry, on January 21st last gave a lecture at Queen's University, Kingston, Ont., on "Forestry." The lecture was mainly of a botanical character. The following day a conference was held with the authorities of the university and representatives of the governments, at which the establishment of a forestry department in connection with Queen's University was considered. Hon. Mr. Harcourt, Ontario Minister of Education, strongly favored the inauguration of such a school, and it is probable that some action in this direction will be taken in the near future.

The Harbor Commissioners of Toronto have made a reduction in harbor dues equal to about four cents per thousand feet, board measure, on lumber.

WESTERN RETAIL LUMBERMEN'S ASSOCIATION.

The tenth annual meeting of the above association was held in the city of Winnipeg on February 19th. There was a large attendance of members and visitors. Mr. Henry Byrnes, of Winnipeg, president of the Association, occupied the chair, and after opening the meeting called upon the secretary, Mr. Isaac Cockburn, to read the minutes of the previous meeting, which were confirmed.

The annual address of the president was then presented as follows:

[Gentlemen and Fellow Members of the Western Retail Lumbermen's Association:]

I deem it an honor to be privileged, as your president for the second time, to welcome you here in attendance at this annual meeting. I regret that it is not my good fortune, owing to the effect of a disappointing harvest, to be able to offer you congratulations of prosperity in the lumber trade. I, however, can compliment you upon the wisdom exercised in your business under the existing circumstances, in anticipating so closely the effect of a short crop, by restricting your business in purchasing with caution commensurate with the absolute necessity and requirement. The farmers also have evinced a worthy caution in delaying expenditure in building and improving as much as possible, until the return of an assured good crop. Being interested in the working of the association, and wishing to acquire more personal knowledge of it, I accompanied the secretary on two trips into districts where some complaints had been formulated against some dealers for violating the price list established.

On visiting the dealers in question, we were able to harmonize the differences complained of, and start them anew to sell at the established price list, and the result was an apparent feeling to adhere to the established list. My observation has led me to believe that the association is doing much to promote a better understanding among the dealers in the conduct of business generally, and the advantage of an established price list is well borne out. Unfortunately, there has existed in the city a disruption of the price list, and lumber has been sold at no profit to the dealers, and the demoralized and slaughtering prices here have been quite injurious to members having yards in the proximity of the city, and even at considerable distances out. I may say that after an unsatisfactory experience there appears now to be a united effort on the part of the dealers of Winnipeg to make such an arrangement and agreement as will lead to reorganization and selling on an established price list in future.

You will notice that the balance on hand has increased considerably, which may be a matter for your consideration whether the annual dues may not be reduced some.

In closing, I desire to state that at the last annual meeting it was my purpose to suggest to you that it would be a fitting thing for us to join with other organizations in contributing to the patriotic fund, but this was overlooked. However, at the first meeting of the directors, the board and myself thought it proper to vote \$100 to the fund then being established for the relief and benefit of such families requiring consideration and assistance on account of our gallant fellows who volunteered to take part in the South African war, on behalf of our then gracious, beloved and revered Queen, and for whose recent death we all mingle in sorrow and are touched with pride in having had so worthy, illustrious and good woman as a sovereign. We pray God to bless her noble son and successor, our sovereign, King Edward VII, who has already stamped himself an able and worthy ruler, and has declared himself in giving expression of affection and reverence for his mother in language so worthy of a dutiful son to a wonderful mother, to closely follow in her footsteps in constitutional government.

Then followed the secretary-treasurer's report as given below:

Mr. President and Gentlemen,—I am pleased to be able to present to you such a favorable financial statement, showing a balance on hand to the credit of the association of \$2,034.21.

There are still 34 dues unpaid, many of which will be paid, but it will be necessary to purge the membership list of some names, as it will not do to inculcate carelessness in the paying of dues. The membership stands at a gain of twenty-three over that of last year. There is a

total of two hundred and four yards, and thirty-four honorary members. During the year I removed from the list seven members for directly refusing payment of their dues.

I have to report that shortly after the annual meeting I proceeded to establish price lists for the various points, and continued doing so until pretty thoroughly completed, with the exception of points west of Minnedosa, where I was advised that lists were not wanted. I did not visit the Northern Pacific points, knowing that it would be of no service, as there were non-members in competition. I have to acknowledge the active interest taken by the dealers throughout in arranging the prices, and the kind courtesy extended to me by the members, many dealers travelling considerable distances to attend meetings called for that purpose. I am glad to believe that the prices so established were generally adhered to, although there were some cases of complaint for violation of the price list, in which cases I was successful in harmonizing the difficulties which had arisen, by meeting with the dealers in question and discussing with them the grievances complained of, and securing a new start in selling on the established price list. In nearly every case a better feeling was engendered between them as a result.

At one point where I was asked to investigate a charge for selling at less than the price list, I knew the parties were not on speaking terms over some business difficulties. I first had an interview with the complainant, and told him I would bring them together, so as to sift the charge, and that he must make up his mind to discuss it with the dealer complained of, and in a friendly way. This he consented to do. I then interviewed the dealer complained of, who frankly admitted the charge, and after some discussion bearing upon the matter he gave me the strongest assurance that hereafter he would maintain the established prices. Upon calling the parties together a full discussion was had upon the charge made, and the dealer in the wrong having acknowledged the same, I then called the other dealer aside and mentioned to him that should he press the charge a penalty of \$25 or over would have to be levied from his opponent, and that it would be of no direct benefit to him. To the credit of the party thus appealed to he at once replied, "I do not wish to be the cause of making my opponent pay that amount, and if he now agrees to maintain the price established, I consent not to proceed against him." I did not fail to impress this good act on the mind of the other party. This happened early in the spring, and no complaint has reached me from that point since. I merely state this case in giving my experience that this is a better mode of settling matters of complaint than referring the matter to the executive committee, when doing so can be avoided, but of course there will arise exceptional cases which will make it imperative to do so.

The president in his address has referred to the state existing among the Winnipeg dealers, and I need not dwell upon it further than to say it affected members disastrously at points in the vicinity outlying the city. Those dealers have my warmest sympathy in the disturbance and loss of their business therefrom, and I do hope that upon the restoration of a price list for Winnipeg good business will again be brought about to the dealers referred to.

I feel called upon to make reference to a pernicious business coming under my notice which is being carried on by what is termed on the other side as poaching. I mean someone who is not a manufacturer and a non-member of the association, procures lumber from parties other than honorary members, and disposes of the lumber as best he can, and I am sorry to say that such a person has succeeded in making trouble and demoralizing prices in some instances to the serious detriment of some active members. I trust no member of the association will be found purchasing or supporting such a system as referred to, and if possible that some means may be brought to bear that will stamp it out.

This is an opportune time to discuss these phases on their merits, and I would like to impress upon the members present to do so fully and to go forth from this meeting resolved to act up to the resolution and by-laws of the association, and to be fellow workers together for mutual benefit.

The suggestions in the secretary-treasurer's report created a lively discussion in regard to the practice of cutting prices.

Several members stated that business in their par-

ticular localities had been adversely affected during the year by the action of non-members who purchased lumber in the United States and western manufacturers who did not belong to the Association. The result of the discussion was that an understanding was arrived at that as nearly as possible hereafter the rules of the Association would be adhered to by all parties. Manufacturers and the whole sale men agreed to assist the members of the Association in this direction. The address of the president and report of the secretary-treasurer were approved.

The election of officers resulted as follows: President, Henry Byrnes, Winnipeg; vice-president, J. L. Campbell, Melita, Man.; director, D. E. Sprague, Winnipeg; F. Turabull, Melita, Man.; W. S. Burley, Neepawa, Man.; M. Stewart, Morden, Man.; J. K. Roberts, Treherne, Man., and R. H. Williams, Regina, Assiniboia.

On motion of Mr. J. L. Campbell it was decided to arrange with the railway companies an excursion to the Pacific coast during the coming summer, after which the meeting adjourned.

REDUCTION IN SHINGLE DUES.

The Dominion Government has issued the following proclamation affecting dues on shingle timber taken from Dominion lands in British Columbia:

"Whereas it is found that the rate of twenty cents per thousand chargeable on shingles in section 11 of the regulations governing the granting of yearly licenses and permits to cut timber on Dominion lands established by order-in-council of 1st July, 1898, and amending orders-in-council is not excessive in Manitoba and the North-West Territories, where shingles sell at from \$2.50 to \$3 per thousand, but in British Columbia, where they only sell for \$1 per thousand, it is apparent that the rate is too high:

"And whereas the timber used in making shingles in British Columbia is of a class which cannot be used for the manufacture of lumber, being the hollow butts of trees cut down in logging, and therefore it not used for shingles, but is burnt in the process of clearing the land, it is thus deemed advisable to modify the rate;

"Therefore, His Excellency, by and with the advice of the Queen's Privy Council for Canada is pleased to order that instead of dues being charged in the province of British Columbia on the rate of twenty cents per thousand on manufactured shingles, the said dues shall be reduced to ten cents per thousand, and the same are hereby made chargeable on shingle bolts at the rate of fifty (50) cents per cord."

End piling under sheds is probably the best method of stacking hardwoods for seasoning. A Michigan concern has used this method for several years, and finds it very satisfactory. Its sheds are 30 feet wide, 200 feet long, and high enough to take in a 16-foot board. The capacity of such a shed, the stock being well piled, is 200,000 feet. The sheds are of concrete built especially for such work. End piling costs 15 to 25 cents per thousand feet more than end piling, but the results are claimed to cost less than balance this.

RAILWAY CONSTRUCTION IN NEW ONTARIO.
 In his financial statement made to the Ontario Legislature on the 21st of February, Hon. G. Ross presented in a clear and forcible manner the requirements of New Ontario in the matter of railroad construction, and threw out some important suggestions as to the methods to be pursued in supplying this need which have given rise to considerable discussion. The Premier fully realizes the necessity and the justice of so controlling the building of railway lines as to secure for the people of this province the full commercial and industrial advantage accruing from the development of the country, instead of allowing them to be diverted into other channels by means of the corporations subsidized by the people's money. The question of the powers exercised by railroad corporations and often abused to the detriment of those conferring them, is nearly becoming a more serious one. It is the uppermost issue to-day in Dominion politics, and it is well therefore that Premier Ross is showing disposition to grapple with it in earnest with the view of avoiding those errors of judgment in dealing with railways in the past which have largely counterbalanced the great benefits of the railroad system.

The particular project considered in the Premier's speech was the proposed line running north from North Bay to open up the rich agricultural region lying north-west of Lake Temiscaming, where colonization has already been going steadily forward for some years. Eventually this line, the construction of which is now practically assured, may be pushed northward to James Bay, but its principal importance lies in the fact, developed by last year's explorations, that the clay belt of the Temiscaming region, which is considered fully equal in fertility to any farming district in the province, extends west and northward throughout the Nipissing and Algoma district, comprising a continuous tract of over 13,000,000 acres. The traffic of this extensive region to which the tide of settlement will shortly be directed, will find its natural outlet by means of the Temiscaming railway and be rendered tributary to Toronto and the other commercial centres of this province. The Premier threw out the suggestion that the House should seriously consider whether the best and most efficacious way to provide against the diversion into eastern channels of this enormous and profitable trade was not for the government to construct the line themselves, instead of entrusting a corporation to build it. He avoided committing the government to the general principle of public railroad ownership, dealing only with the special case of this particular enterprise, and emphasizing the point that it was the gateway to this vast and productive territory, and that it was our imperative duty to guard against its being controlled by interests adverse to our commercial prosperity. The construction of the road by the government does not necessarily interfere its operation by them. In fact, the Premier pointed out that after the work was completed the track could profitably be leased to the Grand Trunk Railway, connecting with their present lines, which would bring the traffic to be created between Toronto and the western parts of Ontario. Merely to bonus a company after the usual fashion would leave them free to make the connections most profitable to the promoters and

would probably result in our interests being sacrificed to those of Montreal.

A consideration to which the Premier did not refer presents itself as an additional reason in favor of public control in this instance, namely, the saving likely to accrue in the rates of transportation. The usual system pursued by railroad promoters is to build the line so as to cover the greatest mileage in the shortest time in order to be able to float bonds at the rate of \$20,000 per mile. This increases considerably the amount upon which interest has to be paid out of the traffic, as the bonds usually have to be disposed of at a heavy discount. Other manipulations, such as the letting of contracts to construction companies, increase the load of liabilities which must in the end be borne by those who use the roads, in addition, when it is possible, to the payment of dividends to stockholders. Under government construction the amount might be greatly minimized if the traffic rates were adjusted so as to meet the actual cost of construction and operating expenses merely.

Another matter which ought not to be overlooked is the need of preserving from the ever present danger of fire the extensive pine areas of the Temagami Forest Reserve, estimated as containing about three billion feet, board measure. The railway will pass through the reserve and the pine forests immediately adjoining it for a distance of fifty miles. Railway construction under the ordinary system has almost invariably been attended by extensive forest fires, owing to the negligence of large bodies of men employed in the work. The value of this body of timber renders it only right that extraordinary precautions should be taken to guard against such a calamity, and it may be urged this can be done more effectively when the building of railroads is undertaken as a government work than if relegated to a company regardless of other interests than their own, of whom a formal and perfunctory compliance with set regulations would be all that could be expected.

While there is much to be said on both sides of the abstract question of the state ownership of railroads upon which the Premier wisely, as we think, refrained from entering, it must be admitted that the proposed Temiscaming railroad occupies a somewhat exceptional position, and that the magnitude of the interests involved may justify some departure from customary methods. Whatever may be the precise direction which this may ultimately take, we trust that the Legislature will support the position of administration in insisting that the development of the unsettled territory shall be pushed so as to secure the legitimate commercial interests of the people of this province, and that in railroad construction every possible safeguard shall be resorted to to prevent the diversion of the traffic into other channels.

THE DODGE CALCULATOR.

We are in receipt of a very ingenious device called the "Dodge Calculator," issued by Dodge Manufacturing Co., of Toronto.

The device is not only a novelty, but it is also an instrument of considerable value and assistance to all mechanics, foremen, superintendents, etc., whose duty it is to figure up speeds of pulleys, gears, etc. We are informed that the Calculator is one of the many uses to which the slide rule principle may be applied.

The Dodge Manufacturing Co. will be pleased to mail the Dodge Calculator free for the asking.

CORRESPONDENCE

OPERATION OF CIRCULAR SAWS.

WALTON, Jan. 11, 1901.

Editor CANADA LUMBERMAN:

DEAR SIR,—In reading over the opinions published in your January issue as to the merits of different types of saws, I was much interested in the letter signed "Oak." I would like to ask your correspondent what he considers the proper speed for a 9 gauge and 10 gauge circular saw, and to explain what he means by two guide pins, also state in what position he would place them with regard to the saw.

Yours truly,

L. McDONALD.

ROSSEAU FALLS, Jan. 12, 1901.

Editor CANADA LUMBERMAN:

DEAR SIR,—In the letter signed "Oak" in your January issue, the writer speaks of using two sets of guide pins for guiding thin circulars in cutting lumber. As I have had some experience with thin circulars, even down to 12 gauge, 68 inches diameter, upon which I tried the two sets of pins, but without satisfactory results, I would be glad to have particulars as to size of saws used and a simple sketch showing where the guide pins should be placed on the plate.

Yours truly,

ISA MITCHENBACKER.

In reply to the above letters our correspondent at Rat Portage writes as follows:

"With regard to the best speeds to run a 9 and 10 gauge circular up to 60 inches in width, the speed that I found to give the best satisfaction is about 800 revolutions per minute. I have always asked the sawmaker to build or grind the plate one to one and one-half gauges thicker from the centre out to the rim. I never depend on the hammering that comes from the saw factories. I always change it to suit myself, and I find since I have used my own way of hammering that I always have good results, making good lumber, and seldom ever break a saw.

"We use 9 gauge saws in this part of the country (where 75 per cent. of the timber is red pine) with good results. In the east, where the logs are white pine, there should be no trouble in using 10 gauge. Red pine is much harder to saw with a circular, especially the butt-log, than any other kind of soft timber I know of.

"I may say that before we found out what was the matter with the saws coming from the factories, we had lots of trouble in the way of making bad lumber, and also by breaking saws faster than they could be shipped to us from the east. The difference now is that we do good work and break no saws, and make a larger cut per day.

"In reply to Mr. Mitchenbacker's letter, as to where I would place two guide pins on a circular. They are placed one below the log in the usual way; the other guide is placed above the log about four-fifths of the distance from the collar to the rim. This plan is used more where they have double mills with a band on one side and a circular on the other side, the larger logs going to the band and the smaller logs to the circular. One of the fastest mills in the world has adopted this plan. The one I have reference to is Heckley's mill in Minneapolis, where they are sawing more lumber in a day for the amount of plant and number of men employed than any mill in the world. The rate that a 10-gauge circular runs in that mill would surprise a man who has been used to thick saws. We are going to try two guide pins here the coming sawing season in one of our double mills.

ADVANTAGES OF SUPERHEATED STEAM.—A recent authority thus sums up the advantages of superheated steam: First—A slight gain at the boiler, although a less gain than can be obtained by increasing the boiler heating surface, or by the use of an economizer. Second—A large gain in economy at the engine, while as a disadvantage there is: Third—An increased loss in the steam pipes, due to increased radiation, fall of pressure and increased leaks. With from 500 to 700 degrees temperature of the steam, the following results were obtained:

	Per Cent.
Gain at boiler.....	2
Gain at engine.....	10 to 20
Extra loss in pipes.....	4 1/2
Net gain.....	7 1/2 to 17 1/2

THE LATE W. H. HURDMAN.

The oldest and one of the most extensive lumber operators of the Ottawa Valley died on Wednesday, February 20th, in the person of William Henry Hurdman. For over half a century deceased was actively engaged in the lumber industry with his brothers, of which Robert alone survives. He was a son of the late Charles Hurdman, who emigrated to Canada from County Caven, Ireland, in 1818. The family settled in Hull township, where William was born the same year, he being the first child of old country parents born in this section of the Ottawa Valley.

At the age of 23 deceased, in 1841, took a contract with his brother Charles to grade a section of the Aylmer and Bytown Turnpike road. Later in the same year he entered the lumbering business, drawing timber for John Egan, then one of the leading operators. He continued in this branch of the business till 1866, when he secured a limit, 50 miles in extent, on the Chalk river above Pembroke. This limit was worked for square timber till 1864. Mr. Hurdman next secured a limit on the Mattawa, part of one formerly owned by A. H. Baldwin. This was part of the old E. B. Eddy limits, and it is now worked by Mr. Hill. Square timber likewise was secured on this one, as the distance was too great to permit of logs being cut and hauled down.

In 1865 Mr. Hurdman secured a limit, 150 miles in extent, bounded by the Mattawa, Petewawa and Amable du Fond rivers. The present limits of Wm. Mackie, M. P., adjoins the old Hurdman limit. The square timber cut on this limit had to be drawn to the Ottawa river and there formed into rafts, which were floated down to Quebec by wind and current.

Mr. Hurdman was one of the first lumber operators to go up the north branch of the Petewawa river. This was in 1866, and work was carried on above Cedar lake. At this time the late Richard McConnell had limits alongside Mr. Hurdman's on the Petewawa. Wm. Morris, the late Andrew Irving, of Pembroke, and A. & P. White were operating on the south branch. That season the square timber rafted at the mouth of the Petewawa at the opening of navigation did not reach Quebec by way of Ottawa till September 29th. The following year, 1867, Mr. Hurdman pushed on still further and took out square timber on Hurdman's creek, a branch of the Petewawa river. He improved the waterways, but on account of the low water was unable to get his rafts of square timber to Quebec till the following season.

There were five of the Hurdman brothers, William being the oldest. The others were Charles, John, George and Robert. In 1857 the well known Hurdman firm on the cut-kirts of Ottawa, at Hurdman's Bridge, was purchased, and on this George took up his residence, farming in the summer and lumbering in the winter. He died last summer. The farm, which contains 160 acres, was purchased in 1857 for \$2,700. The price now placed on it is \$24,000. John Hurdman died in 1861, and the lumbering operations were carried on by William, Charles and Robert. They were known as "square timber men" till 1879, when they commenced taking out logs for the mill men. Previous to this, in 1872, they purchased limits on the Kippewa from John Wilson. In 1879 the partnership known as Sherman, Lord & Hurdman was formed. In it with the Hurdman brothers were T. E. Lord, of Albany, and Augustus Sherman, of Postdam, N. Y. The firm operated the Cromwell mill in the Chaudiere district, between Hull and Ottawa, the logs being cut by the Hurdman brothers on their limits. In this same year a limit was secured on the Coulouge. From the foregoing it can be seen that the Hurdmans were extensive operators. Each season they forwarded to Quebec four rafts containing about 500,000 cubic feet of white and red pine. The timber cut by them was always select stock, mostly white pine. The last square timber was cut in 1878.

In 1879 Charles G. Hurdman, of Mattawa, and W. H. Hurdman, jr., of Ottawa, entered the partnership, buying out the share of their father, Charles Hurdman. In December, 1884, Sherman died and his son-in-law, Lemon Thompson, succeeded him in the business. About this time a yearly cut of 40,000,000 to 50,000,000 superficial feet was made. The firm was known as Lord, Hurdman & Co. till 1886, when Mr. Lord died. His share was bought out and the firm name changed to R. Hurdman & Co. Mr. Robert Hurdman acted as manager at the mill, and William Hurdman managed the "up river" business, assisted by his nephews.

Previous to Mr. Lord's death, however, the firm made

extensive purchases of limits. These were situated on the Maganassippi on the Ottawa at Deux Rivieres, at Bois Fram, and on the Kippewa lakes up the Ottawa. Part of these limits were secured from A. & P. White and J. & G. Bryson.

In 1891 another change was made in the firm, when A. E. Buell, of Burlington, and John C. Orr, of New York, secured part interests. The firm name became Buell, Orr, Hurdman & Co. Other gentlemen who became identified with the business were W. G. White, Albany, F. W. Avery, Ottawa, and C. E. Read, Ottawa, son-in-law of W. H. Hurdman, the subject of this sketch. The latter retired, but was further identified with the Hull Lumber Company till 1896. Charles Hurdman died in 1893.

About this time the celebrated and complicated legal proceedings between the Hurdmans and the other parties mentioned were instituted. The Hull Lumber Company, it is said, was formed under protest from the Hurdmans, who claimed an interest therein, although not recognized as holding any interest by the other parties. The case was not settled till last March. One of the last acts of the late Wm. Hurdman, it is said, was to sign the final document in this celebrated case.

Mr. Hurdman was active despite his 82 years of almost continuous service in the lumber business. He was a man of unimpeachable character and stood high in the esteem of the hundreds who knew him. Up to 1873 he resided in the family residence on the Aylmer road. In that year



THE LATE W. H. HURDMAN.

he moved to Hurdman's Bridge, and in 1885 he took up his residence in Ottawa. He was actively identified with municipal politics and was reeve of Gloucester township and a member of the county council. He was a staunch Conservative, and at one time recognized as a lieutenant of the late Sir John A. Macdonald. Mr. Hurdman's intellect was clear and his powers unimpaired till the last.

The generation of lumbermen to which he belonged has narrowed down to few representatives. On the list at different times were Richard and Benjamin Rinaldo, Richard McConnell, John Egan, James and Robert Skead, Wm. Morris, Andrew Irving, Pembroke, John and A. Dunlop, Wm. Mackie, M. P., A. and P. White, Alex. Fraser, Wm. Fairclough, Daniel McLachlin, P. Supple, Pembroke, John Poupore, R. H. and James Klock. Mr. Hurdman leaves a family of one son, W. W. Hurdman, of Hartford, Conn., and three daughters, Mrs. (Dr.) J. F. Kidd, Mrs. C. E. Read, and Mrs. (Rev.) H. H. Stevens, of St. Henri, Montreal. Mr. Geo. C. Hurdman, of the lumber firm of Hurdman & Elmitt, is a nephew.

The annual meeting of the Tracadie Lumber Co., of Tracadie, N. B., was held in Bangor last month at which F. W. Hill was elected president, C. D. Standford treasurer, and H. B. Foster general manager. It was stated that prospects for this year's business are as good as could be wished for. The cut of logs this winter will be about 11,000,000 feet. These, it is expected, will be driven to the mill at a cost of \$1.50 per thousand feet.

THE OTTAWA VALLEY.

(Correspondence of the CANADA LUMBERMAN.)

When King Edward VII visited Ottawa as Prince of Wales and heir apparent in 1860, he was given a welcome by the lumbermen. The arrangements were in the hands of Allan Gilmour, J. M. Carrier, John Egan, and other well known lumber magnates, and they were carried out on an elaborate scale. The Prince came to Ottawa by steamer, and a few miles down the river he was met by a flotilla of canoes and river boats manned by 500 lumbermen and Indians, who cheered lustily when the Prince appeared. These smaller craft raced the steamer up the river landing. Many of the canoes were built for the occasion, and the men, all of whom sported red shirts, were brought from a considerable distance. While in the city the lumber workers were entertained at the expense of their employers. Hugh bonfires were built and cooked and served to them in the open.

The following day the royal visitor and the members of his distinguished suite enjoyed the unique and exhibiting pleasure of a trip through the government slides at Chaudiere on a raft of square timber. He afterwards witnessed a series of boat races. In these crews of different strength competed, two oar up to ten oar racing on the programme. The different lumber firms were represented by crews, and the keenest good natured rivalry prevailed. In one race an Indian crew won, however, from the timber hewers.

The lumbermen also erected an immense and imposing arch near the Suspension bridge at the Chaudiere district, then as now the centre of the industry. This arch was built of square timber, as were several others erected along the principal streets. The future King was presented to Mr. Allan Gilmour with an address from the lumbermen and settlers of the Gatineau district. At the Chats Rapids on his way to Arnprior the distinguished tourist was presented with another address on which were conveyed the loyal wishes of 13,000 river men and lumbermen. This presentation took place on a raft, and the address was written on birch bark. The address was unique from the fact that it contained the expression "may you long reign" in wishing the heir apparent all joy and a long life, which showed their love for his royal mother, whose reign they desired to see long continued. The true hearted feeling had their wish realized, as the Queen reigned for almost 50 years. At the time of the Diamond Jubilee one of the gentlemen interested in preparing the address, in presenting it, forwarded another copy to the Prince of Wales renewing the sincere wishes of 1,800 then contained. The Prince in reply stated that he remembered and treasured the circumstance of the first presentation and would convey to the Queen the renewed loyal wishes of the Ottawa lumbermen. The Prince and suite were conveyed from the Chats rapids up the Ottawa river in Arnprior in canoes manned by hardy river men. Arnprior this distinguished guest was entertained by Mr. Lachlin, whose name is also prominently identified with the lumbering interests of the Ottawa Valley.

CHECKING OF BASSWOOD.

A correspondent writes to the American Lumberman as follows: "Would you please give me advice as to how to keep basswood from checking both in logs and square timber. I have tried different ways, such as putting in a sheet of the rain and sun and keeping it with the bark on it, it does not seem to help the difficulty very much." The answer given is that painting the ends, if the process of checking is of enough importance to warrant the expense, will be the best means of overcoming the difficulty.

It is reported that the Ship Harbor Lumber Company, owned by the estate of the late Hon. A. R. Dickey, has been sold to a pulp-making concern.

W. E. Kelley & Company, of Portland, Me., are about to start a planing mill to be operated by electricity, and expect it to be second to none of its size. The shafting and exhauster is to be run from a countershaft; instead of tight and loose pulleys the motor will be connected direct to counter, so that when the machine is stopped the exhauster will also be idle. This construction is a view to economy in not having to pay for extra power. There will not be a piece of shafting in the mill, except in the filing room, where one piece, 12 feet long, will be run by one motor, the filing room tools being belted to this shaft.

WINNIPEG FORESTRY ASSOCIATION.

On the efforts of Mr. William Stewart, secretary for the Dominion, a forestry association has been formed in the city of Winnipeg. An organization meeting held last month at which "Trees for Shelter Belts" was read by P. Stevenson, of Nelson. He said that as Manitoba and the Territories were concerned it is most needed is not large forests, but groves and shelter belts for buildings and parks, with desirable ornamental trees and shrubs to make our homes beautiful and attractive. The rule to be followed should be to begin with native trees.

Mr. Stewart outlined the forestry system proposed by the Dominion Government. An important timber reserve, he said, is that of the Riding Mountains. Forty-five townships are reserved—nearly a million acres. If these are cleared of trees the Assiniboine would be a summer and a torrent in spring. In the mountains of the Rocky Mountains there is another

These reserves, he thought, should be protected by act of parliament. Irrigation would be possible without the forests. There would be no spring and drouth in summer. Other reserves are in the Moose Mountain and Turtle Mountain. One of the main features in the Dominion system would be instruction. A person wishing to avail himself of the forestry system should make application to the Department at Ottawa, and the supervisor would tell him how to prepare the soil and where the trees should be planted.

An address was also given by Mr. S.A. Bedford, superintendent of the experimental farm, Brandon.

On the motion of Rev. Dr. Bryce, seconded by Mr. Barclay, it was resolved that a forestry association be formed, to be called the Winnipeg Forestry Association, and to be open for membership to all parts of the province.

The constitution of the Canadian Forestry Association was provisionally adopted:

Seventeen names of the members were then read and the following officers elected: president, Lieut. Governor McMillan; vice-president, Rev. Dr. Bryce; secretary-treasurer, P. Stevenson, of Nelson; secretary, G. H. Greig; directors, Messrs. D. W. Thompson, C.J. Thompson, of Virden; F. Schultz, of Virden; E. F. Stephenson, Wm. Martin, Ald. Barclay, and R. T. Riley.

A meeting of the executive committee of the association was held on February 21st. Present were Dr. Bryce, president; G. H. Greig, secretary; Ald. Barclay, C. J. Thompson, of Virden, and E. Stewart, representative of the Canadian Forestry Association.

The matter of extending the forest area of the province was considered, when it was unanimously decided to request the Department of Interior at Ottawa to increase the spruce woods reserve of Carberry by reserving the land belonging to what is known as the Sand Hill region as a central Manitoba park, and to ask the Dominion government, under its new forestry system, as soon as feasible to undertake the planting of the park with white spruce, Banksian pine, larch, fir, or other suitable trees in the same manner as was done on the Sanddunes along the coast of France for 150 miles and from two to five miles wide.

A committee consisting of the president, the secretary, Ald. Barclay, R. T. Riley and Wm. Martin was appointed to wait on the local government and educational authorities to ask that more systematic steps be taken to secure general observance of Arbor Day throughout the country, and especially by the schools of the province.

The matter of scattering literature widely throughout Manitoba and the Territories for the inculcating of the value of preserving the forests, and also of giving instructions as to how to grow the trees on the prairies, was discussed. It was unanimously agreed that this should be done and every effort put forth to support the new movement of the department at Ottawa.

A meeting of the Winnipeg association will be held near the end of March, when all members are expected to attend, and new members may join the association by sending an application to Mr. G. H. Greig, the secretary, enclosing on dollar.

THE CANADIAN FORESTRY ASSOCIATION.

The second annual meeting of the Canadian Forestry Association will be held at Ottawa on the 7th March next, commencing at ten a.m. The morning and afternoon sessions will probably be held in the Railway Committee Room of the House of Commons, as last year, and the evening session will be held in the Assembly Hall of the Normal School.

A very interesting programme has been arranged for this conference. The chief feature of the evening meeting will be a lecture by Dr. C. A. Schenck, principal of the School of Forestry at Biltmore, North Carolina, on "Governmental and Private Forestry," which will be illustrated by stereopticon views.

The following papers have already been promised:—"Forest Insects," James Fletcher, LL. D., Dominion Entomologist, Ottawa; "Forestry in British Columbia," J. R. Anderson, Deputy Minister of Agriculture for British Columbia; "Forest Management in New Brunswick," W. P. Flewelling, Deputy Surveyor General for New Brunswick; "The Pulp Industry in Relation to our Forests," J. C. Langelier, Superintendent of Forest Reserves for Quebec; "White Pine and its Economic Management," John Bertram, Toronto; "Forestry and Tree Planting in the West," F. Stewart, Dominion Superintendent of Forestry.

Other papers are being arranged for that will cover, as far as possible, the whole scope of the Association's activities, so that the report of proceedings may give a general view of the present position of forestry in Canada. The North-West will receive special attention.

The railway companies have repeated their great kindness of last year, and the Canadian Pacific, Grand Trunk, Canada Atlantic, Ottawa & New York and Intercolonial systems have agreed to allow members of the Association and their wives, when accompanying them, attending the annual meeting from points east of Fort William, return passage at single fare, provided a certificate is obtained from the agent at the point where the ticket for Ottawa is purchased, which must be signed by the secretary of the Association at Ottawa. This privilege will only be allowed commencing three days before the meeting and three days will be granted after the meeting to take advantage of the free return.

Special arrangements may be made for members from western points if they will advise the secretary immediately of their intention of being present.

The secretary should be notified regarding any papers, resolutions or other matters of importance requiring discussion which any member may wish to bring before the meeting, in order that arrangements may be made for giving them consideration. The secretary would also like to have information of any experiments or observations in tree planting or forestry which have been made by members of the Association or others.

The importance of the subjects to be discussed and the interest of the papers to be submitted should ensure a large attendance. A successful annual meeting will give a great impulse to the work of the Forestry Association, and will do much to establish it on a firmer basis and to advance the great objects it has in view. It is hoped that every member will make a special effort to be present.

FORESTRY AT BUFFALO.

Forestry will receive special attention at the Pan-American Exposition to be held in Buffalo this year. The exhibit will contain much that is interesting and beneficial to the general public.

The propagation, care, and preservation of forests has received a great deal of attention from the United States Government of late years. The United States division of forestry, under Gifford Pinchot, has made an unusually generous offer to all farmers or persons wishing to improve forests or plant wood lots. An expert will be sent upon application, at the expense of the Government, who will make an examination of the soil, climatic and atmospheric conditions, after which he draws up a plan for planting. He also instructs the farmer and his neighbors so far as possible in the elements of forestry. In the main this takes up the question of the proper kinds to plant in a particular soil and locality, the manner of planting and proper care of the trees until they attain maturity.

One of the most interesting features will be an illustration of the manner in which the mat of fallen leaves which covers the ground in the forest absorbs the rain as it falls, instead of permitting it to course down the hillside, to join the brook which helps to swell the river to overflowing.

Distribution of moisture will be made plain, as the work is done in the great chemical laboratory of nature—how the wet surface of leaves operates as an air-tight covering to prevent undue evaporation, while the myriads of tiny tree rootlets take up the water as it slowly percolates through this covering into the soil, from whence it is raised by a mysterious capillary force, through the trunk and branches to the leaves, where it is given off in the form of vapor through transpiration, to be once more precipitated to the earth in the shower or dew that waters the growing crop.

The forestry exhibit will be the special care of Supt. Frederic W. Taylor and will be housed in a building which of itself will be an interesting exhibit. With splendid natural resources to draw from, and the advanced knowledge of forestry as a help, it is the intention to make this the most interesting and practical forestry exhibit ever brought together.

THE SHAPE AND SPACING OF BAND SAW TEETH.

By "MILLMAN."

A man that should undertake to collect and illustrate all the various shapes of band saw teeth would have an almost endless job upon his hands, but he would have a most interesting collection and a wonderful variety of shapes, and perhaps every one of the essentially different shapes would have a saw filer to vouch for its special adaptation to his work. Years ago, when the bandsaw was a new device, the teeth were spaced from 3 to 4 inches and speeded about 4,000 to 5,000 feet per minute. Then presently the spacing was reduced quite generally to about 1 to 1 1/4 inch and the speed increased a thousand feet and more, but with the increase in speed the spacing was increased to 1 1/2 or 1 5/8 or 1 3/4-inch, and for fibrous woods to 2-inch. I have known band saws to be run in white and Norway pine with a 2 1/2 inch spacing, in late years, but this was really an experimental test and the filer soon knocked out every other tooth and found the 1 1/4-inch spacing distinctly preferable. Now, regarding general principles that should govern shapes of teeth, there are a few to which the majority of filers will assent, and these may be itemized as follows:

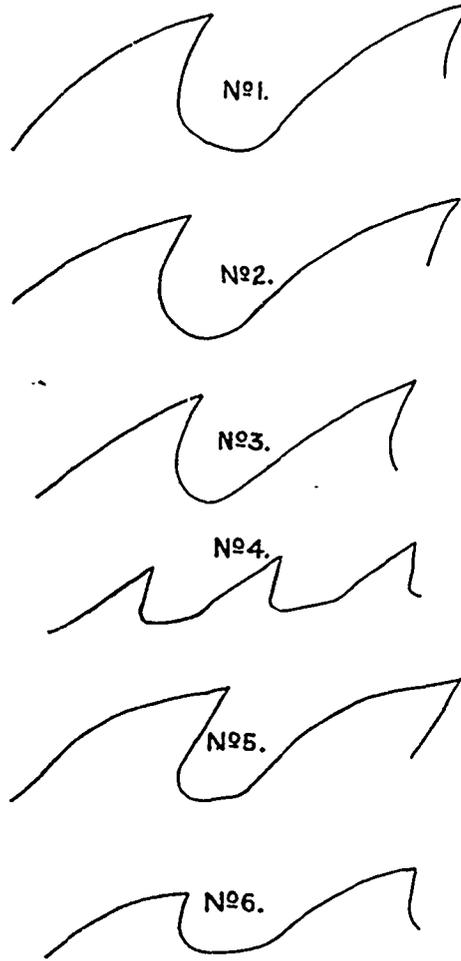
(1) A longer spacing for teeth run at a high speed than for those run at a slow speed. (2) High speed, with plenty of hook and good throat room, insures the highest work. (3) More hook for soft than for hard woods. (4) Longer teeth for soft woods and summer sawing than for hard woods or winter sawing. (5) High speed with teeth close together make fine dust, and this will not pocket well in the gullets of the teeth. (6) Faster speed for soft than hard woods. (7) Faster speed for unfrozen than for frozen timber. (8) A saw with teeth all perfectly fitted and each doing its share of the work may have longer spacing than if otherwise fitted.

There are localities in which a similarity of shapes in general use prevail, and on this point my observation or information is as follows: In the Pacific northwest a 2 inch spacing with gullet 3/8 or 1 inch deep. To produce this tooth an emery wheel must be used ranging from 3/4 to 7/8 or 1 inch thick, with edge shaped to produce the base outline preferred. The same, or a 1 3/4 spacing, in California. In the cypress of the south, a 1 3/4 spacing, with a horizontal base line for gullet, has been very common. In the hardwoods of the middle south or the north, a 1 1/4 to 1 1/2 spacing, with a 5/8 gullet. In the northern white pine and hemlock, spacing of 1 1/2 to 1 3/4, with a 3/4 gullet. In the cottonwood districts a 1 1/2 spacing with extreme hook of 8 to 10 inch in 12. The above is a generalization merely, and from any of these general types may be found radical deviations in each locality.

It is an indisputable fact that changes in the shape of teeth more commonly employed are going on, and these changes are in the direction of more hook, a consequently necessary higher back, a round gullet deviating but little from an almost true circle, rising easily to the crown of the back, and an approximate depth of 3/4 for 1 1/2 spacing, 5/8 for 1 3/4 spacing, and 1 inch for 2-inch spacing. The hook of these teeth ranges 6 to 9 inches in a 12-inch saw, rarely more, and where more hook is claimed, it can be measured only on the face of the swaging and note below. There is such a thing as too much hook, for the

more hook the higher the back required to afford proper strength for the tooth, and there is an obvious limit to the height of the back. The competent filer in adopting a shape for his saw teeth will be governed by his personal experience and that of other successful filers. He does not need to adopt some abnormal tooth, difficult to produce even with the most adjustable sharpener, difficult to maintain when produced, without constant dressing of the emery wheel, difficult to swage and sidedress because of its pitch and hook, and in no way effective except as an illustration of an extreme idea. However, it is probable that some filers hold their jobs on the strangeness of their saw teeth, and more probable that a greater number "get the run" for the same reason.

To produce any shape of saw tooth, two things are essential: A good, adjustable and accurate working sharpener and an emery wheel of suitable grain and hardness, dressed for the work.



This wheel may be straight or concave, round or bevel edged, but must be distinctly one that will hold its shape with least possible wear during the feed of the saw once around. Uniform shape or sharpening of teeth cannot result when the filer stands at the machine adjusting the wheel more or less to the face or back, every few teeth. And really, after all, the matter of hook, spacing, shape of gullet and speed of the saw are probably less important than the swaging, sharpening, and shaping of the teeth. Teeth of a length, sharp, with corners perfectly cleared and uniform, are what you want, and any filer who doesn't work close on these elements, absolutely essential to good cutting, may better develop expertise in these directions, and chase the other phantoms later on.

There are filers whose saws make big cuts, the styles of teeth used being as diverse in hook, spacing, depth and outline of gullet as the possible extremes in these guards. Based on results, you may assert that any one of these various outlines

in use is the best, but keep carefully in mind the saw which does the best work is run in a mill with perfectly faced wheels, a straining device, solid foundation, carriage line, guides set right, and is controlled by an expert sawyer. Also that the saw is made of good steel, is expertly tensioned, perfectly and that it cuts fast and true, because all necessary conditions that contribute to the results have been met.

Referring to the shapes of saw teeth set forth herewith, a little comment may be of interest. Tooth No. 1 is from a 14 1/2-in. by 60-ft. band, and No. 2 from the band saw in a Columbia saw mill cutting fir and spruce, affords perfectly and satisfactory results. No. 3 is from a 12-in. by 51-ft. band saw that drops twelve 12-in. by 16-ft. boards per minute on good logs out of the Mississippi. In this mill there is another band saw used, 14-in. by 45-ft., 14-gage, with same style of tooth, drops 16 boards of above size per minute. Saws are sharpened on the same sharpener, five gages of clearance used. The filer in charge of this saw-fitting comments regarding these teeth as follows: "I always regulate the spacing and depth of teeth according to the species of the saw, kind and quality of the timber, whether frozen or not, very knotty, many boom, gravel or shells, whether canting or sawing, but there is a happy medium that will do work for nearly all, except white oak, hickory and iron, and tooth No. 3 shows this. I'm tracing off my saw, and a tooth on which I stake my reputation. In different mills I have run this tooth in white and Norway pine, hemlock, cottonwood, elm, sycamore, basswood, ash, wild cherry, frozen red spruce, yellow pine, balsam fir and mountain white pine, and with proper clearance for the timber to be sawed, it is a free, easy cutter and does enough for anything. We run into more spikes, stones, etc., and if I had a longer spacing it would necessitate a piece in the saw. When were filling in the real cork pine, free from plugs, gravel, spikes, etc., I should run the spacing one inch deep, just the same shape. The principal thing in shaping saw teeth is to have plenty of hook, so that the teeth will cut round gullet and plenty of strength. The more the feed, the more sawdust room, for you can split a log with a saw. In most cases the saw has a larger capacity than the tension, and they commence changing the teeth the moment they get into such shapes that the grinder has to be a contortionist to follow the lines. Whilst this tooth of mine may not be the best in the world, it is a good one, and will do anyone's work if given a chance."

Tooth No. 4 shows the shape used for resaws in the same plant. Tooth No. 6 is the outline desired by English or German band saw builders, and the sharpeners, swages, and filers shipped for export for these concerns are just to work on this template. The bandsaw rarely exceed 5 or 6 inches wide, and above 14-gage, and cut variously the European hardwoods, Canada and Swedish deals, yellow pine and the cabinet woods of the tropics. In America the tooth seems undesirable, but found satisfactory by the operators, and passed the test. Tooth No. 5 is one of twenty or more templates submitted by a leading saw manufacturing establishment, for which a right hand and a left hand double cut sharpener was required.

Finally, if you must be an enthusiast as regards shape of teeth as regards spacing, hook, etc., don't expect a special choice in this respect will allow you to run your saws successfully with backs hollow, improper tension, crooked guide rail, crooked piston rod, top wheel on back so that the saw has to keep climbing the front edge, too much swage, improper sharpening and sidedressing, etc. Vigilance at every point is the only guarantor of success. The Wood-Worker.

THE NEWS

the plant was not suitable to the class of timber available in the interior.

—Colin Reid, of Bothwell, Ont., purposes exhibiting at the Glasgow exhibition a sample bulletin board containing a number of different kinds of Canadian finished woods.

—W. H. Bennett, M. P., has given notice that he will introduce a resolution in the Dominion Parliament providing that an export duty be imposed on all saw logs cut on Indian reserves.

—Robert Milligan, of Wallaceburg, and David John Milligan, of Fesserton, have purchased David Hadden's mill at Foxmead, Ont., and intend to manufacture lumber, staves and hoops.

—It is said to be the intention of J. A. Sayward, of Victoria, B. C., to remove his mill from Pilot Bay to Nelson, by which he will be enabled to more readily supply his trade in Manitoba and the Territories.

—The McArthur Export Company, Limited, has been incorporated, the promoters being Peter McArthur, of Detroit; John Sharples, Wm. Price, John P. Ross, and F. W. Ross, of Quebec. The capital stock is \$200,000.

—A Chattanooga party has secured a patent on an invention for staining lumber in the log. The staining materials are forced through the log by hydraulic pressure, with the result that the log comes out of the process evenly stained all the way through.

—The Rat Portage Lumber Company have their new lumber yard in Winnipeg in running order. The office building is finished in white pine ceiling, varnished, and presents a bright and attractive appearance. The shed is a double shed, 290 feet long, or equal to a single shed of 580 feet. A spur line of railway will run through the yard and along one side of the shed. It is the intention

to carry a large stock of pine, also B.C. fir, spruce and cedar, red and white oak, basswood, maple flooring, etc.

CASUALTIES.

Fred Truesdale, working in the Rathbun timber limits, north of Marmora, fell upon the upright handle of his axe and received severe injuries.

While at work in McKinnon's saw mill at Cedar Valley, Ont., Colin Patton slipped and fell backward across a circular saw, received such injuries as to cause his death a few minutes afterwards.

James Judge, a well known resident of Toronto, was killed a few weeks ago in the lumber woods at Fowke's river, one hundred miles north of Sudbury. Deceased was driving a team of horses, when the logs swung off a skidway and crushed him.

A Sturgeon Bay, Wis., item in a Detroit paper says A. W. Lawrence has the distinction of being the first man to own and operate a saw mill, the motive power of which is a gasoline engine. It has recently been set in operation in Menominee county, and when run to its full capacity will cost \$5.00 per day for fuel. As an offset to this expense, both engineer and fireman are dispensed with. The slabs ordinarily used for fuel are also saved, and this placed on the market will bring more than the cost of the gasoline.

Tests reported by R. S. Hale to the Engineering Magazine indicate that leakage from steam pipes is probably greater than generally believed. In plants using ordinary amounts of piping, he finds the proportion of steam lost to be 6 to 16 per cent. in mills; 2½ to 7 per cent. in electric plants; 1½ to 10 per cent. on steamships, and 2½ per cent. in water works. The percentage lost seems to depend on whether the plant is worked up to its full capacity. If the electric plant with a loss of 7 per cent. is working at one-third of its capacity, the loss is 21 per cent. of the steam actually used.

—Manning & McCure will build a new saw mill at 100, Man.

—Charles Smith, of St. John, is building a saw mill at Musquodoboit Harbor, N.S.

—A Minnesota lumber firm is said to have decided to build a saw mill in Winnipeg.

—McCracken & Barnes, of Lowe, Que., are changing their saw mill to steam power.

—Dion & Gregorie, of Acton, Que., have formed a partnership as lumber dealers.

—William Hoard will erect a steam saw mill near Wick, Ont., on the Rainy river.

—It is understood to be the intention of Thos. Higgins to erect a saw mill at Brookfield, N.S.

—Thos. Lebel has disposed of his saw mill at Fraser, Que., to Price Bros. & Company.

—Chew Bros., of Midland, Ont., are building an addition to their saw mill at Dollartown.

—James Barner is about to commence the reconstruction of his saw mill at Gordon Bay, Ont.

—The Nipissing Lumber Company, of Hamilton, has been incorporated, with a capital of \$44,000.

—T. G. Hawthorne has registered as manager of the American Axe Company at Three Rivers, Que.

—The saw mill of James E. Mattinson at Lower Lewickie, N.S., has been sold to G. M. Mattinson.

—The saw mill of Hugh McDonald at Hopewell, N.S., will be offered for sale by public auction on March 4th.

—The Rathbun Company, of Deseronto, are negotiating for the erection of a saw mill at Fenelon Falls, Ont.

—No decision has been reached as to the rebuilding of the old Barnhill saw mill at Pleasant Point, near St. John, N. B.

—J. & T. Conlon are making improvements to their mill at Little Current, Ont., by which its capacity will be increased.

—The Buffalo Hardwood Lumber Company, of Buffalo, have opened an up-town office in the Prudential Building that city.

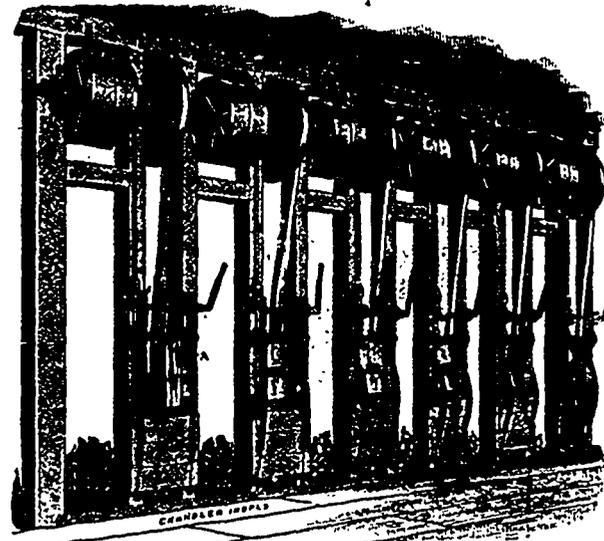
—A large saw mill is being built at Musquodoboit Harbor, N. S., to replace the one destroyed by fire a short time ago.

—The Dominion supplementary estimates contain an appropriation of \$50,000 to provide facilities for floating logs down the St. Maurice river, in the province of Quebec.

—Buchanan & Son, planing mill owners, Goderich, Ont., have admitted John Lawson, of Dunlop, as a partner, and the firm is now known as Buchanan & Lawson.

—The large saw mill built at Fernie, B. C., by the P.R. is being moved to the coast. It was found that

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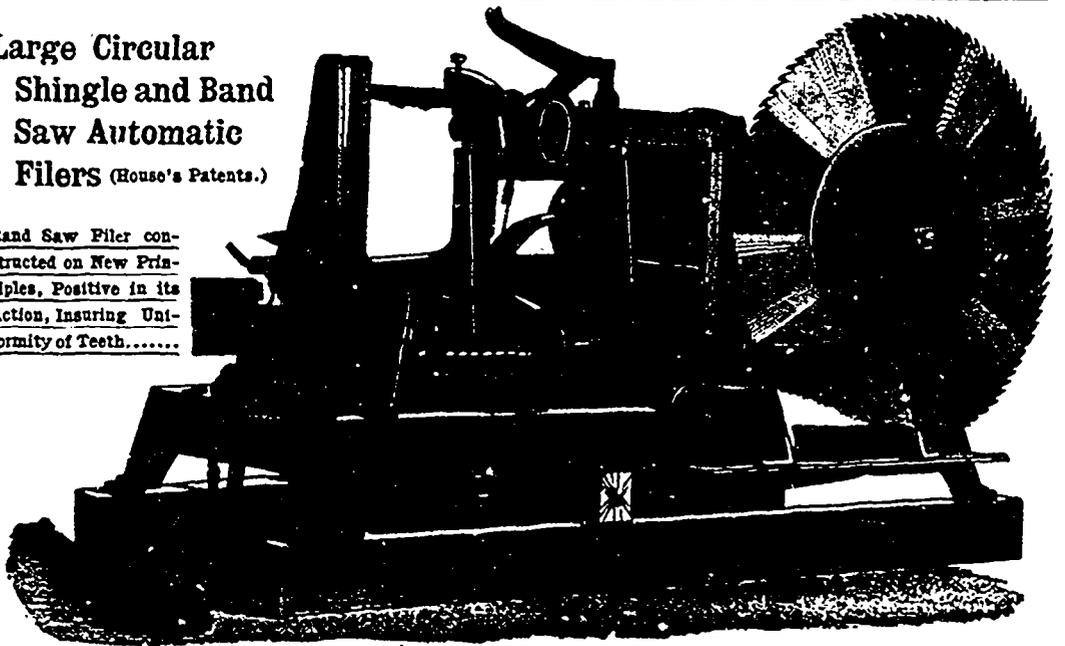
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WOOD PULP ~ ~ DEPARTMENT

THE FIRST FLAX FIBRE PULP MILL.

WHAT is understood to be the first mill in the world to produce flax fibre is now nearing completion at Niagara Falls, N. Y., the owners being the French-Hickman Flax Fibre Company. The process is covered by patents, and consists of the making of chemical pulp from straw, or as termed by the inventor, flax, in such a manner as to be equal to any other pulp for the use of fine papers and boards. It is claimed that it can be made as cheaply as other chemical pulp, is clean, and has a closer fibre.

The flax straw is secured from North Dakota in bales, and is taken from the cutting room to the digesters, where it is cooked in a way somewhat similar to that used in the soda process. The product is then blown out into the blow tanks, where the liquor is drained off through a system of rotary furnaces and the pulp pumped to the washers. After being thoroughly washed it goes to the bleaching tanks, from which it is taken to the beating engines and prepared for the machine.

The main buildings are flanked on the long sides by railroad tracks. On one side the flax product is received, while on the other it is turned out as pulp ready for shipment. The interior arrangement shows a thorough economy of space for the best results. The raw product comes into the main building on carriers and first goes to the digester room. This is a two-storey room, 52 x 72 feet. There are in it five digesters, each 9 feet in diameter and 16 feet long. They were made by the Pusey & Jones Company, of Wilmington, Del., and have a capacity of 25 tons.

The boiler house adjoins this and is 52x76 feet. Here are five 100 horse power tubular boilers, each 66 inches by 18 feet. They were furnished by the Erie City Iron Works, of Erie, Pa.

The next room in rotation is the incinerator room. This is where the peculiar system of the Hickman process takes place. An incinerator, or rotary furnace, is used for burning the liquor. There are also three liquor tanks, 11 feet in

diameter by 11 feet deep, through which the fluid passes. The alkali room is next, 52x84 feet, and two stores, with rock bottom and cement ceiling. This is used for liquor mixing and lime reclaiming. Here are six mixing tanks, each 14 feet in diameter and 8 feet deep. They were furnished by the Dobbie Foundry Co., of Niagara Falls, N. Y. The yaryan room, 50 x 72 feet, is equipped with four steam pumps made by the Stilwell-Bierce & Smith-Vaile Company, of Dayton, Ohio.

Before describing the machine room a word about the machine shop. Here is a perfectly appointed repair room two stories in height, 32 x 50 feet, equipped with lathes, drill press, cutters, planers and other necessary tools. It adjoins the machine room, which stretches out 225 feet by 56 feet, with a solid cement floor. The room is designed for two 96 inch machines, one of which is now being set up. It is from the Pusey & Jones Company's shops at Wilmington, Del., and has two cylinders and twenty-seven dryers. Some 50 feet of this room are allotted for a basement. Here two beating engines from the Globe Iron Works, of Dayton, Ohio, will be set up, as well as a quota of stuff chests, which are being made by Superintendent Campbell.

The store room continues on from the machine room, is 108 x 56 feet, one storey, with cement floor. Here is ample room for storing and shipping the finished product as it comes from the dryers ready for tying-up.

Back of the machine room is the wash and bleach room, 65 x 156 feet, three stories. Here are two beating engines, two large sized blow tanks, 18 feet in diameter by 16 feet deep; ten draining tanks, 25 bleaching tanks and five washers. The engines, drain tanks and washers are from the Pusey & Jones Company, while the bleach tanks are being built by Superintendent Campbell and the blow tanks by the Dobbie Company.

The office and laboratory will complete the main buildings. The former will be 32x36 feet, located in the north-west corner, second story,

and will be modernly appointed. The laboratory adjoins, where the chemical and electrical supplies will be kept and tests made.

Near the south-west corner of the main buildings is the straw, or flax, house a brick structure two stories high, 48 x 54 feet. Here the raw product is received, and is cut and placed in proper form for starting on its way to be transformed into flax pulp. This building is equipped with two cutting machines made by the Winona Manufacturing Company, of Winona, Minn., with a capacity of 25 tons a day. The carriers take the flax, after it is cut the right size, to the digesters.

Back of the flax house, and near the river, is the pump house, a brick fireproof building, 24 x 30 feet in size. It is furnished with one fire pump made by the Lawrence Machine Company, of Lawrence, Mass., and two centrifugal 10-inch pumps, also made by the same company. A filter system will also be installed.

PURCHASES OF CANADIAN PULP.

CONCERNING the large orders reported to have been placed for Canadian wood pulp for this year's delivery, a correspondent writes to the Paper Trade Review, of London, Eng., as follows:

As the very tall yarn regarding the reported purchase of 60,000 tons of Canadian pulp by Messrs. A. Wertheim & Company is calculated to injure the Canadian pulp industry, I hasten to contradict the same.

No such purchase is possible at one time and for one year's delivery. Canada has never yet shipped 60,000 tons of mechanical wood pulp.

It is common knowledge that the Nova Scotia mills sold out by August last for this year's delivery, and the pulp did not go to the firm you mention, although I understand Wertheims took over in October last the contracts of one of the original buyers, for a total quantity of about 20,000 wet tons, which quantity included the product of the Newfoundland mill.

It is therefore absurd to suggest a purchase of a further 60,000 tons from Canada, especially as two productions are still open, and I assume the 20,000 to which I refer have grown in transmission.

The Canada Paper Company is putting a new size digester, 28 feet long and 7½ feet in diameter, in a sulphite mill at Windsor Mills, Que.

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PULP NOTES.

Mr. Lorne McGee has been appointed manager of the Laurentide Pulp Company at Grand Mere, Que.

Mr. Chas. H. Vogel, of Thorold, Ont., is making water power surveys on the Ottawa river for pulp mill purposes.

It is reported that Chapin & McVittie, who own a pulp concession north of Mattawa, Ont., intend erecting a pulp mill there.

It is stated authoritatively that as soon as spring opens the Spanish River Pulp & Paper Company will push work rapidly on their projected pulp mill near Webbwood, Ont.

The imports of wood pulp by Great Britain in 1900 were 488,827 tons, of this quantity 58 per cent. was supplied by Norway, 21 per cent. by Sweden, 11 per cent. by Canada, and 2 per cent. by the United States.

Price Bros. & Company, of Quebec, are said to have subscribed half of the capital necessary for the erection of a pulp mill on the River Du Sud at Montmagny, Que., and it is announced that work will commence this spring.

The Chaudiere Falls Pulp Company is seeking incorporation, capital \$600,000, headquarters Quebec. The applicants include Henry Atkinson, lumber merchant, Etchemin, and Chas. King and H. M. Price, lumber merchants, Quebec.

A change will in future be made in the method of compiling the Board of Trade returns showing the pulp imports into England the British Wood Pulp Association having induced the customs authorities to distinguish between the imports of chemical and mechanical and wet and dry pulp.

Work has begun on the projected site of the pulp and paper mills to be built at Brompton Falls, Que., by an American syndicate which recently purchased a water power from the British American Land Company. It is expected that \$500,000 will be spent on the enterprise. Mr. Tobin, M. P. for Richmond and Wolfe, is interested in the company.

The Quebec Pulp & Paper Company, capital \$350,000, has been organized, the object being to build mills at Indian Lorette. The initial step is to be a ground wood

pulp mill of 30 tons capacity daily, then a sulphite mill of 75 tons and a paper mill of 50 tons. The formation of the company was looked at by R. Wilson-Smith, Meldrum & Company, of Montreal.

It is reported that in the province of Quebec there has been a sharp advance in the price of pulp wood, some loggers asking as high as \$5 per cord on the south side of the St. Lawrence. Many American mills are said to be short of their supply of pulp wood. The International Paper Company, of Niagara Falls, is receiving nearly all of its supply by the carload from Michigan and Ontario.

The Chicoutimi Pulp Company, of Chicoutimi, Que., is preparing to erect another pulp mill near the present one, to have a capacity of 60 tons per day. It is to be a 12-grinder mill, and is expected to be ready for operation early in 1902. Mr. Pratt, the superintendent of the company, thinks that the government should dredge the Chicoutimi river from its mouth to the town of Chicoutimi, as at present shippers are compelled to go six miles down the river to load goods on vessels.

In an address before the Ottawa Board of Trade, Hon. Mr. Shimizu, Japanese consul at Vancouver, spoke as follows regarding the increased shipments of pulp to Japan: "Of course I am very glad to observe, as I said before, that the trade between Japan and Canada has already begun to grow. Take, for instance, wood pulp. Just a few years ago samples of this product were sent to Japan as an experiment, with the result that in 1898 less than 400,000 pounds were exported to Japan, while in the next year over 3,000,000 pounds were sent to my country, and I am told that from the pulp mills at Sault Ste. Marie alone 500 tons of these goods are now being sent to Japan monthly."

Satisfactory progress is being made towards the erection of pulp mills in the Lake of the Woods district. Mackenzie & Mann are preparing to build a mill at Fort Frances, while steps are also under way by another syndicate to build a mill on the American side. It is not unlikely that these two enterprises will be united, as a meeting of the promoters was held in the Queen's Hotel, Toronto, recently, when such a proposition was dis-

cussed. The Keewatin Power Company are reported to have decided to build large pulp mills at Rat Portage, somewhat further north and west than Fort Frances, on Rainy Lake. There is an excellent water power there. The directors of the Keewatin Power Company are: J. Fuller, Hamilton (president); William Gibson, ex-M.P., Beamsville; Alex. Fraser, Ottawa, and Alex. Maclaren, Buckingham, Que.

The revenue derived by the province of Ontario last year from pulp wood dues was about \$13,000, compared with \$4,828 in the year previous, the increase showing the development in this branch of forest product. The quantity in the two years was 65,000 cords and 30,000 cords respectively. The yield of pulpwood on the areas now being cut is probably ten cords to the acre, which means that about 6,500 acres were cut over last year, or about eleven square miles, which is a mere drop in the bucket in northern Ontario. North of the height of land surveyors have estimated that the spruce yield will be from 50 to 75 cords to the acre. Last year's cut of pulpwood yielded the government 20 cents per cord, but an order in council was passed a year ago providing for its increase to 40 cents, which went into effect April 30th, 1900, after last year's cut had ceased. The change provided that the 40-cent rate will apply on timber licensed lands where the rate had been 12½ cents; on lands that were under pulp agreements, at 20 cents; and on lands where permits were issued for small quantities at 25 cents. The new rate does not apply to the Sault Ste. Marie mill for three years yet, the price having been fixed at 20 cents for a certain term by special agreement.

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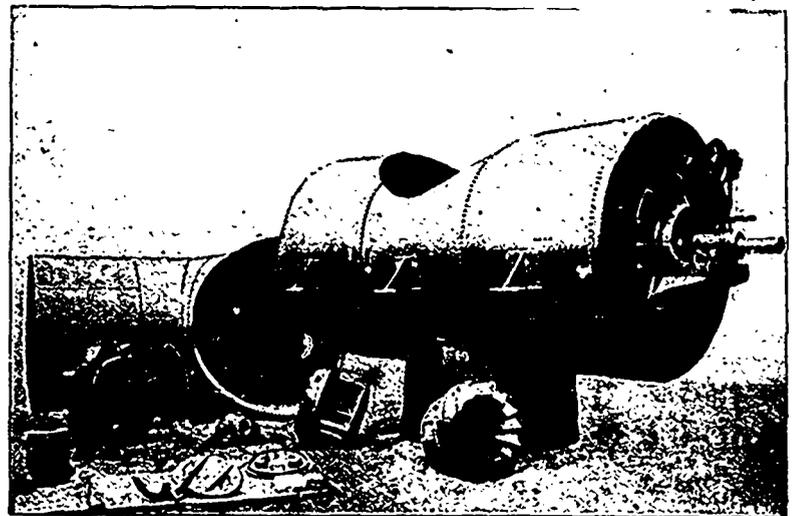
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THE above view shows one of the many styles of setting and case to which our

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may be adapted. This plant was built for direct connection to Wood Pulp Grinders.

We invite correspondence from those contemplating the erection of Ground Wood Mills. Estimates submitted for complete equipments.

Let us have your address and we will send you a copy of our new 1900 Turbine Catalogue, also circulars of the Port Henry Grinder, etc.

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TRADE NOTES.

Mr. D. K. McLaren, belting manufacturer, of Montreal, has appointed Mr. John L. Richardson as manager of his Toronto office.

Mr. John M. Chisholm, manager in Winnipeg for the Rat Portage Lumber Company, has distributed to his patrons suitable souvenirs in the shape of desk rules.

Messrs. W. A. Fleming & Co., 771 Craig street, Montreal, have secured the contract from the Sault Ste. Marie Pulp & Paper Co., Sault Ste. Marie, Ont., for fitting up their sulphite mill with "Camel" brand hair belting and their heavy Empire brand rubber belting, also an order from the Canadian Electro Chemical Company, Sault Ste. Marie, Ont., for fire hose, hand hose carts, branch pipes, shut-offs, etc. They also fitted up their works throughout with the "Camel" brand hair belting, for which they are sole agents in Canada.

The Syracuse Smelting Works Company, of Montreal, advises us that they have recently secured large orders for babbitt metal for immediate and future shipment, and that they have found it necessary to increase their staff of employees. Their Mr. H. Sapery, manager of the Montreal branch, left early in February for a trip to California, and when returning expects to visit the principal points in British Columbia and Manitoba, where they now have an extensive trade. They report that the Syracuse babbitt metal is giving excellent results.

—Messrs. W. A. Fleming & Co., 771 Craig street, Montreal, have this year added to their extensive line of beltings a full stock in all weights of Balata belting of the best grade. This, with their large stock of the celebrated "Camel" brand hair belting (for which they are sole agents in Canada) and rubber, stitched cotton and leather, and solid cotton belting, make them probably the best equipped firm in the Dominion as a general mill supply house. The "Camel" brand hair belting is justly recognized as one of the best saw, pulp and paper mill belts. The manufacturers claim it to be more durable and freer from stretch than anything else used for belting, and that it possesses the great advantage of not being

affected by dampness, heat or steam. W. A. Fleming & Company also carry a stock of wood split pulleys and a complete line of firehose and fittings for the mill.

Messrs. G. & J. Esplin, box manufacturers, Montreal, have recently purchased a 30 inch main drive, "Camel" brand hair belt from Messrs. W. A. Fleming & Co., Montreal, sole agents in Canada for Messrs. R. Reddaway & Co., Manchester, Eng. At the Dominion Bridge Works, Lachine, P.Q., the "Camel" brand hair belting is in general use throughout the several shops, driving all kinds of machinery. On lathes and machinery where the tight and loose or reversible pulleys are used, the D. & A. ball bearing shifter is put on. Their superintendent reports that he gets excellent results and wear out of the "Camel" brand, and a uniform and steady power.

The McFarlane, Neill Mfg. Company, Limited, of St. Marys, N. B., has had wonderful success since they opened up last summer and took over the business formerly run by the late Walter McFarlane. Large additions have been made to the plant, which formerly was an excellent one, and much new machinery has been added. Between 400 and 500 peavies alone are turned out each day. One recent shipment was of 1250 sent to Newfoundland. The concern also manufactures hames and boot caulks. Mr. Neill is one of the best known hardware men in the maritime provinces, and has had a thorough connection with the trade for many years.

Mr. John Palmer has recently enlarged his factory in Fredericton, N. B., and has now nearly doubled his capacity for the production of larrigans, shoe packs, moccasins, sporting boots, etc. Mr. Palmer has for years been recognized as one of the foremost manufacturers in Canada of these lines of goods, and his output is the largest in the Dominion. A new building has been erected as large as the old one, and new machinery put in. His son, Mr. C. K. Palmer, who has been well known as a traveller for the Hartt Boot & Shoe Co., Limited, of Fredericton, N. B., has left that concern and is now assisting Mr. Palmer in the factory, in charge of the shipping and manufacturing departments. The

Moosehead brand of goods is now widely known among lumbermen and woodsmen everywhere in Canada. In the firm's advertisement, which appears below, are illustrations of some of Mr. Palmer's lines. Besides those of which cuts are given some others are very popular. Lumbermen, foremen, scouts, sportsmen, etc., know how to appreciate the sporting boot made by this firm (No. 38). It has a long leg, light bellows tongue, Klondyke eyelets, and is waterproof. It is well gotten up, and has a good appearance. No. 39 is a black long legged larrigan with a strap across the ankle. No. 39 is a long brown Skowhegan larrigan having sole leather heel and lap. No. 40 is an oil tanned, black, waterproof, bellows tongued shoe pack. An illustration is given of No. 45, which is a special line this season, and is making great headway. It is a thoroughly waterproof, flexible shoe that won't rip.

Charles D. Dickenson, of Charles Dickenson & Co., Woodstock, N. B., was in Toronto a few days ago, on his return from Ottawa and points west. The above firm is extending their upper province trade greatly. Their larrigans and shoe packs are receiving unusual attention from dealers owing to the fine workmanship, durability and finish. The "Henderson Non-rip Patent Larrigan" is a success, and wearers report to dealers all over the country that they are especially water-tight and that the staying qualities of the seams are excellent. The vamp overlaps the quarter, and stubs do not tear the flaps, as in some other makes, it is claimed. Mr. Dickenson claims that his larrigans can be guaranteed to wear out without ripping. He has had a life long experience in the leather trade, and his leathers should be reliable. Owing to the demand for his output of footwear he has recently lessened his output of upper leather, and will attend in future almost entirely to footwear manufacture. Last season he was unable to fill his orders in full and had to pass some very large ones. He looks for material increase this season. A new feature of his manufacture is a lumberman's driving shoe made out of larrigan stock, oil tanned, and presenting a neat appearance. Mr. Dickenson has received a number of orders from shoe manufacturers for this class of leather to put in next season's stock.



JOHN PALMER,

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Manufacturer of the ...

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"MOOSEHEAD" Brand.

These goods are made from THOROUGHLY oil tanned, waterproof leather, and are handled by the

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Oil Tanned Sporting Boots, Shoe Packs, Larrigans and Moccasins

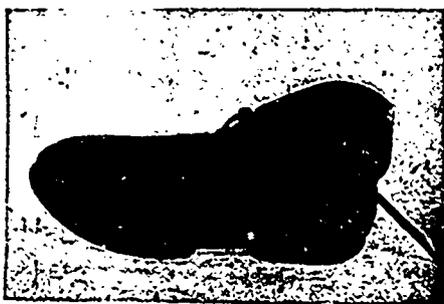
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Especially adapted for
Lumbermen, Woodsmen,
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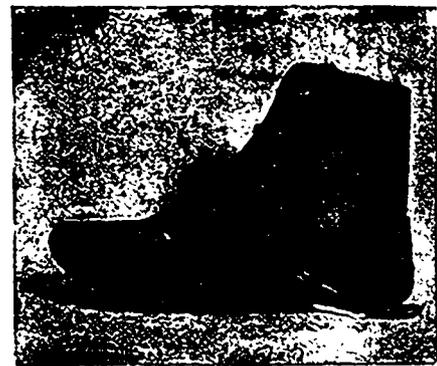
Catalogues on Application,



No. 20—Men's Brown, Skowhegan, Waterproof, Bellows Tongue Shoe Pack, Laced, Klondyke Eyelets.



No. 36—Men's Black, Yellow or Skowhegan, Bellows Tongue Packs, Sole Leather Heel and Lap, Klondyke Eyelets.



No. 23—Men's Hair Lined, Bellows Tongued Shoe Pack, Laced, Klondyke Eyelets.



No. 45—Men's Brown, Skowhegan, Bellows Tongue, Goodfoot Welt, Waterproof Shoe.

PERSONAL.

Mr. F. C. Todd, landscape architect, of Montreal, has become a life member of the Canadian Forestry Association.

A recent issue of the New York Lumber Trades Journal contains a portrait and sketch of Mr. A. H. Campbell, the New York representative of the Robinson-Edwards Lumber Company, of Burlington, Vermont. This company was organized in 1897, with Mr. D. W. Johnson as president, Mr. W. C. Edwards, M.P., of Ottawa, vice-president, and Mr. C. L. Smith secretary and treasurer. The company was formed to handle in the United States the lumber manufactured by Messrs. W. C. Edwards & Co. for that market. Mr. Campbell is 26 years of age. His first connection with the business was with W. C. Edwards & Company at Rockland, Ont., and afterwards in their retail yards at Ottawa.

The CANADA LUMBERMAN recently had the pleasure of a call from Mr. W. M. Nones, of the firm of J. A. Nones Company, merchants and importers, London, England. Mr. Nones visited the United States and Canada, his mission being to arrange for shipments of sash and doors and moulding stock. He states that there is a large market in Great Britain for this class of material. In his opinion Canadian lumber manufacturers having a wood-working plant might find it very profitable to put in a few lickers to cut moulding stock, as by this means considerable refuse material could be utilized. Mr. Nones expected to remain on this side until the early part of April.

BAND VS. CIRCULAR.

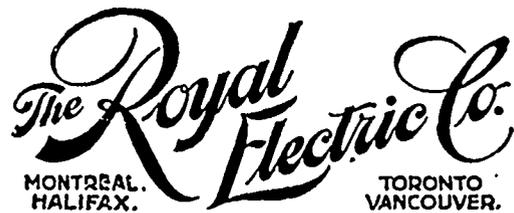
Practical lumber manufacturers are coming to the conclusion that there is something of a "fad" element in the popularity of the band mill. The efficiency of the band is admitted, and its advantages over the circular for certain classes of work, but it is coming to be believed

that in many cases the band has been installed where a circular would have been better.

There are two things which limit the economic use of the band; namely, size and value of timber. Small logs can be cut more cheaply by the rotary saw than by the band, and in most cheap timber, unless it be too large in size, the circular is the more economical. Just where the dividing line is a matter for discussion and experience. Some say that a stumpage value of \$2.00 a thousand marks the dividing line. If it is worth no more than that sum it should be cut with a circular; if above that, with a band. Some would use the circular on logs under, say, 15 inches in diameter; others to 20 or 24 inches, while of course some claim that the band is the machine for any size and any quality of logs. But the vast majority of opinion is that there is a dividing line in both quality and size.

Even granting that the band mill will make a cut as fast under any circumstance as a circular, which is denied by most users, the quality of pre-eminence in speed coming with the larger logs, it is a more sensitive machine, requires a higher degree of talent to keep it in order, and consequently involves higher wages. Where a circular saw filer might be hired for \$3 a day a band saw filer would ask \$5. Further, this extra sensitiveness of the band requires that the entire plant should be in better shape to do a given quality of work than if a circular were used. Unless a mill can be kept in perfect condition as to solidity of the foundation for the saw, alignment of track and perfect condition of the saw, the circular will do absolutely the best work. Everyone familiar with band sawed lumber knows that a good deal of the product coming from second-grade mills is unevenly sawed, of irregular thickness and often "lumpy." The tendency of a circular is to keep itself in line and even hold a log to the proper cutting line, whereas the band is easily thrown out of line by a shaky track or even by log imperfections.

The band saw mill is a distinct and notable advance in lumber manufacturing appliances and methods, but it should be confined to its proper place, and what that place is may well be carefully studied by mill men.—American Lumberman.



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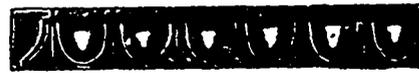
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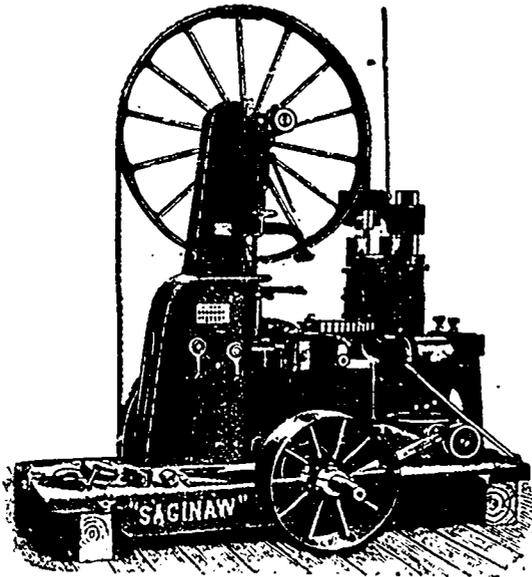
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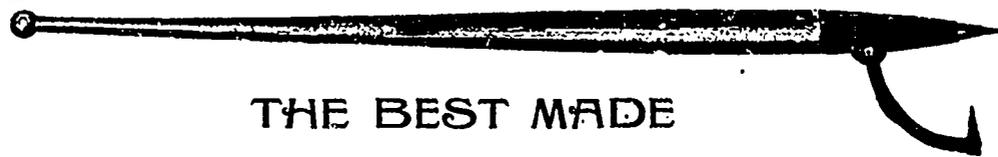
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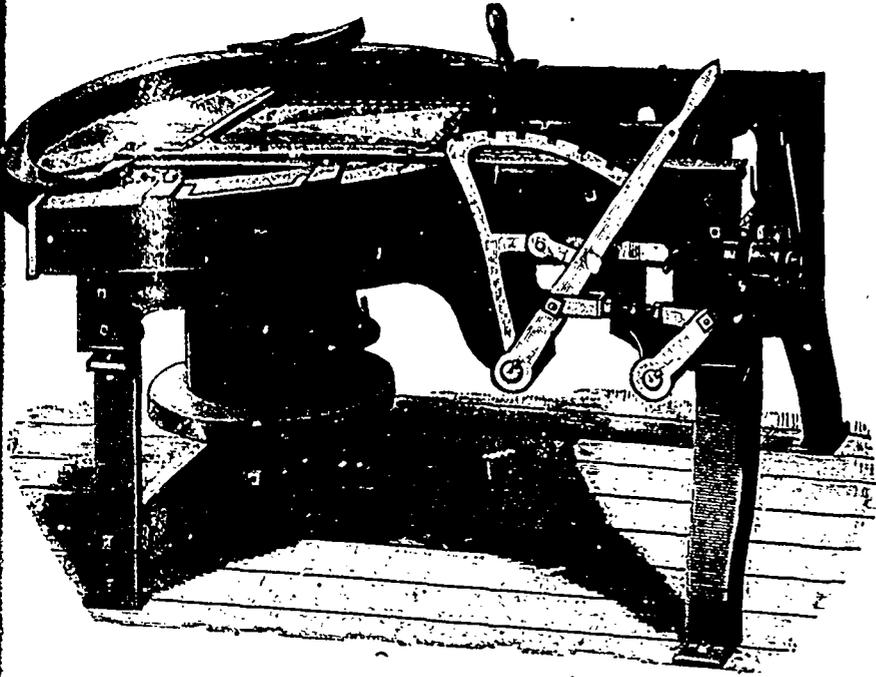
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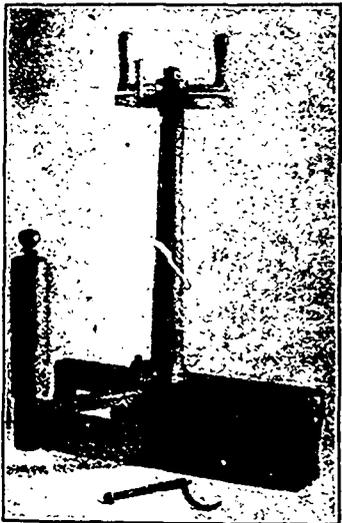
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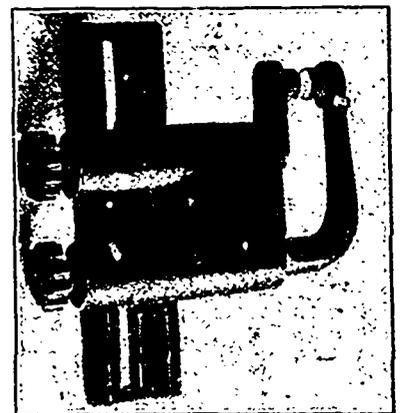
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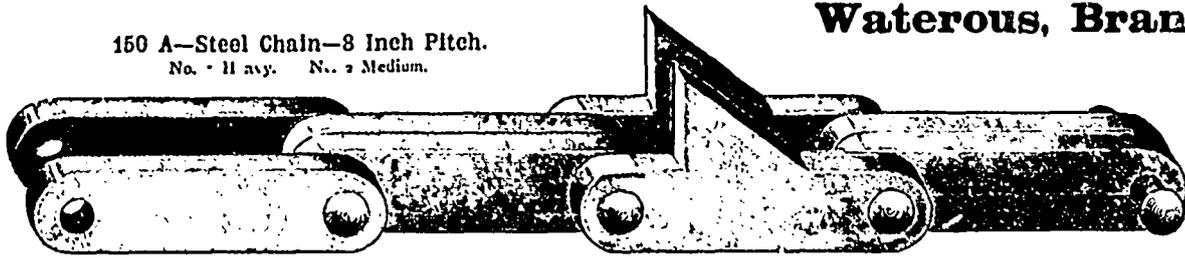
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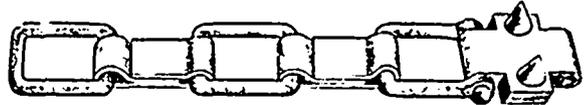
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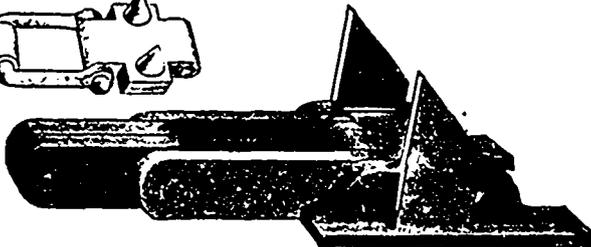
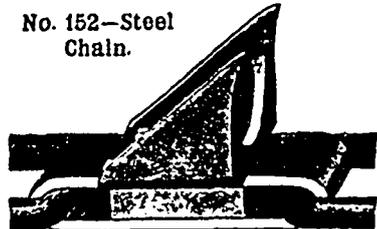
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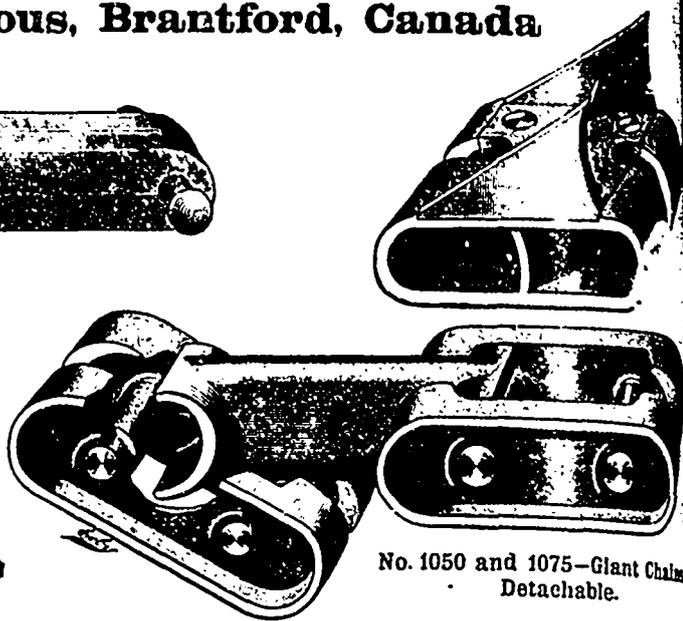
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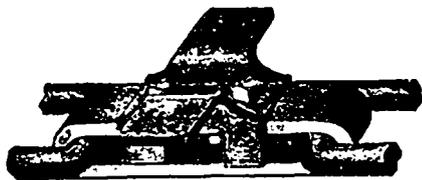


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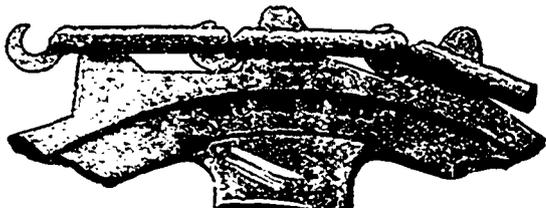
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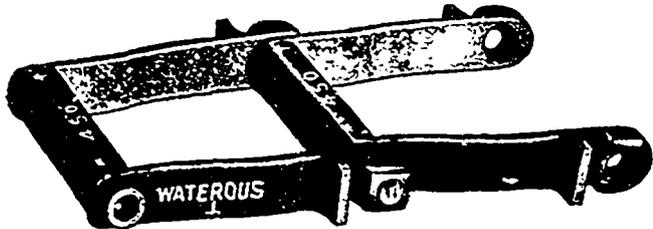
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Scraper Attachment.

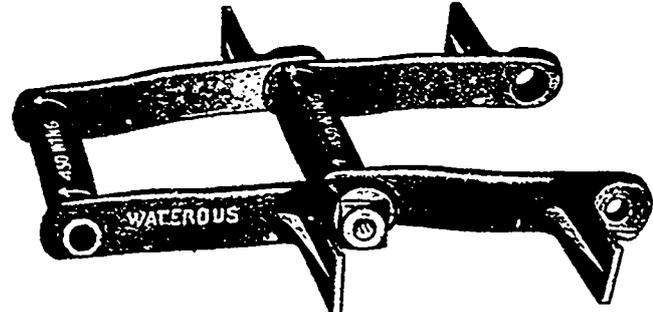
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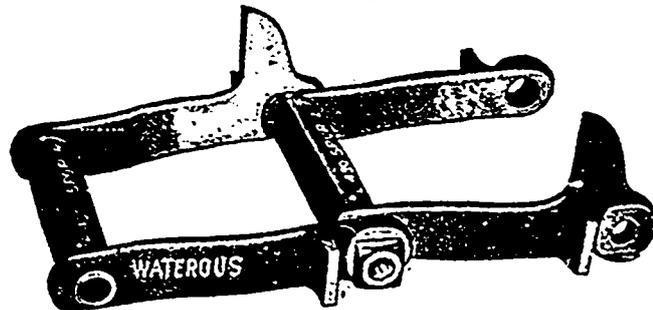
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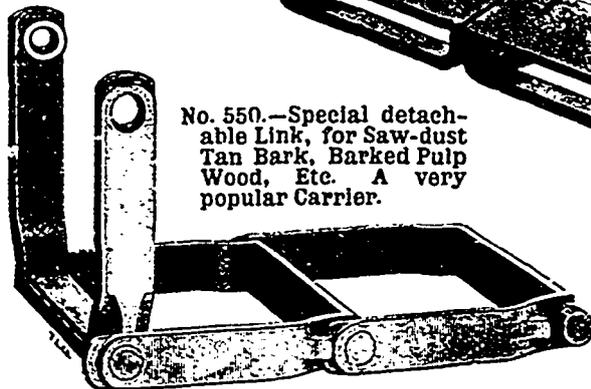
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No. 450—Spur Link. (Right and Left.)



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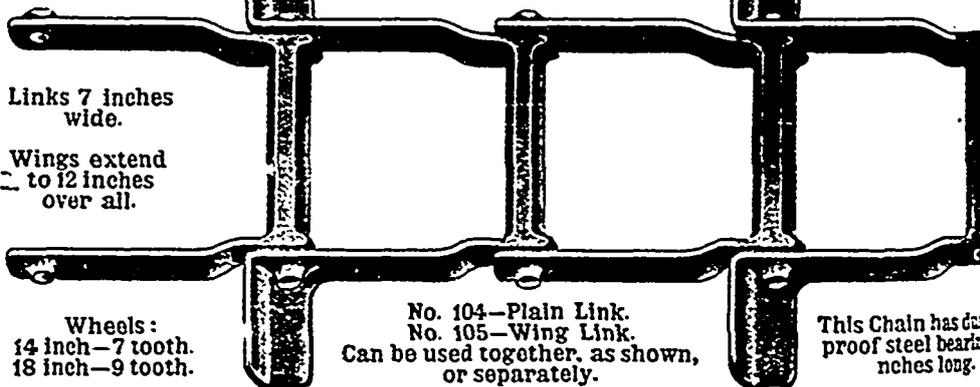
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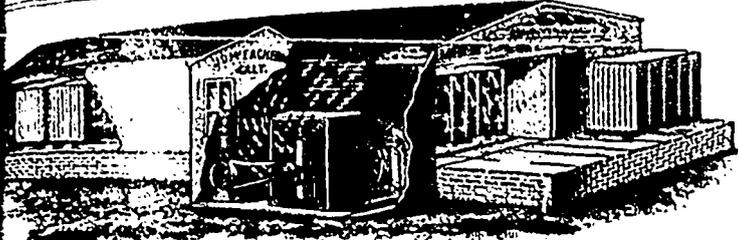
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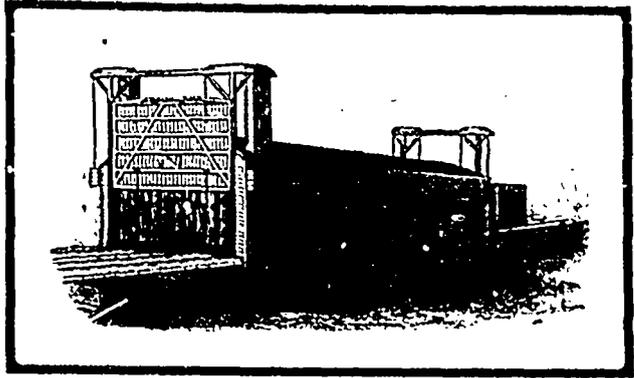
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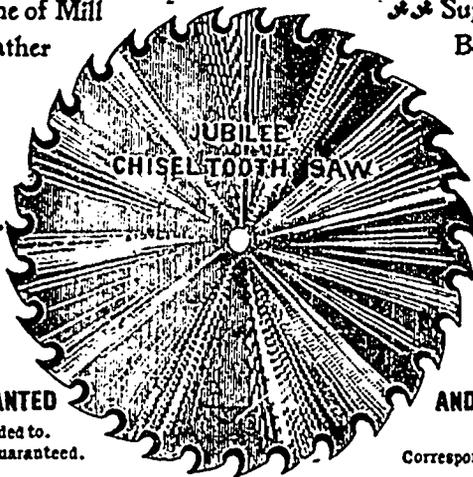
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