

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Title on header taken from:/
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments:/
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XVII. }
NUMBER 5.

TORONTO, ONT., MAY, 1896

TERMS, \$1.00 PER YEAR
Single Copies, 10 CENTS.



MAGNOLIA METAL

In Use by Eight Leading Governments.

BEST ANTI-FRICTION METAL

For All Machinery Bearings

MAGNOLIA METAL CO.

OWNERS AND SOLE MANUFACTURERS

74 Cortland Street, NEW YORK

Chicago Office:
TRADERS BUILDING.

Montreal Office:
H. McLAREN & CO., Agents.

DONOGH & OLIVER

WHOLESALE DEALERS IN

LUMBER, LATH AND SHINGLES

TORONTO: 204-205 Board of Trade Building.

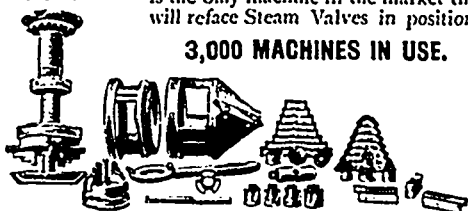
BUFFALO: Dock foot of Hertel Avenue.

THE "MORSE" VALVE MACHINE

"The Morse"

is the only machine in the market that will reface Steam Valves in position.

3,000 MACHINES IN USE.

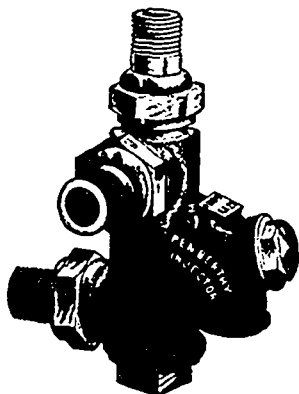


Valve Reseating Outfit.

DARLING BROTHERS

SOLE MANUFACTURERS

"Reliance Works," - MONTREAL.



THE... PENBERTHY AUTOMATIC INJECTOR...

Should be in every Lumber Mill

PENBERTHY JET PUMPS...
WATER GAGES...
OIL CUPS...
ARE THE BEST

85,000 Engineers have used it, and declare it unequalled as a Boiler Feeder.

CATALOG OF SPECIALTIES ON APPLICATION.

Branch Factory:
WINDSOR, ONT.

PENBERTHY INJECTOR CO. DETROIT, MICH.

John Bertram & Sons

CANADA TOOL WORKS

DUNDAS - ONTARIO.

Any one desiring a good Second-Hand Tool, should write us for prices. Have several we will dispose of at a bargain.

CORRESPONDENCE SOLICITED.

C. C. CLEVELAND

G. F. CLEVELAND

J. L. Goodhue & Co.

MANUFACTURERS OF

LEATHER BELTING...
AND LACE LEATHER

Danville, Que.

Silver Solder

For Repairing

BAND SAWS.

Price \$1.00 per ounce, in 10 ounce lots.

P. W. ELLIS & CO.,

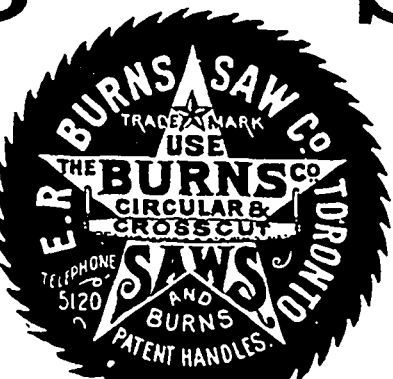
31 Wellington St. East, TORONTO, ONT
MANUFACTURING JEWELERS.

S A W S

A A

W W

S A W S



S A W S

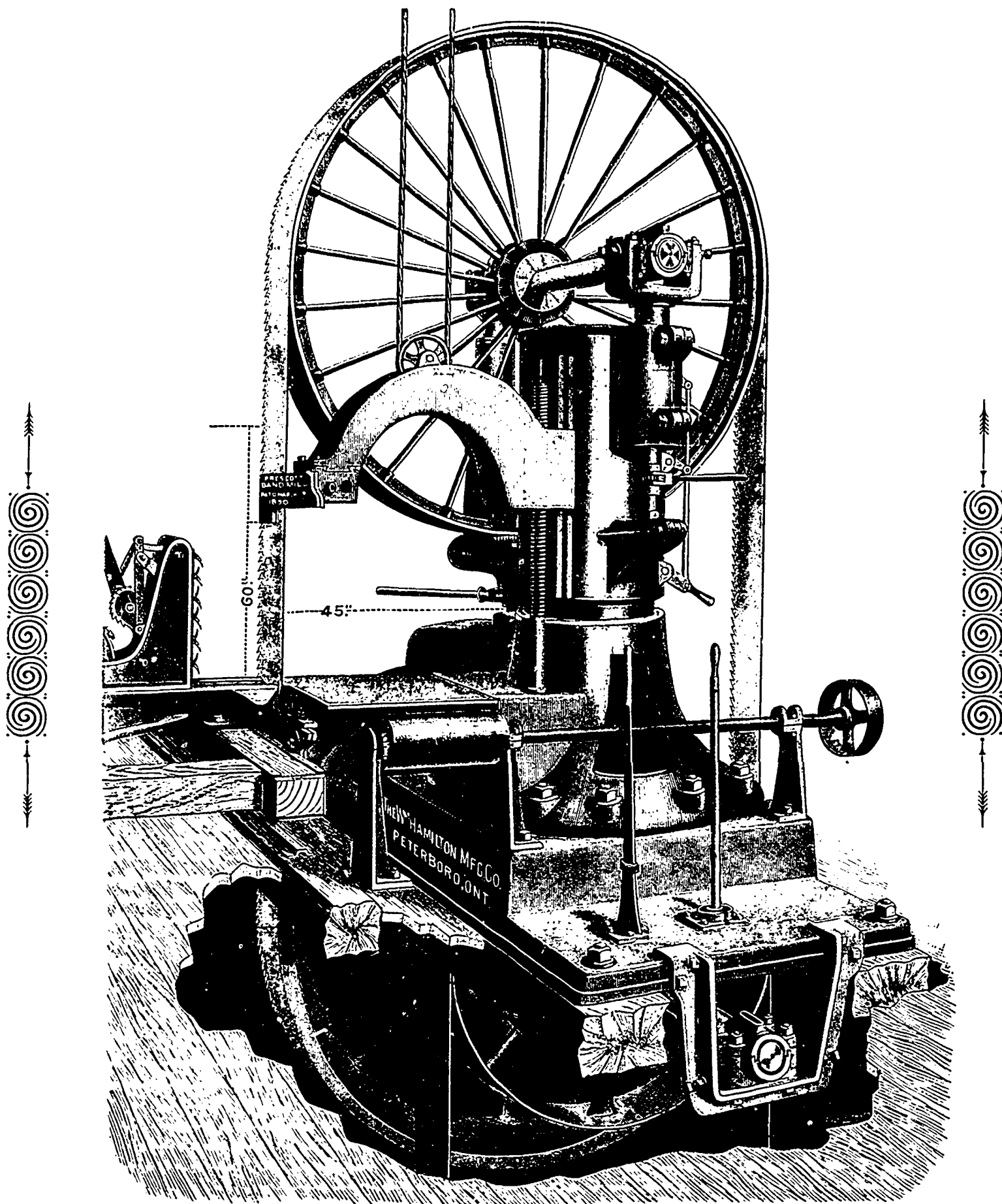
A A

W W

S A W S



THE NEW PRESCOTT Band Saw Mill



THE W. HAMILTON MFG. CO., LTD.

PETERBOROUGH, ONT.

Branch Office: Vancouver, B. C.

THE CANADA LUMBERMAN

VOLUME XVII. }
NUMBER 5.

TORONTO, ONT., MAY, 1896

TERMS, \$1.00 PER YEAR
Single Copies, 10 CENTS.

ONTARIO LOG OUTPUT.

THE quantity of logs taken out during the winter largely determines the amount of lumber which will be placed upon the market during the following season, notwithstanding the fact that the total output is not always manufactured. Consequently the question is one in which lumbermen are deeply interested. It is not possible at this date to give information which will prove to be absolutely correct, as the drives are just being started, and low water may result in considerable quantities of logs being tied up. It is believed, however, that the total output for the past winter compares favorably in extent with that of the previous season, with the probability of a slight curtailment. Its extent, nevertheless, is greater than the present demand for lumber would warrant, when the fact is considered that large stocks of lumber have been carried over by manufacturers for the past two years. In some sections a larger cut than was desired was necessitated in order to remove timber which had been damaged by forest fires.

In the Ottawa valley the winter was very favorable for operations in the woods, and the log output exceeds that of a year ago.

In the Georgian Bay district the quantity of logs taken out by Canadian firms is said to be below that of last season, while on the other hand the operations of American companies are believed to be more extensive than last season. While some of the Canadian operators have increased their output, others have taken out very small stocks, and some of the mills will not be operated this summer owing to the large stock of lumber carried over.

The Georgian Bay Lumber Co., of Waubushene, have slightly exceeded last year's output. Their supply is estimated at from 35,000,000 to 40,000,000 feet. The Ontario Lumber Co.'s operations will, in all probability, show a curtailment.

The Irwin Chapman Lumber Co. have taken out 100,000,000 feet on the Wahnapiatae river, and Munro & Gordon 11,000,000 feet at Sudbury. The output of Graham, Horne & Co., Fort William, is in the vicinity of 11,000,000 feet.

The Whaley Lumber Co., of Huntsville, have taken out three-and-a-half million feet, while last season their output was two millions.

The Spanish River Lumber Co., of Spanish River, estimate their output at 22,000,000 feet,

against 19,205,000 feet last season. There is to come down the Spanish river this spring in the neighborhood of 200,000,000 feet. Last year 180,000,000 feet came to the booms. The White Fish river will probably show an output slightly exceeding 22,000,000 feet.

The output of the Keewatin Lumber Co., of Keewatin, is placed at 8,500,000 feet. They have 6,000,000 feet of last season's logs in the

years, as several firms have curtailed considerably.

The following figures show the quantities taken out by J. E. Murphy, of Hepworth Station, in the past two seasons:

1895.	1896.
3,000,000 Hemlock.	1,750,000 Hemlock.
830,000 Hardwood.	1,050,000 Hardwood.
150,000 Cedar and Pine.	255,000 Cedar and Pine.
7,000 Pieces Ties.	6,300 Ties.
8,000 Posts.	4,500 Posts.

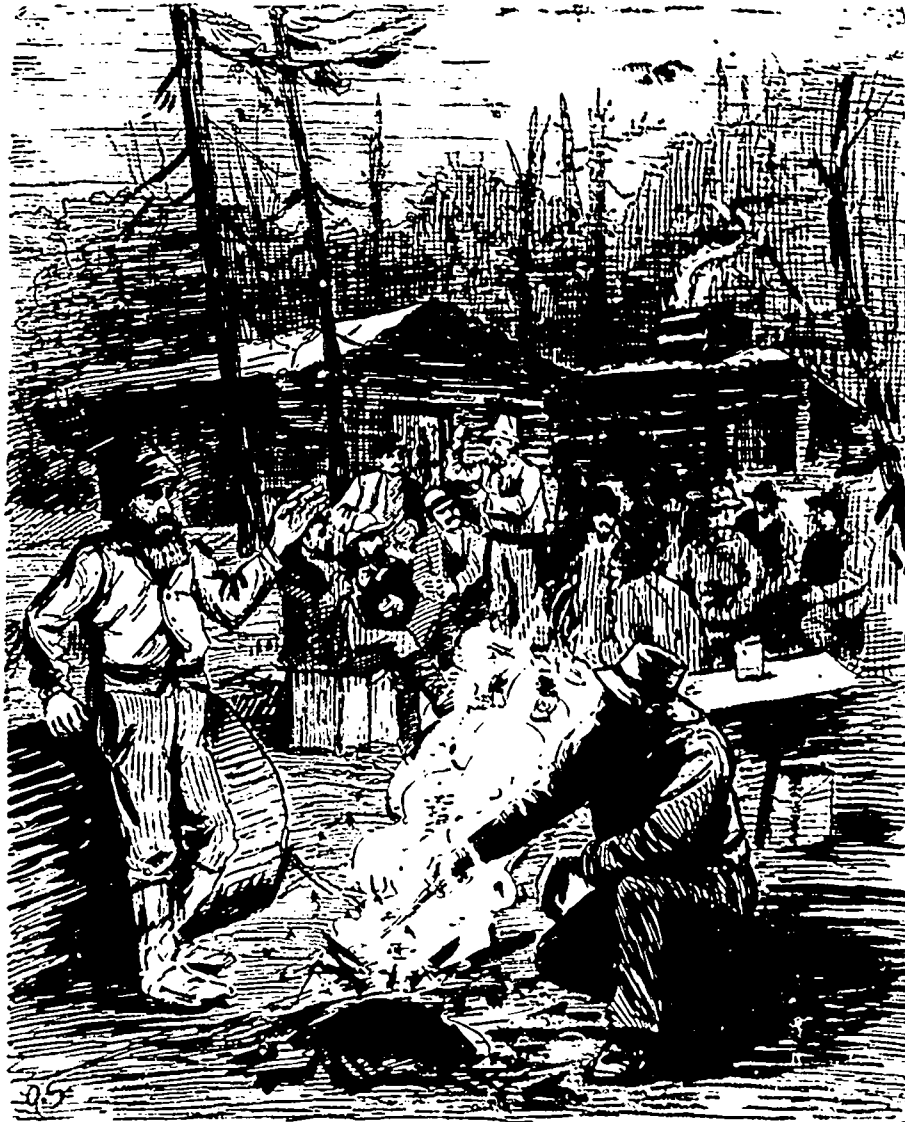
Mr. Murphy is carrying over a considerable quantity of hemlock and hardwood lumber. The mills in that vicinity have taken out larger stocks of hardwoods than in 1895, but the stock of hemlock is probably a little lighter.

Macpherson & Schell, of Alexandria, Ont., have taken out this winter the following stocks, being about the same as last year: 1,200,000 ft. of basswood; 850,000 ft. of ash; 500,000 ft. of soft elm; 150,000 ft. of hard maple; 50,000 ft. of birch; and 500,000 of hemlock, spruce and other logs. They have at their factories 850,000 ft. of elm logs, 2,000 cords of heading bolts, and sufficient cedar bolts for 6 millions of shingles. The stocks of eleven other mills on the C. A. R. and C. P. R. east of Ottawa, and on the G. T. R. east of Brockville, show, perhaps, a slight decrease as compared with last year's stocks.

SPOOL WOOD AT MATANE, QUE.

It is not generally known that a large quantity of spool wood is manufactured yearly on the Lower St. Lawrence, in and around Matane. It is seventeen years since this industry started there, and several million feet are exported to Great Britain yearly. Last year more than 4,000,000 feet were shipped. It has been of much benefit to the people in a country where agricultural returns are small and fishing has gone down to almost a minimum.

But a small quantity of spool wood will be made this winter, as the spool centers are placing their orders in Maine, where there are greater facilities for shipping and disposal of waste, which is great. However, as white birch becomes scarcer in Maine, the thread makers must look for their supplies elsewhere, as long as they use spools for thread, which is likely to be for some years yet. Spoolbars should be sawn in the winter, before the frost leaves the wood, which will then retain its white, fresh appearance, also, it must be protected from rain and weather as much as possible while drying.



THE LAST NIGHT IN CAMP.

To-night they meet like comrades tried,
And tell of dangers dire,
At dawn they'll part to scatter wide;
As the sparks of their shanty fire.—ANON.

water. In the season of 1895, they sawed 9,500,000 feet, and will probably saw more this year. The Ontario and Western Lumber Co., of Rat Portage, are said to have taken out about 8,000,000 feet. The total output of the Lake of the Woods district is placed at 30,000,000 feet.

J. W. Howry & Sons, of Fenelon Falls, manufactured a little over 25,000,000 feet of lumber in the season of 1895, and expect to manufacture about 40,000,000 ft. this season. A quantity of logs were left over from last season, which, with the past winter's output, will make this amount. In that vicinity the output is below that of previous

NOVA SCOTIA NOTES.

[Special Correspondence of the CANADA LUMBERMAN.]

THE winter throughout the province of Nova Scotia has been very favorable for cutting and hauling lumber to the banking points, and now the outlook for stream driving is good. There is an abundance of snow in the woods, which the cool weather is preserving until the ice in the sluggish parts of the river and in the lakes melts, and the probability is that with the rains that may reasonably be looked for, stream driving will go off with a rush. Along the south shore of the province driving is now being pushed. The streams along that shore open earliest, so that the mills get to work early in April.

There is splendid water power on the La Have, Port Medway, Liverpool, Jordan, Shelburne and Clyde rivers, a part of which on each is utilized as power for saw mills. There are also pulp mills—mechanical or grinding process—at New Germany on the La Have, Mill Village, on the Port Medway, and at Milton, on the Liverpool rivers.

The pulp mills at New Germany and Milton are owned by the same company, represented by Hon. A. G. Jones, Halifax, the superintendents of both mills being brothers, the Messrs. Hughes. They are thoroughly practical men in their line, which is proven by the success they are meeting with in the business. The Milton mill turns out thirty-four tons of wet pulp, and the New Germany mill nearly as much. The product of the latter is taken by train to Lunenburg, about forty miles, thence by vessel to Halifax, where it is shipped to England. Shipments are also made to Boston direct from Lunenburg and Liverpool. The Milton mill is about four and a half miles from shipping point, to which the pulp is hauled by teams at present, but arrangements are being made to build an electric railway from the shipping point to the mill and some ten or twelve miles further up river to Greenfield, the power to be supplied by water at the pulp mills. All these pulp mills run day and night from one o'clock Monday morning till twelve o'clock Saturday night, and it takes no small amount of timber to supply them. They give steady employment to a large force of men in all the operations from the woods to the shipping point, besides the cargoes furnished vessels.

At Mill Village, on Port Medway river, J. P. Mitchell & Co. have a large double gang, water power saw mill, but it is not being operated this year.

Messrs. J. & J. Coop, Milton, have a steam and water power gang saw mill at Brooklyn, three miles east of Liverpool. The mill is furnished with lath, shingle and planing machinery. The Messrs. Coop have a large area of good timber land near the mill and make a specialty of cutting frame and ship timber, besides sawing for the West India and South American markets; they ship from Liverpool.

At Milton, two and a half miles above Liverpool, there are five mills on one dam, owned by Messrs. Tupper Bros., John Millard, Ira P. Freeman, A. T. Freeman and John G. Morton. With the exception of Mr. Millard's mill they are all single five gang mills, that is, the log goes through the gang in its sound state, the boards all being edged afterwards. These mills cut principally boards for the West India, South American and Boston markets. Mr. Millard has completely remodelled his mill during the past winter; formerly it was a rotary. He has changed it over to use the rotary for slabbing the logs and put in a stock gang, patent parallel edger, and all the modern improvements. Mr. Millard also has a rotary mill, water power, near Brooklyn, and a sash, door and planing factory at Liverpool, and also carries on shipbuilding at the latter place. At the present time he has two large vessels nearly finished, one of them for a steamer. Mr. Millard is putting up a large hotel in Liverpool, to replace the "Trilby," burned in the great fire last year. He is also a large importer of West India goods, shipping along the coast and to Newfoundland.

Three quarters of a mile above the last named mills on same river there is another dam, on which there are three mills. The owners are Eldred Minard, William Ford and Harlow & Kempton. Those of the two former are single five gang mills and saw boards, while that of the latter is a gang and rotary mill, with lath and box machinery. They also have a factory apart from the mill, with planers, resaws and box machinery, where everything is utilized that can be turned to a profit. Messrs. Harlow & Kempton ship a large quantity of lumber besides their own cut. They also do a large general store business.

Messrs. Gaudner & Storratt, Brooklyn, have a very

nically arranged water power, rotary mill, with shingle, lath and planing machinery.

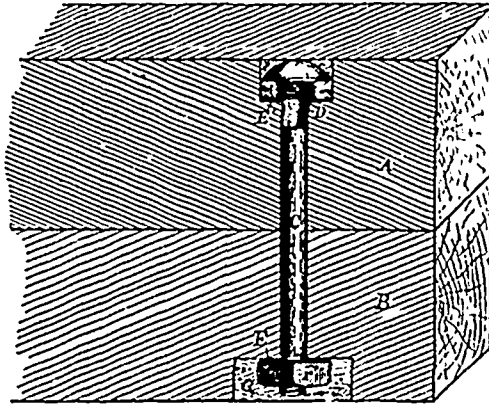
Mr. Nathan Gardner, Brooklyn, has a shingle factory, which turns out a large quantity of shingles in the run of a year, most of which are shipped to the West Indies and Newfoundland.

During the sawing season, Milton, Brooklyn and vicinity are busy places, very prettily situated, within sight of the Atlantic ocean, and if "Eli" wants a fine trip this summer send him here.

W. J. P.

CANADIAN PATENTS.

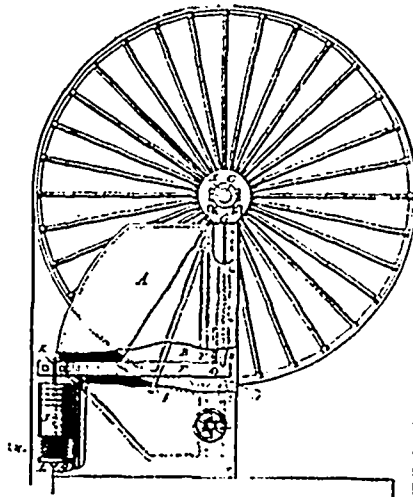
A patent has recently been granted to Alexander McEwan, of Calumet, Que., for a method of floating heavy timber, as shown by the accompanying illustration. The



METHOD OF FLOATING HEAVY TIMBER.

invention will prove interesting to lumbermen, and is described by the patentee as follows: An improved method of fastening hard or heavy timber to soft or light timber for the purpose of floating such hard or heavy timber, consisting in a bolt passing through the timbers at or near each end of same and under the head of which bolt a spiral spring is placed.

D. B. Hanson, of San Francisco, and the Edward P. Allis Co., of Milwaukee, U. S., have been granted a patent in Canada for a band saw-mill, as illustrated below. The inventors' claim is as follows: The combination of a main frame provided with guides, a supplemental frame or yoke



BAND SAW-MILL.

movable in said guides, an upper band wheel shaft, and pedestals or supports for said shaft carried by the yoke, the axes of the shaft and pedestals being in a common plane with the guides. In combination with the main frame of a band saw-mill, a sliding yoke, frame B mounted within the main frame, and provided with lugs d, and with stops f, stirrups F carried by said lugs, a lever E carried by the stirrups, pedestal G mounted and movable in the yoke, a band-wheel shaft carried by said pedestals, and rods extending from the lever to the pedestals. In combination with frame A, having recess g, shaft C, pedestal G supporting said shaft, lever E supporting said pedestal, and weight J carried by lever E, and located within the recess.

At Fowler's saw mill at Canaan, N. B., on the 3rd ultimo, George Delehunt, of Parrsboro, was caught in the machinery and instantly killed.

"CUT-OFFS."

BAY CITY, MICH., 27th March, 1896.

To the Editor of the CANADA LUMBERMAN:

DEAR SIR,—In your March number you speak of "cut-off," and would like to bring producer and consumer together. I have made a specialty of handling small hardwood piece stuff through Massachusetts and Connecticut, and have had as many as 344 customers, doing a business from \$2,000 to \$5,000 per month, the largest three months sales being \$17,863. It is a very difficult business to handle. The chair, tool and toy men are all right and need but few personal calls. The novelty, specialty, dealers, turners and enamellers need frequent visits and are chronic kickers, often times with reason, as the mill man does not use due care to cut exactly to size, and the stock is not properly bunched, counted and marked. This stuff must be free from all defects, true to size, dry, bright, straight, and shipped promptly when required. If this is adhered to there is no doubt of success, as there is a large and growing demand for such stuff.

This trade cannot be done on commission for the reason that often times both the producer and consumer will try and save the commission by dealing direct, and so the middleman is out. At least this was my experience.

Yours respectfully,

R. A. JOHNSTON.

PERSONAL.

G. H. Miles, a well-known lumberman of St. John, N. B., is dead.

Mr. David McLaren, lumber merchant, of Ottawa, Ont., has recently returned from Great Britain.

Francis Smith, a prominent lumber surveyor of St. Stephen, N. B., died on the 11th of April, at the age of sixty-one years.

The death is announced of Mr. Charles Bertrand, of Isle Verte, Que., who for nearly half a century carried on a saw mill business and spool factory at that place.

Messrs. R. H. Smith, Wm. Power, Stuart Dunn, and Hon. John Sharples, representative Quebec lumbermen, have returned from the English markets, and report a satisfactory business.

Mr. Thomas Mackie, the well-known lumberman of Renfrew, Ont., has been unanimously chosen as the Liberal candidate to contest North Renfrew at the approaching Dominion election.

The LUMBERMAN had the pleasure of a call recently from Mr. William Irwin, lumber merchant, of Peterboro', Ont. Mr. Irwin expresses confidence in Canadian lumber, having recently become the possessor of additional timber limits.

Mr. W. B. Snowball, the popular manager of Hon. Senator Snowball's lumber business at Chatham, Ont., has recently taken unto himself a bride, in the person of Miss Bertha Harris. The LUMBERMAN extends its congratulations.

Mr. C. Beck, of Penetanguishene, Ont., will in all probability receive the Liberal nomination for Algoma at the forthcoming Dominion election. Being a large lumberman, and owning several timber limits, Mr. Beck's chances of success are considered good.

Mr. John Briggs, of the firm of Briggs & Sons, sash and door manufacturers, Brockville, Ont., succumbed to the grim hand of death a fortnight ago. The deceased was 72 years of age, and had been connected with the business interests of Brockville for more than half a century.

Mr. Henry Dufell, who had been a resident of St. John, N. B., for fifty-four years, died in that city a fortnight ago, at the age of 80 years. Mr. Dufell was formerly connected with Messrs. Jardine, lumber operators, and afterwards went into business for himself, retiring from active life six years ago.

Mr. Arthur Forchheimer, representing Hugo Forchheimer, lumber merchant, of Frankfort-on-the-Main, Germany, is at present on a visit to this continent, with a view of investigating the possibilities of exporting hardwood and other lumber. He states that in many parts of Europe the lumber consuming trade are entirely unacquainted with American woods, with the exception of pitch pine.

The flagstaff standing in Kew Gardens, London, measures in height 159 feet, the weight being 4 tons, 8 cwt., 2 qrs. The wood is the Douglas pine of Vancouver's Island.

BOILER EXPLOSION AT RIDGETOWN.

On the 6th of April a boiler exploded in the saw, stove and heading mill of Watson Bros., at Ridgetown, Ont., which completely wrecked the mill and has thus far resulted in the death of four persons. The accident occurred just as the employees were preparing to enter upon their day's work. The fire had been under the boiler for some time, but the machinery had only been in operation about a minute and a half.

The boiler was a horizontal tubular one, 54 inches diameter and 11 feet 6 inches long, with 58 tubes 3 in. in diameter, and a dome 20 in. diam. and 27 in. high. The plates were iron and were a little over one-quarter inch thick.

and uninjured, with bridge and bolt attached.

The dome was thrown about 600 feet, and the plate to which dome had been attached went about 700 feet in a different direction. The position of the front part of shell and of the back part confirm the theory that the boiler gave way first at the upper part, as these pieces were thrown in opposite directions and appear to have been turned end for end in their flight.

A second boiler which had no steam on at the time was thrown bodily over the engine and badly ruptured.

The violence of the explosion is clear proof that there was plenty of water in the boiler at the time, and the back head showed no sign of ever

traced out to the maker, or seller, or user of the boiler, and the blame fixed upon the right person.

The coroner's jury, in their verdict, stated that the cause of the explosion is unknown, but recommended that the government make it compulsory to users of steam boilers of all kinds to have them periodically inspected by competent boiler inspectors.

GAS LIGHTING FROM SAWDUST.

The town of Deseronto enjoys the distinction of being partially lighted by sawdust. The sawdust is charged in retorts, which are heated by a wood fire, the gas from the retorts passing into a series of coils and thence into the purifiers,



BOILER EXPLOSION AT RIDGETOWN, ONT.

The joints were all single riveted, the lap of plates being 2 in., and the rivets were 5/8 in. diam. and 2 in. pitch. Manhole was 15 in. by 11 1/2 in. and had a strengthening ring around it 1 3/4 in. by 5/8 in. The boiler was in general good order and fairly clean inside.

After explosion there was no evidence that the boiler had been neglected or had been carelessly used. The back head had been renewed at some time and was in very good condition, and evidently was stronger than the front head. The boiler had been used at a pressure of nearly 90 lbs. per sq. inch, and was supposed to be quite safe for a higher pressure. It apparently gave way first at the manhole, or near to it, and was split open from the top across the boiler. The manhole cover was picked up about 60 feet from the original position of the boiler, complete

having been over-heated. The quality of the plates seemed to be common boiler iron, and the most probable cause of the explosion was that the pressure carried was too high for the strength of the shell at the manhole and at base of dome. The severe strain put upon these parts had gradually weakened the boiler, so that it gave way at the ordinary working pressure.

How best to prevent similar accidents is a question well worth considering. In Great Britain where so many boilers are in use, Government inspection has been carefully avoided, but the Boiler Explosions Act requires the user of a steam boiler to report to the Government every accident, no matter how trifling, and an investigation is held and the owner has to prove that he was using all proper precautions. Under this system the fault which led to the accident is

which are similar to those used for coal gas. Lime is the principal purifying agent employed. When it passes out of the retorts the gas possesses an odor much less disagreeable than that of ordinary lighting gas, and resembles somewhat that of the smoke from a fire of green wood or leaves. The works in use are small, turning out daily 540 cubic metres of gas, for the production of which about two tons of sawdust are required. A man and a boy furnish all the labor needed at the works. The gas in an ordinary burner gives an illumination of about 18 c.p. The best quality comes from resinous woods. A quantity of 100 kilogs of sawdust leaves a residue of 20 kilogs of charcoal.

Timber testers say that seasoned timber is twice as strong as green. Long leaved pine is stronger than oak.



MONTHLY AND WEEKLY EDITIONS

C. H. MORTIMER

PUBLISHER

CONFEDERATION LIFE BUILDING, TORONTO

BRANCH OFFICE:

NEW YORK LIFE INSURANCE 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 of allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

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

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

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

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

PREFERENTIAL TRADE.

THE address recently delivered before the Canada Club in London by Mr. Chamberlain, Colonial Secretary, on the subject of preferential trade between Great Britain and her Colonies, has awakened much interest throughout the Empire. The recent difficulty with the United States and Germany appears to have directed the attention of the British government to the necessity of devising means of binding the Empire more closely together; indeed, Mr. Chamberlain, in the address referred to, expressed the opinion that a closer union of Great Britain and her Colonies is "essential for the existence of the Empire as such."

Attention is also called, in the address, to the following resolution adopted at the Intercolonial Conference held at Ottawa in 1894: "That this Conference records its belief in the advantage of a customs arrangement between Great Britain and her Colonies, by which trade within the Empire may be placed upon a more desirable footing than that which is carried on with foreign countries," and also to a resolution moved by Mr. McNeill, in the Dominion Parliament at its present session, which declares that "it is desirable, in the interests of Great Britain and of the Colonies, that a moderate ad valorem duty, independent of any existing duty, should be imposed, both by the Colonies and by the Mother Country, upon all imports from foreign countries."

Having referred to the fact that there exists a united opinion in Canada and Great Britain regarding the necessity for closer union between the various branches of the Empire, Mr. Chamber-

lain proceeds to argue that such a union could be more happily approached from its commercial side. He points out that the consolidation of the German Empire of to-day was brought about by a commercial zollverein, which had the ultimate effect of bringing the various independent states together in political as well as commercial union. As to the possibility of preferential trade between Great Britain and her Colonies, Mr. Chamberlain frankly states that he does not consider that the proposals which have thus far come from the Colonies are sufficiently favorable to induce the mother country to depart from the policy of absolute free trade which she has established and worked upon for so many years.

On this point he says, "I think we may very fairly ask our fellow subjects in the Colonies to better their offer, if, as I believe, they desire to proceed upon these lines, and if those lines do really offer the best direction in which we can proceed," and adds, "I want especially to point out that the advantages of such a proposal are so enormous to the Colonies, as they would undoubtedly lead to the earliest possible development of their great natural resources, would bring to them population, would open to them the enormous market of the United Kingdom for their products—their food, their timber, their sugar. The advantages, I say, are so enormous that it appears to me that the Colonies themselves would be bound to give to any suggestion of this kind, at all events, a careful reconsideration."

It must be admitted by all who have given the subject any consideration that the preferential trade problem is a large and difficult one. Theoretically, it would be a most desirable thing to have an arrangement which would consolidate the British Empire, but when the many divergent interests involved are considered, the possibility of arriving at a satisfactory arrangement is open to question. Anything short of a heavy duty by Great Britain in favor of her Colonies would be of little advantage to them, and just here the question arises, would the British consumer consent to pay such a duty? On the other hand, Canada and Australia have adopted the protective system, the idea in the case of this country being to develop our manufacturing interests. If to get preference in the British markets for our natural products would involve the free admission of British manufactured goods, would our people be willing to sacrifice to a certain extent the interests of our home manufacturers?

Any arrangement which might be made would necessarily be based on the principle of conserving the welfare of the majority of the industries of the different countries concerned. It would not be possible to take into consideration the particular circumstances in connection with any one industry, and we can readily conceive that an arrangement under which advantage would accrue to the majority of the industries of Canada might work very serious disadvantage to some one particular industry. What for example would be the probable effect upon the lumber industry of Canada? If Great Britain were to discriminate in favor of Canadian lumber and against the United States, might we not reasonably expect that the United States would retaliate upon Canada by again imposing a heavy import duty on our lumber? While we would no doubt find in Great Britain a market for much of our lumber of the better class, it is extremely doubtful if we

could dispose of our low grade lumber, which now goes to the United States. As, owing to the disappearance of choice timber, we are every year manufacturing a larger quantity of low grade lumber, the question of finding a market for the same is becoming a more and more important one. Even supposing that the United States should not reimpose a duty upon our lumber, the partial closing of the British market to lumber from the United States would result in increased competition in the American home market and lessen the possibility of finding a market there for Canadian lumber.

These are points which present themselves on a first consideration of this question. It is of course yet too early to be able to consider the subject in its various phases. A conference of delegates representing the various parts of the Empire is to be held shortly to consider the question. After the deliberations of this Conference shall have been published, we should find ourselves in a better position to discuss the matter intelligently.

BUILDING TIMBER.

THE gradual disappearance of good building timber from Ontario, and the substitution of hemlock, soft elm and basswood for white pine and the better class of woods, is the cause of much wrong-doing in the building trades, and the creation of a class of buildings whose lives will be short by comparison. The high price of white or red pine joists is made an excuse by country builders to substitute hemlock instead, where the use of such uncertain lumber should be carefully eschewed. Fancy hemlock joists in the lower floor of a country farm house, where perhaps only a few inches of space exists between the damp earth and the lower edge of the joists. What is the result? A rotten floor in a few years, and a miasmatic one from the moment it is laid. Where it can be avoided, hemlock should never be employed in a situation subject to alternations of dryness and dampness. It does very well if kept constantly dry, though it has the quality of becoming very brittle if made very dry, and is not by any means a reliable wood, if subject to sudden strains. Hemlock may be used with profit in the upper floors of small or medium-sized buildings, that are not likely to be subject to heavy work, and when once in place and properly secured, does satisfactory service. For inside studding, scantlings and light roofing timbers, it will do fairly good service if skilfully arranged and properly secured. It must not be supposed that we decry hemlock as a building material. We do not. Like everything else it has its uses, and it is its improper use we object to. For rough boarding, sheeting and roof covering hemlock has no equal. It is superior to pine in nail-holding qualities, and when dry and properly machined makes a firm and solid base to "side" or shingle over, and each nail may be driven home with a certainty that it will stay where put. When covered, as under shingles, hemlock is not so likely to "swell" or "warp" in a damp atmosphere, as pine would under like circumstances. Hemlock timber, though frequently used in heavy constructions, is rarely satisfactory, owing to the unequal direction of the grain, and the difficulty of working it to correct and proper shape. While it may do passably well for temporary

structures, such as bridge centres, platforms, scaffolding, etc., it should never be employed for outside purposes where permanency is an important factor.

EDITORIAL NOTES.

HAULING logs by rail is becoming more popular in the northern and eastern districts of the United States, while in some parts of Canada the method has also been adopted with success. During the past winter unfavorable conditions existed for logging in many sections of Canada and the United States, and were such seasons to be frequent, we predict a more general adoption of railways for the purpose of facilitating the movement of logs.

IN response to a question asked in the Dominion parliament regarding the recent proposal to impose an export duty on pulp wood, it was stated that it was not the intention of the Government to impose such a duty. The Governor-General-in-Council is authorized to impose a duty by order-in-council, provided the case came under the provisions of section 13 of the Customs' Tariff Act. If it did not, the advice of Parliament would be asked before anything was done.

THE necessity of standard rules of inspection of hardwood lumber is becoming more generally recognized in the United States, and hopes are now entertained of the adoption, at least by the principal eastern markets, of a code of rules which will to some extent remove the difficulties which shippers of lumber have hitherto experienced in this connection. The opposition to uniform rules which existed a short time ago has in a measure disappeared, and the trade as a whole take more kindly to the idea. Canadian lumbermen will welcome the advent of this much needed reform.

THE Canadian Gazette, published in London, Eng., in speaking of Canada's resources in pulp wood, points out that Canadian mills should carry the pulp wood business a step further, namely, to the manufacture of paper. The United Kingdom imported last year unprinted paper to the value of £2,046,106, and strawboards, millboards, and wood-pulp boards to the value of £548,254. The exports of paper from the United States last year were of the value of about £500,000 sterling. Canada, with her forest resources and unlimited water-power, should certainly secure a large portion of this business. At present Great Britain looks chiefly to Germany, Holland, Sweden and Belgium for her imported supply of paper.

It is to be regretted that the peculiarities of the lumber business enable so many tricksters to enter into competition with honorable men. The lumbermen who can justly be said to represent the trade are gentlemen of honor, whose business transactions are carried on in a straight-forward manner. But, unfortunately, from time to time we hear of transactions on the part of certain parties in connection with the lumber business which bear on their face the mark of dishonesty. Our attention was recently directed to the fact that an American buyer was purchasing lumber in Canada at the same figure at which he was selling the same lumber at Oswego, N. Y. The

same person is also said to have purchased lumber in Buffalo at a figure in the vicinity of \$14 per thousand feet, and agreed to supply it to an Oswego firm at \$10.75. We leave our readers to judge for themselves how he intended to "finance" the scheme.

THE present would seem to be an opportune time for Canadian lumbermen to take steps towards the further development of trade with Cuba. The Governor-General of Canada has recently received a communication from the British consul at St. Jago de Cuba, enclosing a number of resolutions passed by business men at several commercial centres, condemning the stand taken by the United States in relation to Cuban affairs, and pledging themselves to purchase no more goods from that country. A considerable trade has already been secured in that country by some of our eastern lumbermen, and this opportunity should not be allowed to pass without a further effort being made in this direction.

AN industry which promises considerable development is the manufacture of butter tubs. For this purpose spruce is largely used, owing to the fact that it does not communicate the taste of the wood to the contents of the vessel. An effort is being made by Washington Territory spruce manufacturers to secure a portion of this trade in the Eastern States. Canadian lumbermen should also make an effort to secure a share of this business. As has already been pointed out, the supply of spruce in the Eastern States is very meagre. Manufacturers on this side of the line would be obliged to pay a duty of twenty-five per cent. on butter tubs or shooks shipped into the United States, but this amount would seem to be below the cost of freight from the western spruce-producing territory. The demand in Canada for tubs and boxes for butter packing is also increasing. Efforts are being made to establish a dairy trade with China and Japan, while Great Britain takes considerable of our butter. In the latter country objections are being raised to the old-fashioned tub, the 56-lb. boxes being considered the preferable form for shipment.

FROM time to time we receive from subscribers to THE CANADA LUMBERMAN expressions of appreciation of the journal, such as those which we print in this issue. These are very gratifying and encouraging to the publisher, as is also the fact that the number of subscriptions discontinued each year bears an exceedingly small relation to the total list of subscribers, and is far more than replaced by new subscribers. The large number of persons who have been continuous subscribers for five, ten, twelve and fifteen years is also satisfactory evidence of the appreciation with which the journal is regarded as the exponent of the lumbering and wood-working interests. There is one other method by which our subscribers may show appreciation of our efforts, and assist the prosperity of the journal, that is, by consulting regularly its advertisement pages, and mentioning THE LUMBERMAN in their correspondence with manufacturers of machinery and other appliances. When something in this line is required which subscribers do not find advertised, they will oblige by dropping us a post card, stating the fact, when we will put them in the way of getting what they need.

A LEGAL DECISION.

SALTER v. ST. LAWRENCE LUMBER CO. Defendants were a foreign company and had offices in London, Quebec and New Brunswick, but no office or agent within the province, and did no business within the province of a regular or permanent character. Subsequently to an order of the Supreme Court of N.B. winding up the company under provisions of c. 129, R.S.C., and appointing liquidators (none of whom resided within the province), plaintiff attached and levied on certain assets of the company. Thereupon the liquidator moved to set aside the attachment and levy, and obtained an order accordingly. On appeal from that order it was contended (a) that the liquidator not being a party to the suit had no standing in the Court, and was not entitled to attack the proceedings; (b) that the winding-up order was not proved, not having been certified and sealed with the seal of the Court as required by statute; (c) that the liquidator had not shown that he had authority from the Court to intervene in the action; (d) that since the liquidator's title was founded on liquidation he should have proved it distinctly.

Held, that as the functions of the directors ceased at the winding-up, the liquidator was the proper and only person who could intervene to conserve the assets of the company, and for such purpose it was not necessary that he should be a party to the suit;

That the motion to set aside attachment was not an attempt to enforce any order made by the N.B. Court (in which case the provision of sec. 85 regarding the mode of proving such order would have to be complied with), but to protect rights acquired under the winding-up proceedings,

That on such a motion it was not necessary for the liquidator to do more than satisfy the Judge by reasonable proof such proof as is customarily employed on interlocutory applications and motions founded on affidavit that a winding-up order had been granted when made, and that liquidators had been appointed.

Held further, that the summary provisions of O. 47, J. A., did not apply to a foreign company which merely had a few isolated transactions within the province, but conducted no regular or continuous business.

TRADE NOTES.

The gang saws for Peters' mill at Parry Sound, Ont., were supplied by the William Hamilton Manufacturing Co., of Peterboro.

The Small & Fisher Co., of Woodstock, N. B., have made three shipments of shingle machinery to British Columbia recently.

The Pembroke Lumber Co., of Pembroke, Ont., have commenced sawing. Having recently refitted their mill, they are prepared to fill orders on short notice.

The Ottawa Saw Works Co. report a good demand for their saws from different parts of Canada. It is the intention of the company to erect an addition to their factory at the Chaudiere.

P. Payette & Co., of Penetanguishene, Ont., have recently shipped one of their improved double edgers to the A. R. Williams Machinery Co., of Toronto, and also one to the Stevens Lumber Co., of New Brunswick.

T. McAvity & Sons, of St. John, N. B., have supplied Andre Cushing & Co.'s mill with large quantities of leather belting. The longest piece is 120 feet long and 48 inches wide, while two other pieces measure 120 ft. x 18 inches and 68 ft. x 20 inches.

The Puget Sound Lumberman, of Tacoma, Wash., has been purchased by Frank B. Cole, proprietor of the West Coast Lumberman, of the same city. The consolidation of the two journals should enable the publisher to produce a paper of high standard.

THE DAKE ENGINE.

The extremely compact type of engine shown in the accompanying illustrations is unusually interesting on account of the ingenious mechanical principles involved in its design. As a steam engine, aside from questions of design, the manufacturers claim that experience has demonstrated that in reliability, and especially durability, it is not exceeded by any of the types of usual design. On account of its compact form,

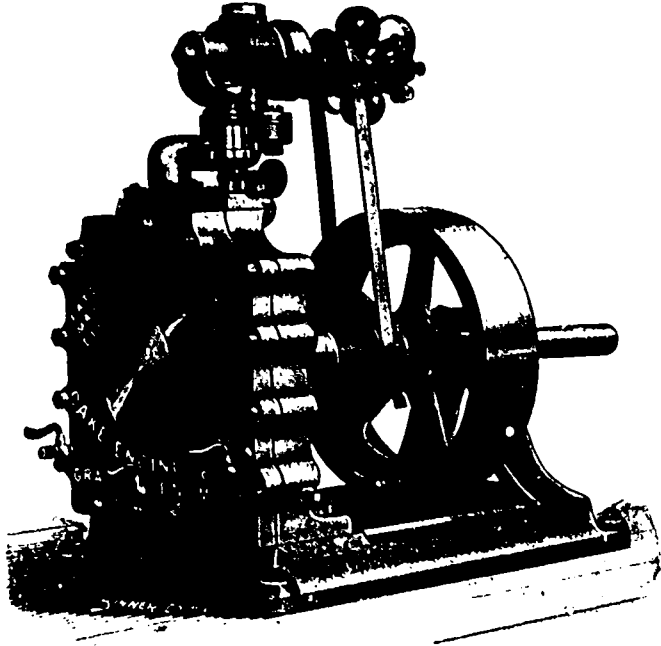


FIG. 1.—DAKE STATIONARY ENGINE.

this engine is claimed to be particularly suited for running ventilating fans, centrifugal pumps, incandescent lighting dynamos and saw mill carriages. Being strongly built, self-contained, and not affected by ordinary jars, it also gives reliable service when used to run smoke-consumers and head-light or other dynamos on railway trains, and when employed for various auxiliary purposes aboard vessels.

Fig. 1 illustrates the engine complete, and in Fig. 2 the pistons are removed, showing the interior of the case with the crank in position, this latter revolving in the chamber shown in the

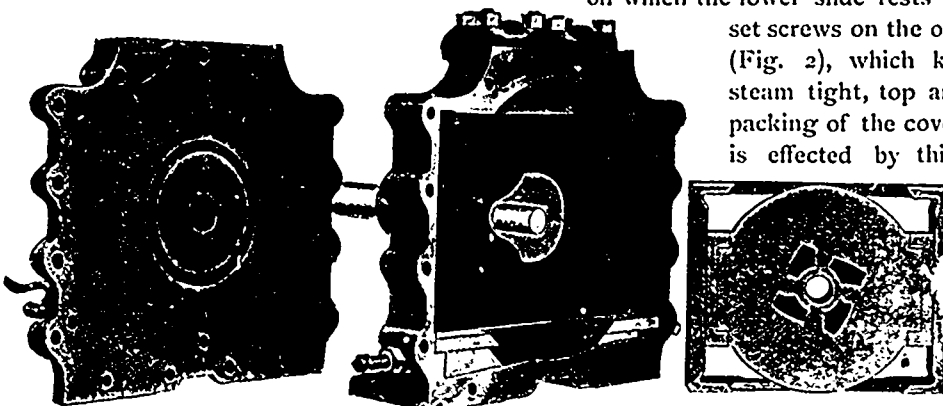


FIG. 2. DAKE ENGINE, SHOWING PISTON WITH CYLINDER COVER REMOVED.

back of the case in the central cut. This chamber is supplied with oil and water from an opening in its back, thus securing lubrication to every part of the interior of the engine.

Both side pistons have a horizontal movement sliding from side to side, and at the same time an inner piston to which the crank pin is attached has a vertical or up and down motion, the two movements imparting rotary motion to the crank. Steam is admitted through channels in the cover, one opening into a central aperture and another into an annular opening on the

inside of the cover. Four channels are cored through the inner piston, one leading to the top and another to the bottom, and one to each end of the inner piston, the latter also leading through the ends of the outer piston. Four parts corresponding with the channels in the interior of the inner piston are cut through the face (or side next to the cover) of the inner piston in the proper position to register over the central aperture in the cover. The steam entering the port in the inner piston, through the central aperture of cover and re-acting against the side of the case, imparts motion to the crank, the port passing over the annular ring and exhausting into it after having done its work. There are four distinct impulses of steam to each revolution of the crank, and the arrangement of the ports to the crank are such that each impulse of steam is given at a point where it has the greatest power. The expansion of steam is secured in the passage of the ports of the inner piston over the central aperture in the cover.

With the reversing engine, the channelling on the cover and in the piston is the same as in the engine built to run one way, but the ports in the inner piston are shaped so that they register over both the central and the annular openings, using each alternately as steam and exhaust. The ports on the top of the case being fitted with a suitable valve which connects the channels leading to the working parts of the engine, motion is given to the engine either to the right or left, as desired. The reversing engine is the same as a stationary engine, only with reversing throttle instead of governor.

Provision is made for taking up the wear of the working parts of the engine in a simple and effective manner. The inner piston is fitted with phosphor-bronze slides that admit of a thin piece of tin or sheet iron being inserted when the wear is sufficient to allow it. A wedge-shaped plate on which the lower slide rests is arranged with

set screws on the outside of the case (Fig. 2), which keeps the piston steam tight, top and bottom. The packing of the cover to the pistons is effected by thin copper joints placed between the edge of the case and cover. The pistons are made so that they are slightly thicker than the case they occupy, and

enough copper strips are put in to fill up the space; these joints are removed one at a time as the pistons wear down, and where it is seen that repacking is needed and a copper joint is too much to take off at one time, a piece of thin paper to take its place will repack the cover perfectly. The repacking of the cover as above described, and replacing the nuts or cap screws (as found on the different sizes of engines) evenly, is the only point about the engine that requires careful attention and judgment on the part of the person in charge, and

repacking is not required except at long intervals.

There is very little friction, and consequently slight wear on the pistons, from the fact that the steam pressure is inside of the inner piston, instead of against it, making the pistons similar to balanced valves. The bearings for the main shaft and crank pin are in the form of bushings and made from phosphor-bronze. From the manner in which steam is applied to the pistons the wear is slight compared with the ordinary engine. When they need renewing the worn ones are driven out and the new bushings driven to place, which can be done by any good machinist at a small cost to the purchaser. The crank

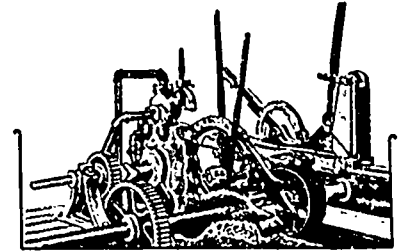


FIG. 3.—CARRIAGE ENGINE.

and pin are made from the best quality of cast steel, and the shaft, which is machinery steel, is shrunk into the crank in a solid manner. The outer piston is also made from best quality of cast steel. Every part of the interior of the engine is fitted with the greatest care. The inner face of the cover and all of the working parts of the engine are ground surfaces, made with tools especially designed for the manufacture of this type of engine, thus ensuring that the engine is practically steam tight from the start. Everything about the inside of the engine is made interchangeable, and can be duplicated in case of accident on short notice.

Fig. 3 shows the carriage engine for setting up and receding head blocks.

In Fig. 4 is shown the steam feed, which is recommended to the consideration of saw mill

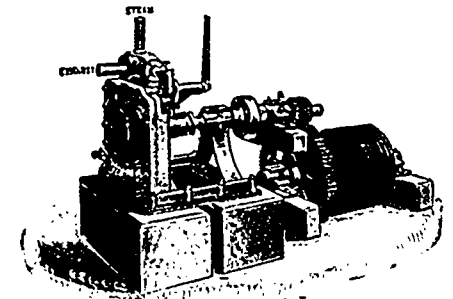
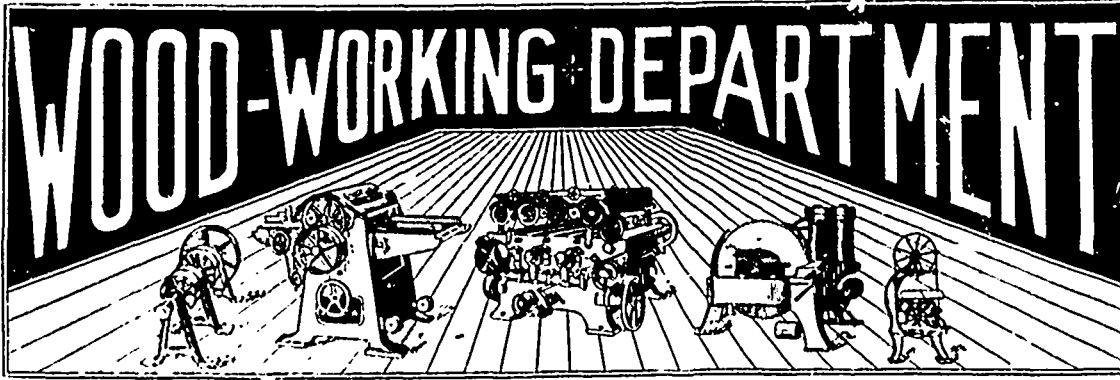


FIG. 4.—STEAM FEED.

owners and operators. The claims made for it are simplicity of construction, positive operation and easy management, economical use of steam, small space occupied, cheapness, and easy adaptation to either new mills or those now in use. In placing the engine in position, it is not necessary to move the husk frame, as it can be lowered from above through the frame onto foundation. The movements of the engine in either direction is under absolute control of the sawyer by lever connecting with reverse valves on top of engine, thus accommodating the speed of the feed to the size and conditions of logs.

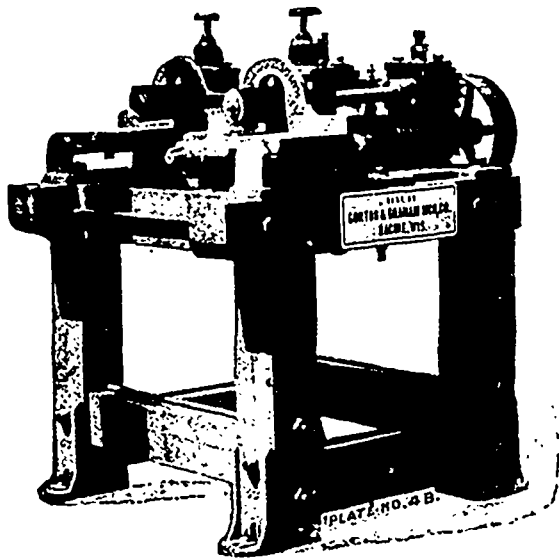
The Dake engine has been placed upon the Canadian market by the Phelps Machine Co., of Eastman, Que., who will gladly furnish any further information.



GANG HOOP SAWING MACHINE.

The accompanying machine is adapted for sawing hoops from 3-32 to 1/2 inch or thicker, 3/4 to 1 1/2 inches wide, any length. Collars are furnished for any dimension hoop required. The machine is also adapted to cutting rule stock and similar work in large quantities. It cuts hard or soft timber, the output being almost as smooth as if planed, which for basket hoops and similar work is preferable to planed stock.

The feed rolls are adjustable for different thicknesses of stock. The arbor is fitted to run four



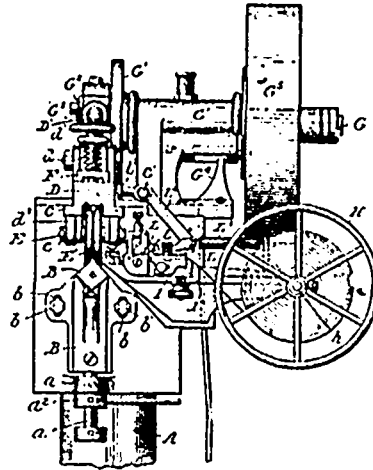
HOOP SAWING MACHINE.

to eight saws nine inches diameter. The bearings are fitted with sight-feed lubricators to exclude dust and dirt. The saws can be changed in less than a minute to vary the thickness of hoops. The engraving herewith shows a wood frame, but this machine is also built with a one-piece-casting frame. It will saw boards 15 1/2 inches long. It is also made to carry a greater or less number of saws, as desired.

SOME of the most beautiful articles ever made of American woods are piano-cases, side-boards and furniture, in which oak, maple, cherry and other woods are used in their natural state. It is supposed that the only way to show up the markings in wood is to apply stains and fillers, and the enormity of error in this supposition will be appreciated by any person who will make a close scrutiny of articles made of unstained and unfilled woods. In the case of oak the fillers simply disfigure the wood, making obtrusive lines and shades that really mar the native beauty of that noble wood. In all cases both stains and fillers are inartistic, because wholly unnatural. It is incorrect taste that prefers the vulgarly emphasized filler markings in wood. The poetical rule should prevail in wood finish, that is, the finisher should remember that "beauty least adorned is beauty most adorned."

RECENT WOOD-WORKING PATENTS.

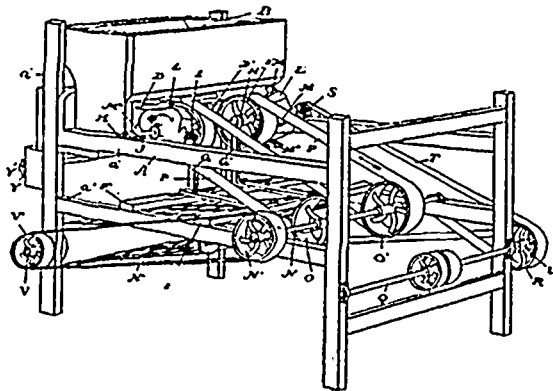
CANADIAN patents for wood-working machinery have recently been granted as follows:—



MACHINE FOR APPLYING ADHESIVE STRIPS TO BOXES AND OTHER ARTICLES.

Patentee: H. Inman and H. A. Inman, both of Amsterdam, N. Y., patented 4th February, 1896; 6 years.

Claim.—In a machine for applying adhesive strips to boxes and other articles, the combination of a support for the box or other article, a head to reciprocate in a direction substantially parallel with the surface of the box or other article, and a roller carried by said head and having its working face conformed to the surface of the box or other article to be operated upon, and arranged to lay the adhesive strip upon said box, and to roll over the same. In a machine as above described, with feeding and cutting mechanism for above said strip, with spring clamp disposed above said strip, and a finger carried by said head and arranged to co-operate with each spring clamp to press the same and hold said strip.

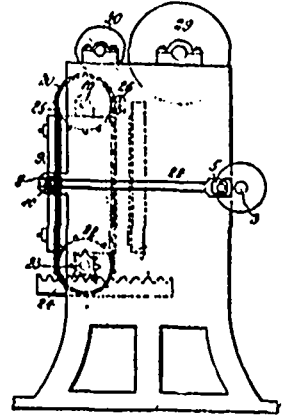


MACHINE FOR POINTING SKEWERS.

Patentee: Thos. W. Hamlin, Sarawak, Ont., patented 21st February, 1896; 6 years.

Claim.—In a skewer pointing machine, the combination of the hopper, the skewer supporting tables, a shaft opposed to the said tables journaled in the frame, a pillow block opposed to the interval between the tables, sleeves supported by the pillow blocks encircling the shaft, idlers mounted on the sleeves opposed to the tables, cutter heads mounted on the said shaft on the outer sides of the idlers, a second shaft, pulleys mounted on the second shaft, belts passing around the pulleys and idlers to carry the skewer blanks down the faces of the tables, and means for imparting motion to the machine. In a skewer pointing machine, the combination with the hopper of a feeding apparatus consisting of two slides, one located above the other, a shaft journaled in the frame, cams mounted on the shaft, rock shafts operated by the cams, arranged to work the slides

alternately, to allow of the delivery only of one skewer blank at a time from the hopper, skewer supporting tables a concaved face for each of the tables, a horizontal shaft opposed to the tables journaled in the frame, pillow blocks opposed to the interval between the tables, sleeves supported by the pillow blocks encircling the shaft, substantially as specified.



MATCH MACHINE.

Patentee: Davenant Rodger, New York, U. S., patented 25th February, 1896; 6 years.

Claim.—In a splint cutting machine, the combination with a gang of cutting knives, of means for imprinting or stamping characters upon the splints, in which is comprised a bed over which veneer is intermittently fed, a gang of cutting knives, a holding and clearing plate bearing characters to be imprinted, and means for inking the characters. A splint cutting machine in which is comprised a gang of cutting knives, and a cutting bed, in combination with rollers adapted to feed the material to be cut, a spring actuated clearer, and means for imprinting characters upon the splints.

STAINING WOOD BLACK.

A PROCESS that is much employed for the above purpose consists in painting the wood consecutively with copper sulphate solution (one per cent.) and alcoholic aniline acetate (equal parts of alcohol and acetate). A very durable black and the nearest approach to red ebony is readily obtained by moistening the surface of the wood with dilute sulphuric acid (1:20), and subsequently applying heat. A temperature of 60-90 C. suffices in a very few minutes to produce the desired result. An excellent black was obtained in this way on beech, bass and boxwood; while a second treatment with acid was necessary in the case of cherry, walnut and birch. With oak and ash the results were not so good; and apple, and different varieties of pine, were still less amenable to the process, pine especially being unevenly stained. In order to afterward remove the acid from the wood, it might be well to thoroughly wash the latter with dilute soda solution, followed by clean water. It is unlikely that this method can be applied to any but small articles, because of the risk of possible fractures during the necessary heating of the wood.

A SOLUTION of fifty parts of commercial alizarin in one thousand parts of water, to which a solution of ammonia has been added drop by drop until a perceptible ammonia odor is developed, will give to fir and oak a yellow brown color, and to maple a red brown. If the wood is then treated with a one per cent. aqueous barium chloride solution, the first-named become brown and the latter a dark brown. If calcium chloride be used instead of barium chloride, the fir becomes brown, the oak red brown, and the maple a dark brown. If a two per cent. aqueous solution of magnesium sulphate be used, the fir and oak become dark brown and the maple a dark violet brown.



A GENTLEMAN who is quite familiar with the European market, in speaking of the present agitation for a further development of the Ontario hardwood trade in Europe, remarked to me that every precaution should be taken lest the expenses of shipping, insurance, storage, etc., should leave nothing for the shipper. The surest way was to endeavor to effect a sale before sending the cargo forward, as should it be necessary to store the lumber after its arrival until such a time as it could be disposed of, the charges would probably eat up all the profit. "Canadian mill men," he said, "must also take more pains in cutting their stock in order to supply the European market, for in this respect I believe they are somewhat lacking. The Americans are more particular than the Canadians, while in England the mill man is still more particular. There the lumber is put to many varied uses, and it therefore becomes necessary to use great care in cutting it for that market."

* * *

HON. T. NOSSE, Japanese Consul at Vancouver, B. C., recently made a trip through the eastern provinces of the Dominion with the object of introducing Japan to Canada, and vice versa. It was my privilege to meet Mr. Nosse while in Toronto. He informed me that Canada had been largely misrepresented in Japan, and was looked upon by many as being part of the United States. "I frequently get letters," he remarked, "addressed 'Vancouver, B. C., U. S.' This misapprehension has been brought about by the fact that the present Canadian trade with Japan has been done largely through United States houses. I once had occasion to order from the United States a superior quality of wheaten flour for the use of the army, and when it arrived the bag was labelled 'Ogilvie's.' Upon asking the supplier where this flour was produced, I was told in Chicago. Canada, with her railways, steamships, banks, and other facilities, should not be dependent upon other countries to handle her trade." With respect to the lumber industry, Mr. Nosse remarked that Japan had immense forests, the only lumber which was exported from Canada to Japan being sleepers and deck planking, which, of course, was supplied by British Columbia. A greater trade might, he thought, be built up with China, in which country there were no forests. At present Japan is exporting cedar and pine to China.

* * *

It's sad to see a man who in the prime of life enjoyed a liberal share of this world's goods, stricken with misfortune and compelled to spend in poverty his declining years. And did you ever notice how many men are brought to this condition through endeavoring to assist their sons? I had a conversation recently with such a man, who had been for many years connected with the lumber business. He had owned a mill in one of the northern countries, and had acquired a competency. The supply of timber in his locality

became scarce, and he began to look round for a new location in order that there might be a business for his boys to step into when he should feel disposed to discard the activities of business life. In Muskoka he found what appeared to be a desirable location, and there he invested between twenty and thirty thousand dollars in a new mill, equipped with the most modern appliances. Before any returns had been obtained from the investment, the property was completely destroyed by fire. The insurance did not cover over half the loss. Father and sons set bravely to work and rebuilt the mill, but their capital was exhausted in the effort, and they lacked the means to successfully carry on the business. They also discovered that the cost of delivering the logs at the mill was much greater in Muskoka than at their former location, and that their profits were proportionately less. Difficulties of one kind and another pressed in upon them, until at last they were obliged to yield up the property to their creditors, and sacrifice every dollar of their means. There is a lesson here for fathers as well as for sons. The former should not risk the fruits of their life work for their children, nor should the latter be willing to accept the sacrifice if offered. Let the young men be equipped with a good business education and be given a few hundred dollars if the money can be spared to them. Beyond this they will be none the worse for being thrown upon their own resources.

* * *

GREATER transformations take place as the years pass by than the unobservant would imagine. Existing conditions to-day are quite different from those of a very few years ago. Of course, you say we are progressing rapidly, and these changed conditions are evidences of advancement. That this is only one view of the question was forcibly impressed on my mind while in conversation recently with Mr. Tennant, of Toronto, on the subject of white pine lumber. "We have encountered within the last five years a number of entirely new conditions," said Mr. Tennant. "We Americans are great on machinery, and lumber can now be worked to almost any shape or form. Maple, birch, oak and other hardwoods are now being largely used for finishing purposes, and white pine is suffering in consequence. Then again, for rafters, joists and scantling, hemlock is taking the place of pine, being much cheaper. A saving of \$5 per thousand feet can be effected; thus a builder using thirty thousand feet in a building saves \$150. For barn buildings hemlock is being exclusively used in some sections of Ontario. Of course it gives the carpenter a little more trouble in dressing, but that doesn't count for much. I recently paid a visit to a number of smart little towns in Western Ontario, and what did I find? Why, asphalt pavements, to the exclusion of wood. These facts show some of the difficulties under which the white pine trade is laboring, and for my part I am inclined to the belief that we will experience a further decline in prices. In the winter of 1894 large stocks were manufactured which are still unsold. These must be disposed of this season or in all probability the lumber will be spoiled. I know of a large quantity which was re-piled last summer in order to save it. In my opinion the government made a mistake in placing too many limits on the market.

It was perhaps all right for the government at the time, but the ultimate result will be detrimental." I quite agree with Mr. Tennant that the developments of the past few years have been rather unfavorable to white pine, but we must accept the changed conditions with good grace, and hope for other changes in the future which will restore to white pine its old-time prestige.

* * *

MR. JOHN DONOGH, of the lumber firm of Donogh & Oliver, Toronto, who has recently returned from a trip to New York, Buffalo and other important cities of the neighboring republic, feels quite confident of a change in the United States government. "The Democrats concede," he says, "that the Republicans will win the day, and that the best they can do is to make a strong fight. It seems to me improbable that any change will be made in the lumber tariff. The strongest advocates for the re-imposition of the duty are the Southern lumbermen, while the Eastern people will use every effort against any change from the present." Mr. Donogh informs me that trade in the Eastern States is improving a little, and he managed to secure a few orders.

* * *

A RECENT visitor to Toronto was Mr. D. C. Smalley, of the firm of Smalleys & Woodworth, Bay City, Mich. His firm operate a large saw mill at that place, and are also the possessors of a Canadian timber limit. In conversation with Mr. Smalley on lumber matters, I learned that they cut largely on special bill stuff, in which they find the most profitable returns. "We have been running night and day for six years," he remarked. "Of course, that is only during the season. In the day time we cut the best logs with a band saw, and at night manipulate the rough logs with a circular. In a run of twenty-four hours we obtain 200 barrels of salt from exhaust steam. Our camp is about fifty miles from the mills, and when we require any logs to fill special bills, we telegraph to the camp and have them cut to the exact length and sent down. We sold our board timber last year to Quebec parties for the English market." I was interested in hearing the opinion of a representative Michigan lumberman on the tariff question and prospects for the season's trade, and questioned Mr. Smalley along this line. "We are expecting a little better year," he said. "I do not think the presidential election will influence business as much as has been the case in many former elections. The Democrats generally concede that a Republican will occupy the chair for the next few years at least. In any case, I do not think the tariff as affecting lumber will be disturbed, unless the Canadian government should impose an export duty on logs. In Michigan good lumber is in demand, but the rougher grades are sluggish. We are sanguine, nevertheless, of an improvement. Men on the road are sending in some orders, and this fine weather is having a wonderful effect on general business. In the north they are curtailing the output of white pine, which it is believed will enable manufacturers to dispose of much of their surplus stock." I asked Mr. Smalley if any quantity of lumber was coming into Michigan from the Pacific coast, and was informed there was very little. Western shingles had been coming in pretty freely, but a prejudice was being aroused against them from the fact that, in order to reduce the cost of shipment, they were dried too much and were liable to check. They were laid down in Michigan at \$3.50.

THE LATE MR. JOHN GOLDIE.

AFTER an illness of lengthy duration the grim hand of death has removed one of the most prominent manufacturers of the Dominion, in the person of Mr. John Goldie, of the Goldie & McCulloch Company, of Galt. His death occurred at his home in that city on the 26th of March. For some weeks his life had been despaired of, but his splendid vitality, notwithstanding his advanced age, enabled him to offer strong resistance to the ravages of disease.

The late Mr. Goldie was a well-known, honorable and highly respected citizen, and to him is due a large portion of the prosperity enjoyed by the town in which he lived. Always having taken an active interest in all matters tending to promote the welfare of the community, his valuable counsel and assistance will be greatly missed. He was a man of sterling qualities, firm, but not obstinate in his convictions, energetic and reliable in all his business dealings. He was a Liberal in politics, but has never sought any public favors. In religion he was a Presbyterian.

Mr. Goldie was a native of Scotland, having been born near the town of Ayr, on the banks of Doon, Ayrshire, in 1822. The subject of our sketch received only a meagre educational training at the school in Kilroy, a small village near his home. When quite young he was apprenticed to learn the millwright's trade. He came to America in 1844 and settled at Greenfield, near Ayr, obtaining employment for over a year with Mr. Geo. Baird, a well known contractor of Blanford township. He afterwards spent eighteen months in Montreal, and was then engaged as millwright by the late Jas. Crombie, of Galt. Subsequently he went into partnership in a saw mill in Esquesing township, remaining in the business several years. In 1859 he returned to Galt, when he and Mr. Hugh McCulloch formed a partnership and bought out the foundry business of Jas. Crombie. At that time twenty-two hands were employed. The business steadily grew, and nearly every year the manufacture of new lines of machinery was commenced. From their factory many skillful mechanics were sent out, who have since given proof of their excellent training. In 1891, the business had grown to such an extent that it was deemed advisable to turn it into a joint stock company, which was done under a Dominion charter, with a capital stock of \$700,000. The original shareholders were John Goldie, Hugh McCulloch, David Goldie, Hugh McCulloch, jr., and R. O. McCulloch. Since then Mr. A. R. Goldie and other members of the two families have been taken in. At the present time the name of the company is known throughout the Dominion as progressive and reliable manufacturers of safes, engines, boilers, mill machinery, etc.

PRESERVING THE FORESTS IN QUEBEC.

TIMBER limit owners in the territory covering twenty thousand square miles, under the supervision of Mr. McGrady, Crown timber agent, in Hull, have reported to the Quebec Government upon the extent and nature of their operations, and their views with regard to what steps should be taken to provide for the preservation of the forest. They have reported individually, but an idea of the general information given has been obtained. In their reports they stated the average size of the timber cut to be 100 feet to the log, or a log twelve feet long and fifteen inches in diameter. It was reported that the average size was decreasing, in consequence of the large trees being gradually cut away. As to the preservation of forests, the limit owners are almost unanimous in the opinion that the means adopted, that is, the employment of forest rangers and fire inspectors, was the only practical one. This was evident from the fact that the district was becoming freer from fires each year. During the past season not one fire was reported.

ONTARIO CROWN TIMBER ACT.

THE following amendments to the Act respecting timber on public lands were passed by the Ontario Legislature at the recent session:

1. The following sub-section is hereby substituted for sub-section 1 of section 11 of the Act respecting Timber on Public Lands:—

(1) All timber cut under licenses shall be liable for the payment of the Crown dues thereon, with interest thereon and expenses, so long as and wheresoever the timber or any part of it, may be found in Ontario, whether in the

original logs or manufactured into deals, boards or other stuff; and when any license holder is in default for, or has evaded the payment of dues to the Crown on any part of his timber or saw logs, such dues, interest and expenses may be levied on any other timber or saw logs, or their manufactured product, belonging to such defaulter, cut under license, together with the dues thereon, and interest and expenses incurred, and all officers or agents entrusted with the collection of such dues, may follow all timber, and seize and detain the same wherever it is found until the dues, interest and expenses are paid or secured.

2. The following sub-section is hereby substituted for sub-section 2 of section 14 of the said Act.

(2) When the timber or saw logs made has or have been removed by any person out of the reach of the officers of the Crown Lands Department, or it is otherwise found impossible to seize the same, such person shall, in addition to the loss of his labour and disbursements, forfeit a sum of \$3 for each tree other than pine and \$10 for each pine tree which he is proved to have cut or caused to be cut and carried away, and in addition the full value of the timber or logs so cut or caused to be cut and carried away.

3. Section 20 of the said Act is repealed and the following substituted therefor:

20.—(1) The alleged owner or claimant of the timber seized may, upon at least four days' notice to the Commissioner of Crown Lands, apply to the judge of the county or district court, or in the Rainy River District to the stipendiary magistrate, for an order for the delivery of the timber to the alleged owner or claimant, and the judge or stipendiary may, on receiving security by bond of the alleged owner or claimant, with two good and sufficient sureties, to be approved by the Commissioner of Crown Lands, or by the agent, in such sum as shall also be approved by the Commissioner of Crown Lands, or by the agent, in such sum as shall also be approved by the Commissioner or agent to pay double the value of the timber in case of condemnation, direct the delivery of such timber to such alleged owner or claimant.

(2) The bond shall be taken in the name of the Commissioner of Crown Lands to Her Majesty's use, and shall be delivered to and be kept by the Commissioner.

(3) The judge or stipendiary magistrate may, upon the application of either party, at a time and place to be fixed by him, of which the other party shall have at least seven days' notice, try and determine such seizure, and whether the same was justifiable or otherwise, and shall either condemn the timber or order it to be released.

(4) If the seized timber is condemned as having been cut in trespass or without authority, the same shall be again delivered up to the Commissioner or to the officer or agent of the Department of Crown Lands, and the Commissioner may again take possession thereof and sell and dispose of the same and apply the proceeds thereof to the use of the Crown, or may allow the claimant or alleged owner to have and take the same, upon the payment of such sum, for the use of the Crown as the Commissioner shall fix and determine. And if the seized timber is condemned for non-payment of the Crown dues, then upon payment to the Commissioner of Crown Lands by the claimant or alleged owner of the unpaid dues with interest thereon and costs and expenses incurred by the Commissioner, the timber may be surrendered to the claimant or alleged owner, and the bond may be cancelled. Otherwise the penalty of the bond shall be enforced and recovered.

4. The following is hereby added to section 22 of the said Act:—

22. Any agreement which may be or which has heretofore been entered into, by her Majesty or by the Commissioner of Crown Lands, with any person for the supply of wood or timber, to be used in the manufacture of pulp or similar material, to be taken from the lands of the Crown, shall not prevent Her Majesty or the Commissioner of Crown Lands from selling, leasing, granting or otherwise disposing of any of the wood or timber of the Crown not specifically sold to or allotted to such person, or from issuing licenses or permits to other persons to cut and take any wood or timber not specifically sold or allotted as aforesaid, or from selling, leasing, granting or otherwise disposing of any of the lands of the Crown, whether such lands are included in such allotments or agreements or licenses issued in pursuance of them or

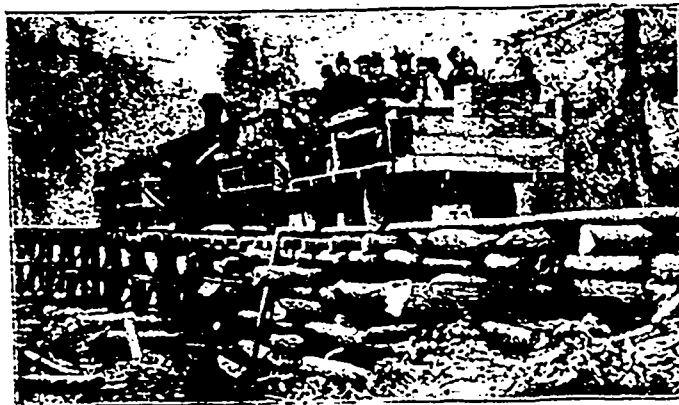
not, and other agreements may be made with any other persons to cut and take wood or timber from the lands of the Crown for making pulp or for similar or other purposes, without rendering Her Majesty or the said Commissioner of Crown Lands liable in damages in case of the exhaustion of the supply of such wood or timber, or of the inability of any person with whom a prior agreement was made to obtain a sufficient supply thereof during the whole period for which the agreement is to run, or during which the supply of wood or timber is contemplated by any such agreement, unless in respect of any quantity specifically sold to or actually allotted, or the wood and timber upon specified lands actually allotted, or agreed to be allotted to or for such person, and no claim or demand against Her Majesty or said Commissioner shall be made or maintained through or by reason of such sale or other disposition as aforesaid. No such agreement as aforesaid shall extend or run beyond the period of twenty-one years from its date.

5. The Lieutenant-Governor may by special commission appoint any duly appointed Crown timber agent or wood or fire ranger, a justice of the peace for a temporary or limited period, for the purpose of taking cognizance of offences under the Act to preserve the forests from destruction by fire; and such person so appointed by commission shall, during the time named therein, have all the powers, rights and privileges for the purpose of enforcing the said Act, or of inflicting fines, penalties or imprisonment thereunder and otherwise of a justice of the peace, and such person so appointed as aforesaid may, by writing, under his hand, appoint any person a constable for a temporary or limited period, for the purpose of the said Act, and he shall have all the powers, rights and privileges for the purposes aforesaid of a constable under the Act respecting constables.

A LOGGING RAILWAY.

THE use of railways in connection with logging operations is somewhat limited, partly owing to the large cost of construction. One of the cheapest roadbeds is that of the pole road, which has been adopted in many logging regions. The accompanying illustration shows the trial trip on a road in Nova Scotia.

Construction costs from \$75 to \$250 per mile. No cross ties are required, there being no lateral pressure. The poles are about 9 inches in diameter at the smaller end. A socket in the larger end permits the smaller end of another pole to



INITIAL TRIP OF POLE ROAD IN NOVA SCOTIA.

rest in it. Curves are constructed of short poles, the joints being opposite. The cars and locomotives are supplied with wide-tread grooved wheels. Where there is a grade it is customary to place the locomotive in the middle of the train, so it can leave half its train of six cars, if necessary, and push the other three to the summit, returning for the remaining three.

Bangor, Boston and St. John capitalists have subscribed a large sum of money for building a steam band saw mill at Ashland, N. B. The promoters are negotiating for the purchase of timber lands, and propose to build a mill with a capacity of sixty million feet a year. Nearly all the logs heretofore cut on the Aroostook river have been driven to St. John.

OTTAWA LETTER.

[Regular Correspondence CANADA LUMBERMAN.]

THE past winter has been very favorable for operations in the woods in the Ottawa valley, and the log output has been of an average size. Preparations are being made for river driving, and the mills are resuming operations. In none of the mills have any important improvements been made this spring. The wages of mill men will be about the same as last year, and the shorter hour system will again be followed, the proprietors realizing that they lose very little thereby.

The extensive timber limits of Bryson & Fraser on the Coulouge will be offered for sale by public competition in June next. The limits are valued at upwards of \$300,000, and are being sold to liquidate the estate of the late John Bryson, and in order that Mr. Alex. Fraser may realize on his share of the lands. Mr. Fraser owns a half interest, and is also a creditor of the estate for \$120,000. The sale will, no doubt, attract considerable attention.

The experiment by Mr. J. R. Booth of sawing in winter has proved successful, and will, in all probability, be carried on next winter. A number of special cars will be constructed for freighting the logs to better advantage. Mr. Booth states definitely that he has no intention of accepting the Conservative nomination for the city for the Dominion House.

INDIFFERENT LENGTHS.

The sawdust of mills is being utilized by the E. B. Eddy Co. for fuel at their sulphate mill.

MR. George H. Perley, late of Perley & Pattee, is getting out a small raft of waney timber on the Rouge river.

Gilmour & Hughson will not run their mill at Chelsea, Que., this season, but will do all cutting at their mill on the Ottawa river. It may be the middle of May before opening, as they have so few logs down.

All booms and bridges on the Bonnechere river have been swept away by the floods, and in consequence no logs will come down that river this season. The Madawaska river is a raging torrent, such as has not been seen for years.

Messrs. McLachlan Bros., Arnprior, are ready to open as soon as the waters will subside sufficiently to allow them. They have completed their new incinerator, which is 160 feet high and cost \$6,000.

OTTAWA, Ont., April 25, 1896.

NEW BRUNSWICK LETTER.

[Regular Correspondence CANADA LUMBERMAN.]

ST. JOHN RIVER LOG DRIVING COMPANY.

THE annual meeting of the St. John River Log Driving Company was held at Fredericton, N. B., on the 1st of April. Among those present were Messrs. W. H. Murray, W. C. Purvis, Henry Hilyard, C. F. Woodman, J. F. Gregory, St. John; W. H. Camliffe, R. F. Mallet, Fort Kent; J. E. McCollum, D. H. Nixon, G. R. Burt, Hartland; Fred H. Hale, Woodstock; Archie Hale, River du Chute; R. A. Estey, J. A. Morrison, Fredericton; A. J. Beveridge, Andover; Fred. Moore, G. B. Dunn, and others.

Mr. W. H. Murray occupied the chair, and Mr. J. F. Gregory acted as secretary. After routine business had been transacted, Messrs. W. H. Murray, Fred H. Hale, John A. Morrison, R. A. Mallet and D. H. Nixon were chosen directors for the ensuing year.

The manner in which Frederick Moore & Sons carried out their driving contract last season was discussed, and a court of arbitration was appointed to decide the amount of damage the log owners are entitled to receive. It is understood the claims will reach nearly \$135,000, but from this amount will be deducted the value of the logs acquired after having passed the corporation limits.

Steps will be taken to have the river more carefully looked after than heretofore. The log owners this season are to be taxed only for the actual cost of driving. The finances of the company were reported to be in a satisfactory condition.

MILL IMPROVEMENTS.

During the past winter considerable improvements have been made to the mills in the vicinity of St. John, rendered necessary in order to reduce the cost of manufacture and meet competition. The Hilyard mill has been improved to the extent of \$4,000, which includes a modern set of boilers. The sum of \$2,500 has been spent on Charles

Warner's mill. The new Cushing mill will have, when completed, two band saws and a Wickstock gang, the first introduced in St. John. This mill will have a daily capacity of about 1,400,000 feet, and is modern in every detail. George Barnhill has placed a new pattern edger in his mill, and Mr. Murray has added a planer and a nail-peg stove machine. Patent beds and haul-ups have been placed in the Jordan mill, the King mill and the Miller shingle mill. At Stetson, Cutler & Co.'s mill at Indiantown improved furnaces have been built.

BITS OF LUMBER.

George D. Prescott is fitting up his saw mill at West River.

New machinery has been placed in Crockett & Barnhill's mill on the St. John river.

The Kerr mill, between Chatham and Newcastle, will be operated this season by L. Doyle, who will saw Walsh's cut of logs.

Stetson, Cutler & Co., of St. John and Boston, will handle the lumber cut of Donald Fraser & Sons and R. A. Estey, of Fredericton.

The prospects for river driving are considered good, and lumbermen anticipate no difficulty in bringing down the crop of logs which has been taken out.

Electric light is being placed in a number of the provincial mills, among which are those of J. B. Snowball, Chatham, and Ernest Hutchinson, Douglastown.

A movement has been commenced by the Board of Trade to secure the shipment of lumber from Ottawa to South America via St. John. It has been pointed out that the present harbor facilities are inadequate, but steps will be taken at once looking to the extension of the harbor, and it is hoped to secure a portion of this trade at no distant date.

The second annual meeting of the Tobique River Log Driving Co. was held at Andover a couple of weeks ago. The following directors were elected: A. J. Beveridge, R. A. Estey, Archie Fraser, Geo. A. Murchie, Geo. W. Upham. At a meeting of the directors A. J. Beveridge was elected president, and J. C. Hartley secretary-treasurer.

ST. JOHN, N.B., April 24, 1896.

BRITISH COLUMBIA LETTER.

[Regular Correspondence CANADA LUMBERMAN.]

YOUR correspondent learns that the various mills in this province have a good quota of orders in store, and the opinion is expressed that lumbering on the coast is on the eve of a healthy revival. There is a scarcity of flat cars for eastern shipments, and scows are also in demand for transshipping to various points along the river. The Pacific Coast Lumber Co. and the Brunette Saw Mill Co. are making large shipments east, while also supplying no small quantity for the foreign market. The Royal City Mills present a scene of activity, and are shipping largely to the Northwest.

I hear few encouraging remarks with respect to shingles, although it is believed by some that the trade will experience an improvement of the slow but sure character. The price at the present time is so low that little manufacturing is being done.

The Central Lumber Co., which includes all the shipping mills on the coast excepting the Chemainus mill, is making its influence felt, and is recognized as a strong organization. The price of lumber has been advanced by 50 cents per thousand, and it is the purpose to establish a still higher standard when the opportune time arrives.

A select committee appointed by the government to inquire into the working of the provincial log sealing act of 1895, have presented a report, in which it is stated that the system, which has been in force on Vancouver Island for eight months, has given general satisfaction. Among other things it is recommended that a scale be adopted which would give the solid contents of a log, and that some more efficient check be put on the distinction between dutiable and non-dutiable logs. The enforcement of the act is strongly urged, and that in every case where the sealing is done by a government scaler, he be required to give a copy of the scale to both buyer and seller.

COAST CHIPS.

R. D. Mather is operating a saw mill at Fort Steele.

C. K. Simpson proposes erecting a saw mill at Midway.

G. Lovatt, saw mill, Kaslo, is contemplating removing to Ainsworth.

Thirteen vessels are loading lumber at British Columbia ports for foreign shipment.

The Shawingan Lumber Co. has taken over the business at Wellington formerly carried on by D. Nicholson.

Grant & Mounce, saw mills, Union, have put in a band saw with all latest improvements, adapted for both light and heavy work.

An English syndicate which recently purchased yellow cypress timber on the coast some 200 miles from Vancouver, will erect a mill this summer.

The mill of the Victoria Lumber Co. at Chemainus commenced operations about the 1st of April, employing about seventy hands. Shipments of lumber have been made to China and other foreign countries, and the promoters anticipate a fair season's trade.

NEW WESTMINSTER, B. C., April 22, 1896.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

A LARGE number of the mills have resumed operations, and many of them are running day and night. Operations promise to be quite brisk this season, notwithstanding the fact that trade is slow at the present time. The ice in the Saginaw river has moved out, and Lake Huron will now permit of the passage of vessels. The docks are crowded with lumber, and some anxiety exists less difficulty is experienced in clearing them in time for the new output.

The log drive on the Muskegon river is to be handled this year by the Log Owners Boom Company, which was recently chartered for twelve years. There will be about 30,000,000 feet of logs handled, besides quantities of cedar products.

In ten years the Michigan Central Railroad transported 1,721,774,149 feet of logs to saw mills on the Saginaw river and elsewhere. The business has been gradually declining, and a careful estimate for the present year places the amount to be hauled at 100,000,000 feet, which is possibly a large estimate.

SELECTS.

Gilchrist's mill at Alpena is cutting 25,000 feet of maple flooring per day.

Seven saw mills and six shingle mills will be operated at Alpena this summer.

George A. Mitchell, a prominent lumberman of Saginaw who has been engaged in business there since 1865, is dead.

Fletcher & Sons, of Alpena, are considering the erection of a mill to manufacture paper from the wood pulp produced at their mill.

John Canfield, a wealthy lumberman of Muskegon, Mich., has been sued for \$300,000 by E. A. Shores, of Ashland, Wis., for commissions which the latter claims were promised him.

Labor Commissioner Morse will this year make an estimate of the amount of forest timber remaining in Michigan. If properly compiled, the information should be valuable to lumbermen.

The Alpena Lumber and Veneer Co. has been organized at Alpena, and has purchased the Island mill from the Minor Lumber Co. All kinds of lumber will be cut, but hardwood and veneering will be specialties.

Jonathan Boyce, of Bay City, is said to have sufficient timber to keep his mill running for ten or fifteen years yet. He has 200,000,000 feet of standing timber on the line of the Michigan Central road, north of Bay City.

SAGINAW, Mich., April 25, 1896.

A GOOD INVESTMENT.

MR. Richard Lockhart, of Riversdale, Ont., in renewing his subscription to THE CANADA LUMBERMAN, writes: "I would not do without your paper for \$5.00 per year."

ANOTHER GOOD OPINION OF "THE LUMBERMAN."

MR. W. W. Carter, of Fesserton, Ont., in renewing his subscription to this journal, writes: "I am always glad to contribute my subscription to your valuable paper, as you are deserving of the support of all lumbermen for the energy and push you have put into your weekly for the past year, and for keeping the lumbermen so well posted on all matters of interest to them."

THE NEWS.

A new engine will be placed in the saw-mill at Lanark, Ont.

—Ainsworth Bros. have their saw mill at Brechin, Ont., in operation.

A saw-mill will be erected on the Island of Anticosti by Mr. Mernier.

—Charles Miller has placed a new band saw in his mill at Pokiok, N. B.

—Francis Rousseau, Somerset, Que., will rebuild his saw mill burned recently.

—Joseph Genelle, of the Kault saw mill, has opened a lumber yard at Kamloops, B. C.

—Hughes & Co., lumber dealers, Brandon, Man., intend putting in a planing mill outfit.

—Over 3,000 logs were handled in the Jennings saw mill at Fenwick, Ont., the past winter.

—A new steam planing mill is being erected at St. Catharines, Ont., by C. H. Leicester.

—The five mills of the Ontario and Western Lumber Co. will commence sawing early in May.

—The Port Arthur Pulp & Manufacturing Co., Port Arthur, Ont., is applying for incorporation.

—The old Phelps mill at St. Catharines, Ont., is being fitted up by George Wilson as a planing mill.

—The Collins Inlet Lumber Co., of Little Current, Ont., will, it is said, remove their sawmills to Killarney.

—The saw-mill at Westholme, B. C., owned by Frank Lloyd, has resumed operations. Mr. Lloyd is doing a successful business, his lumber meeting with a ready sale.

—McLachlin Bros., of Arnprior, Ont., are having their large refuse burner re-built on a larger and better plan. It will be about 100 feet in circumference and 200 feet high.

—The North American Bent Chair Co., of Owen Sound, Ont., have secured a large stock of hardwood logs.

—The Sault Ste. Marie Tug Company has been incorporated, to carry on a general towing and wrecking business.

—The Rathbun Company have commenced sawing at their mill at Deseronto, Ont. Robert Farrell is foreman of the mill.

—It is reported that the Whitney Lumber Co. will probably erect another mill on the Ottawa, Arnprior and Parry Sound Railway.

—Hogan Bros., of Fort William, Ont., will shortly erect a planing mill, to be fitted up with the latest and most improved machinery.

—Prospects are encouraging for a pulp mill at Richibucto, N. B. If \$40,000 can be secured the work will be proceeded with at once.

—The manufacture of fine mantels for the decoration of fire-places has been commenced at Harrison's saw and planing mills, Owen Sound, Ont.

—Graham, Home & Co., of Fort William, Ont., are preparing for a good season's business. Their mills will run night and day during the summer.

—At Walker's camp, Medora township, a load of saw-logs numbering 150 and measuring over 5,300 feet was drawn half a mile by a span of horses.

—J. O'Donnell, of Bobcaygeon, has taken out 100,000 feet of hemlock for the Rathbun Co., to be used in the construction of the Trent Valley canal.

—The Eyre Manufacturing Co., Lyn, Ont., has closed operations. They manufactured woodenware, but found overproduction in the Canadian market.

—M. Doody, timber merchant, of Cobourg, loaded four carloads of Quebec timber at Kinmount in three hours, only four men and a team of horses being employed.

—Ritchie Bros., of Aylmer, will operate the Cormier saw mill during the coming summer. They have taken out a large number of logs in the township of Eardley.

—Clarke, Skilling & Co. have two mills running near Newcastle, N.B., and James Aiton also has two mills, one at Grand Down and another at Bartibogue, all cutting timber for spools.

—A lumberman named William Payne returned to Peterboro' from the camp with a substantial wad. He got in with some friends and had a good time, but next morning found himself minus \$55.

—Smith Bros., of Fort Lawrence, N. S., have finished sawing for J. E. McAulay at Stewarton, after having cut nearly one million feet. They have one of the best portable mills in the province.

—Crown Timber Agent MacGrady has been informed by the Crown Lands Department, Quebec, that a discount of 33 $\frac{1}{3}$ per cent. will be allowed on all arrears of dues paid before a specified date.

—T. Sheehan, manager for the Moore Lumber Co., is moving his plant to Trout Creek, Ont., and will commence operations on the company's limit in the township of Ballantine, some six miles east of that town.

—The Muskoka Rivers Improvement Co., with a capital of \$8,000, has been granted incorporation to improve navigation on the Muskoka, Ox Tongue, Hollow and Musquosh rivers and their tributaries.

—J. B. Smith & Sons have their new mill at Callender, Ont., in running order. It replaces the one burned last fall, and is fitted with the latest and most improved machinery. It will cut 80,000 feet per day.

—Mr. Chas. B. Williams, late of Ontario St., Toronto, has leased the Fletcher mill property at 552 Yonge street, and is carrying on a planing mill and retail lumber business. A satisfactory trade is being done.

—The Kensington Furniture Co. has been organized at Goderich, Ont., to manufacture furniture. They will erect factory buildings and put in the latest and most improved machinery. Mr. William Hinton is manager.

—A company has been formed in Annapolis, N. S., to engage in the wholesale manufacture of hardwood barrels for apple and fish packing. A site has been selected on Lequille river, and special machinery will be purchased.

—Davey & Son, Irondale, Ont., are rebuilding their saw mill destroyed by fire last fall. The mill proper will be 30 x 70 ft. in size, while the power house and shingle mill machinery will be located in an extension 24 x 70 ft.

—Andrew Miller, Elora road north, near Paisley, Ont., felled a giant elm tree which cut three logs 10 feet in length, and two logs 12 feet in length. These measured 2,582 feet of lumber. There was also cut from the same tree 6 $\frac{1}{2}$ cords of wood.

—The Gilmour Lumber Co. are building their new mill on Canoe Lake, Ont., and it is expected that one band saw will be running by the first of August. The main building will be 180 x 65 ft., and it will have an annual capacity of 50,000,000 feet of lumber.

—The leased limits in British Columbia run 20,000 feet to the acre, and there are 524,573 acres leased. In 1894 the total lumber cut was 67,499,277 feet. The province has an area of 382,300 square miles, and 74 per cent. of this is covered thickly with timber.

—Hon. Mr. Stratton's bill before the Ontario Legislature respecting mill dams was withdrawn, it being decided that the Lieutenant-Governor-in-Council may instead issue an order-in-Council whenever it is thought necessary to alter the width of mill-dams.

—The export of pulp wood is growing to be an important industry in Nova Scotia. The Morgan Falls Pulp Co., of Queens County, have shipped during the past four months ten vessel loads of pulp to the American market, aggregating 1497 tons.

Mr. Wm. Margach, Ontario crown timber agent, returned recently from a tour of inspection on the Racing river. He reports that lumbering is being successfully prosecuted, and some fine white pine and a large number of railway ties are being taken out.

—The vessels of the Collins' Bay Rafting and Forwarding Company will all be engaged in the timber business until the end of August, principally from Lake Superior and Georgian Bay ports to Collins' Bay, from whence they raft the timber and forward to Quebec.

—Munro & Gordon, of Sudbury, finished hauling their winter's cut of logs some time ago. Over eleven million feet have been taken out. The work was done under the supervision of John Fitzhenry, of Pembroke, and is considered the biggest winter's work ever done in one shanty on the Spanish River.

—The municipal council of Sturgeon Falls, Ont., has agreed to bonus the Sturgeon Falls Pulp Co. to the extent of \$7,000, providing the company erect and equip a mill costing about \$29,000 and employing from 30 to 40 hands. The Ontario government have granted the company a permit to cut spruce on the Sturgeon river and its tributaries. Mr. Heath, of Huntsville, is interested.

—Thomas Crockett, of River du Loup, Thos. Clair, of Clair, Madawaska; Edward Desbarats Boswell, of River du Loup, Geo. Edward Barnhill, of St. John, and Thos. Malcolm, of Edmundston, have been incorporated as the Kenny Island Mill Co., Ltd., to manufacture lumber. The capital stock of the company will be \$5,000.

—The Ontario Legislature has approved of an agreement between the crown and George Clovet and James Whalen, of Port Arthur, and Thomas Bray, of Wolsley, pulp wood manufacturers, giving the latter certain timber limit privileges on the shore of Lake Superior, the privileges to extend over twenty-one years, on condition they employ 100 men for the first three years and 200 men thereafter.

—A Shubenacadie, N. S., correspondent complains of unsatisfactory freight rates charged on car loads of lumber going to Halifax. Charges varying from \$8 to \$15 per car are made, with the same amount of lumber on each car. Not long since a car load of pine was shipped, and when it reached Halifax it is said to have been charged as hardwood. These conditions, it is claimed, result from the employment of incompetent persons.

—At Bishop's camp, near Sudbury, Ont., there was an exhibition of heavy loads of logs. The competitors, with the amounts of their loads, were as follows: Philip Heral, Newmarket, 49 logs, measuring 14,012 feet; Wm. Jones, Little Current, 38 logs, 14,024 feet; P. McDonald, Beaverton, 47 logs, 14,052 feet; Charles Clarke, Penetanguishene, 47 logs, 14,048 feet; C. Reardon, Barrie, 82 logs, 14,091 feet; P. Wynhe, Penetanguishene, 52 logs, 14,038 feet; Edward Anderson, Midland, 58 logs, 14,068 feet.

Kelly Bros., River Hebert, N. S., inform us that in cutting down trees they have dispensed with the axe entirely and use only the saw. By means of this, from a foot to twenty inches of the finest part of the log is saved, and in the mill there is considerable time saved, as the saw begins work at once instead of having to cut through the useless scarf first. As for time, a tree can be cut down with a saw as quickly as with an axe, and by less expensive hands. It is calculated that by using a saw a hundred thousand feet of lumber is saved in every million, and that with their cut this winter of three million they will save three hundred thousand feet.

CASUALTIES.

—At John McMillan's saw mill at Blyth, Ont., the son of the proprietor had his arm torn from wrist to elbow by coming in contact with the saw.

—While cutting timber near East Selkirk, Man., Jonas Oddson was seriously injured by the falling of a tree. Both jaws were broken and the face terribly lacerated.

—Robert McDonald, employed as foreman over a lifting gang at Graham, Home & Co.'s camp near Fort William, Ont., was killed recently by a log rolling upon him. He was 40 years of age.

—A young man in James Tierney's logging camp, about thirty miles from Fort Francis, Ont., was struck on the forehead by a limb of a tree. The blow caused concussion of the brain and resulted in his death.

—George Vogt, late of Hanover, Ont., purchased a saw mill last fall on the Bruce peninsula. The news has been received that his third son, thirteen years of age, has been killed in the mill while assisting in turning a log.

—John Gardner, an employee of W. R. Thompson's mill at Teeswater, Ont., was temporarily left in charge of a machine for cutting maple into blocks. While adjusting the machinery his hand struck the saw, which cut the wrist about half way through.

—The boiler in H. B. Palmerton's saw mill near Elmwood, Ont., exploded on the 20th of March last, killing a young man named Lewis Cole, and injuring others. While Mr. Palmerton and the engineer were fixing the governors the boiler exploded. The deceased was hurled twenty feet and jammed between two logs.

—A serious boiler explosion occurred in the saw, stove and heading mill of Watson Bros., at Ridgetown, Ont., on April 6th, by which four men lost their lives and others were seriously injured. The deceased men are T. J. Buller, Wm. Watson, William Cunningham and Daniel Leitch. The building was completely wrecked. The employees were preparing to commence the day's work, and the fires had been under the boilers for some time. Pieces of machinery were thrown blocks away.

PLANING MILL OF J. R. EATON, ORILLIA.

AMONG the leading planing mill men and contractors of Ontario may be classed Mr. J. R. Eaton, of Orillia. On the corner of Colborne and Andrew streets is situated his neat two-storey mill. Its dimensions are 58x100 ft., and from it upwards of \$50,000 worth of business is turned out each year by planing and contracting work. On the ground floor is the office and stock room of moulding, etc., taking up the front half. In the rear is the heavy machinery, consisting of a band re-saw, matcher, planer, moulder, self-feed rip saw, buzz planer, cut-off saw, two rip saws, and an automatic saw filer. In a rear annex of 24x24 ft. are the engine and boiler, both of the Goldie & McCulloch make, the former of 30 h.p., and the latter of 60 h. p., which will shortly be replaced by a 50 h. p. engine and a 75 h.p. boiler of the same manufacture. An exhaust fan will be instituted in a short fan for the shavings. Besides the boiler room is a Hoyt & Smith dry kiln of 18x30 ft.

In the front part of the top floor are stored the sashes and doors, the rest of the floor being taken up with the lighter machinery, comprising a moulder, tenoner, mortiser, rip saw, cut-off saw, planer, shaper, panel raiser, blind slat machine, sandpaperer, boring machine, jig saw, band saw, turning lathe, door clamp machine, and a mitring machine.

In the mill an average of thirty men are employed the year round. The premises are lighted by electricity and heated by steam. The yard of over half an acre is constantly full of lumber, and in a shed 250x30 ft. in size is kept the supply lumber. Last year from outside sources 600,000 feet was shipped into the yard, besides 400,000 feet acquired from local manufacturers. Mr. Eaton has been successful in securing many large contracts, his trade extending from Sudbury to Cannington. His enterprise has gone a long way towards building up the town in which he lives.

A new boiler is being put into Wm. Allan's saw mill, Perth, Ont., by the Goldie & McCulloch Co., of Galt.

AN ADVANTAGE OF THE BAND.

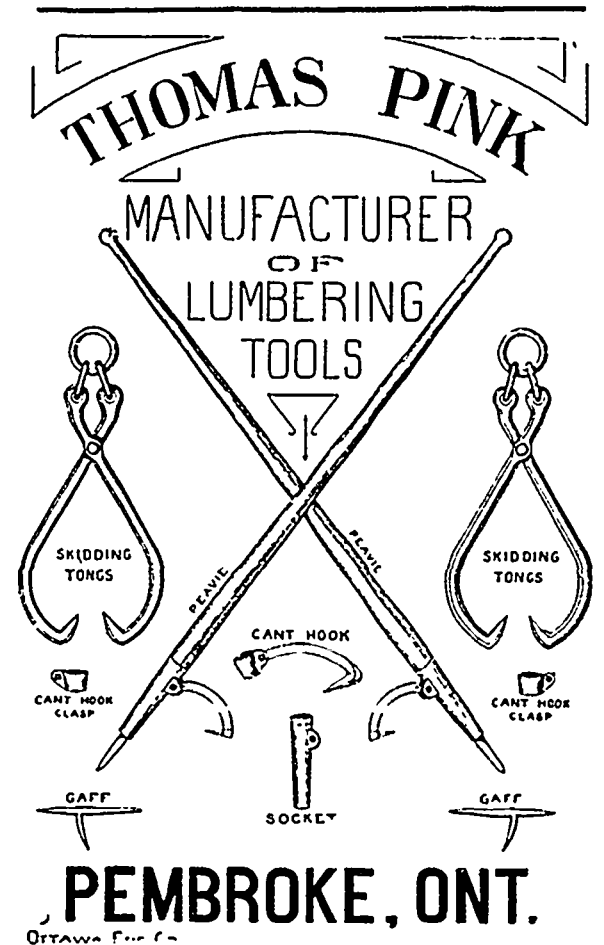
SPEAKING of the growing use of band mills, the Timberman, of Chicago, says: In a certain Southern mill equipped with two band saws, the lumber product overran the log scale 27 per cent. on an average, for the year 1894. But a short distance from this mill is another, cutting precisely similar timber, with circular saws, which, from sixteen million feet of logs, produced but fourteen million feet of lumber, board measure. These comparative results were not repeated in 1895, except for somewhat better management of the circular mill.

Such a contrast is a most startling object-lesson in the value of the band mill. The mill in which the lumber product fell short of the log scale was carelessly conducted; in fact, it was found that one or two sawyers were bent in getting the logs off the carriage as quickly as possible, and had been sending a large amount of stuff to the burner that should have been worked up into lumber. But it is doubtful if even with ordinary careful sawing the lumber scale would have equalled the log scale. But such a difference cannot be accounted for by saving in saw kerf. The average Southern mill, even though it cut particularly with a view to finish and flooring, cannot effect a saving in the kerf alone of over 12½ per cent., if it can average that.

We believe that one of the chief causes for the better results arising from the use of a band mill is the caution and care taken by the sawyers and other mill hands. The ordinary circular is an incentive to waste. Every sawyer is bound on seeing how much he can cut in ten hours, how quickly he can turn his log, get it off the carriage and have a new one in its place; but with a band there is a disposition, just as marked, to get all out of a log that there is in it. The band saw was invented for that purpose, and the purpose is impressed on all who have anything to do with it. Not that a band saw is a slow tool by any means, for its product in ordinary sized logs is nearly that of the circular, and in large

logs is greater, but not so many logs will be put through the mill in the course of a day, and the sawyer feels that he is out of the competition for a saw mill record. He has, therefore, a disposition to make a record for good work, and for the gain he can make over the log scale. There is moral character in the band saw which is infectious, and which constitutes one of its chief advantages.

The cost of timber in China is so great that wooden trestles are out of the question. The railway station houses are all built of light, burned brick, plastered on the outside. The broad platforms are of stone or concrete, filled with earth and cinders.



Lumbermen's Supplies

We are making a Specialty of Lumbermen's Supplies, and are offering, with other goods, a good Japan Tea, fine draw and make, at 12½ cents. Get a sample of this splendid Tea suitable for the Camp.

H. P. Eckardt & Co.

WHOLESALE GROCERS

TORONTO.

CAMP SUPPLIES

Being extensive operators in the lumber business, as well as Wholesale Grocers, we are exceptionally well qualified to fill orders for Lumbermen's Supplies.

MAIL ORDERS GIVEN PROMPT ATTENTION.

DAVIDSON & HAY

Wholesale Grocers

TORONTO

OAK TANNED BELTING

TORONTO
20 FRONT ST EAST
TELEPHONE 475

THE J.C. Mc LAREN BELTING CO MONTREAL

SPLINTERS.

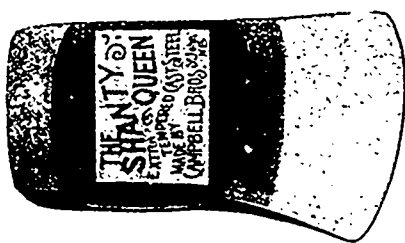
Of 597 trees struck by lightning in the forest near Moscow 302 were white poplars. The planting of these trees as protectors against lightning is therefore recommended.

Experiments show that the tapping of trees for sap or pitch does not weaken the timber. The probable effect of tapping is to decrease the thickness of the new layers of wood-cells.

An automatic match making machine now in operation, is an interesting curiosity, seemingly endowed with almost human intelligence. It cuts 10,000,000 sticks per day, and arranges them mechanically over a vat where the heads are attached at a surprising rate of speed.

The imports of lumber into South Africa via Natal and Delegoa Bay last year were as follows: From United States, 1,020,144 cub. ft.; United Kingdom, 185,121 cub. ft.; Sweden, 2,465,777 cub. ft.; Norway, 1,041,327 cub. ft.; New Zealand, 32,548 cub. ft.; India and Burmah, 56,679 cub. ft.; South Australia, 1,592 cub. ft.

A great part of Prince Edward Island was once thickly wooded, but at present it produces no more timber and lumber than it requires, and in addition to the local output a very considerable amount is imported from Nova Scotia and New Brunswick. A little pine still exists, and with the other coniferous trees, and some excellent hardwood of various kinds, supplies in part the local demand.



THE "SHANTY QUEEN" AXE
GAMPBELL BROS.

Send for sample lot and try this axe in frosty weather...
Manufacturers
St. John, N. B.
WRITE FOR PRICES

J. D. SHIER

MANUFACTURER OF

Lumber, Lath & Shingles

BRACEBRIDGE, ONT.

AGENTS WANTED

To sell Capt. Geo. S. Thompson's New Book, "Up-to-date of The Life of a Lumberman." (Profusely illustrated). 2,000 copies sold already, and only out of the press two months. The first book ever written by a practical lumberman, describing the many interesting stages of Lumbering, and the hazardous life of those engaged in the woods and on the river. An edition in French will be out shortly. The book will be mailed to anyone on receipt of \$1.00. Address to

GEO. S. THOMPSON,
Care The Times Printing Co.,
Peterboro', Ont.

Good terms to agents.

Peterboro', Ont.

STEEL SHINGLES
SOLD UNDER GUARANTEE.
CHEAP AS WOOD
WRITE FOR CATALOGUE
THE PEDLAR METAL ROOFING CO
OSHAWA, ONT.

Your Stomach Distresses You

after eating a hearty meal, and the result is a chronic case of Indigestion, Sour Stomach, Heartburn, Dyspepsia, or a bilious attack.

RIPANS TABULES

Promote Digestion, Regulate the Stomach, Liver and Bowels, Purify the Blood, and are a Positive Cure for Constipation, Sick Headache, Biliousness, and all other Diseases arising from a disordered condition of the Liver and Stomach. They act gently yet promptly, and perfect digestion follows their use. Ripans Tabules take the place of an Entire Medicine Chest, and should be kept for use in every family.



Price, 50 Cents a box. At Druggists, or by mail, RIPANS CHEMICAL CO., 10 SPRUCE ST., NEW YORK.

KEEP YOUR EYES OPEN FOR
H.W. PETRIE'S PATENT
OF NEW & 2ND CLASS
OFFICES & WORKS
ADJOINING NEW UNION STATION, TORONTO, CAN.
MACHINERY

CANADIAN OFFICE & SCHOOL FURNITURE CO. LTD.
PRESTON, ONT.
FINE BANK OFFICE, COURT HOUSE & GRAND STAIR FITTINGS
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

THE CANADIAN PHOTO ENGRAVING BUREAU
TELEPHONE 2155
1710 ADELAIDE ST. W. TORONTO
COPPER, IRON, BRASS ENGRAVING
FOR ALL KINDS OF
AND ALL SIZES
HILL-TONE ENGRAVING

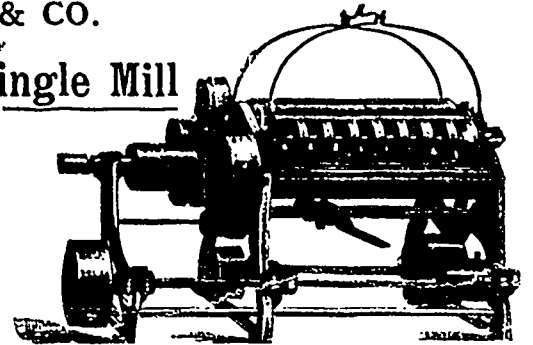
P. PAYETTE & CO.

MANUFACTURERS OF

Saw Mill and Shingle Mill

Machinery . . .

Boilers and Boiler Fittings
Shafting, Pulleys, Hangers
Brass and Iron Castings
Cant-Hook Handles, etc.



Write for Terms and Prices.

PENETANGUISHENE, ONT.

Dry Kilns and Heaters
CHEAP

One Second-Hand Sturtevant Heater, 1,000 feet one-inch Pipe and Fan to match; has been used only about four months.

One Sturtevant Heater, 5,500 feet one-inch Pipe and Fan to match; in first-class order.

(The above have been used in lumber dry kilns, but are also applicable to heating buildings, etc.)

For prices and full particulars of the above, also our catalogue and prices of Heating and Ventilating, write the . . .

McEachren Heating & Ventilating Co.

GALT, ONT.

Pumps & HYDRAULIC MACHINERY

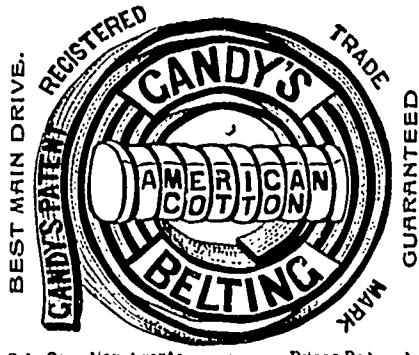
DUPLEX AND SINGLE STEAM AND POWER

The Northey Mfg. Co. Ltd.

TORONTO

THE LAURIE ENGINE CO. - MONTREAL

Sole Agents for Province of Quebec.



Sole Canadian Agents :-: Prices Reduced.
WATEROUS, BRANTFORD, CANADA.

RAILS FOR TRAMWAYS

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

JOHN J. GARTSHORE,
49 Front St. West, Toronto.

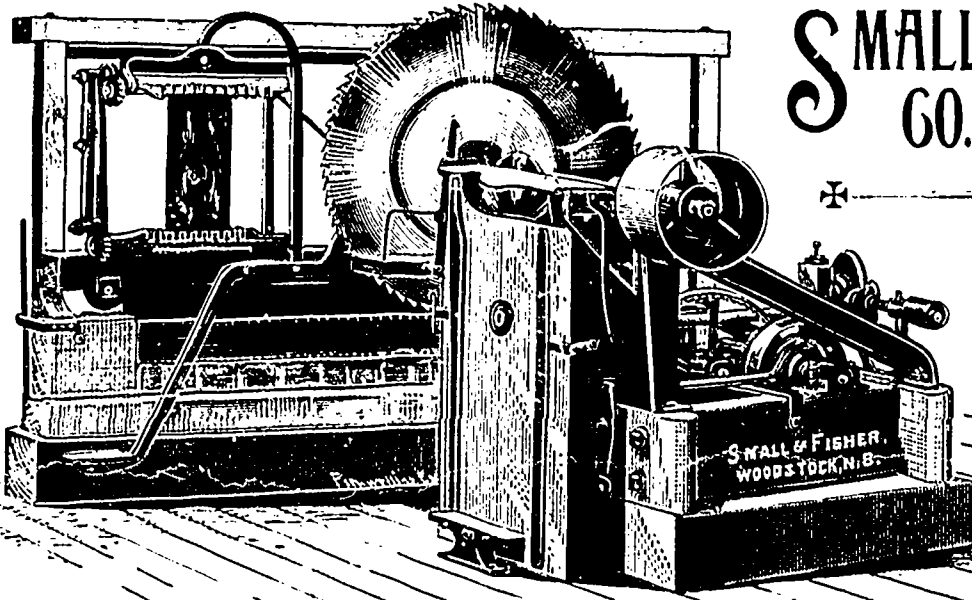
RONAN LINE

CONNECTION Canadian Pacific Railway, Rome, Watertown & Ogdensburg; New York Central & H. R. Rd.; Ronan Line.

HUDSON RIVER LUMBER TRANSPORTATION
Water Connection from Albany with lumber points in Canada via Canadian Pacific Railway to New York Harbor, Long Island Sound and inland waters of New Jersey.

Offices- Lumber District, ALBANY, N. Y. 20 South St., NEW YORK. Telephone, 711 Broad.

PARKER C. RONAN, Manager.



**SMALL & FISHER
CO., Ltd.**

Woodstock, N. B.

Patent
Shingle
Machine

**LUMBERMAN'S
VEST-POCKET
INSPECTION
BOOK**

Containing Rules for the Inspection and Measuring of Pine and Hardwood Lumber in the leading markets of Canada and the United States. Embracing also many useful tables and calculations of everyday service to lumbermen.

Prepared by the Editor of the "Canada Lumberman."

Toronto, Canada
C. H. MORTIMER, Publisher
1895

THE above is a fac simile of the title page of the latest and most complete Lumber and Inspection Book published.

We shall be pleased to send you a copy on receipt of four 3 cent Canadian postage stamps

THE **CANADA LUMBERMAN**,
Toronto, Canada

Saw-Mill Pulleys

We are now building Special Strong Wood Split Pulleys for Saw-Mills at prices cheaper than you can build them at home for. Get our figures before ordering.

Dodge Wood Split Pulley Co.

Office: 68 King St. West, TORONTO, Ont.

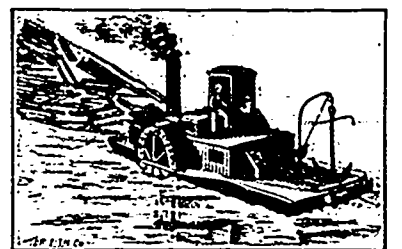
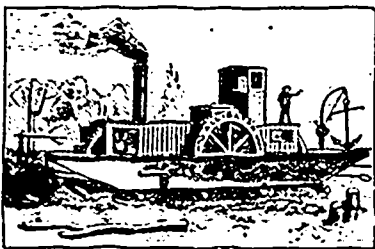
WEST & PEACHEY

SIMCOE, ONT.

MANUFACTURERS OF

ALLIGATOR STEAM WARPING TUGS

STEAM ROAD MAKER



ENGINES AND BOILERS FOR STEAM YACHTS



•• Saw Mill Machinery ••

THE ROYAL ELECTRIC COMPANY

MONTREAL, QUE.

Western Office . TORONTO, ONT.

Cable and Telegraph Address, "Roylelectric."
MANUFACTURERS OF

Electrical Machinery and Apparatus

... FOR ...

LIGHT and POWER

SPECIAL ATTENTION GIVEN TO

LONG DISTANCE TRANSMISSION OF ELECTRICITY FOR LIGHT AND POWER

ALSO FOR

ELECTRIC PLANTS FOR MILLS

Distant water powers utilized and Mills lighted and operated safely.
CORRESPONDENCE SOLICITED.

Every Lumberman wants it

35 cents buys it

Scribner's Lumber and Log Book

SAVES TIME SAVES MISTAKES SAVES MONEY

BRIMFUL OF EVERY-DAY,
PRACTICAL INFORMATION

Address :
THE CANADA LUMBERMAN, Toronto

THE

A. R. WILLIAMS MACHINERY CO.

(LIMITED)

Offer **SPECIAL BARGAINS** in the following size Engines during the **NEXT THREE WEEKS**, in order to clear out as many as possible before moving into their new premises

- 28 in. x 36 in. Slide Valve, very heavy, for saw mill.
- 24 in. x 30 in. William Hamilton Mfg. Co.'s make, re-built and guaranteed.
- 18 in. x 36 in. very heavy Slide-Valve Engine, box frame.
- 16 in. x 26 in. Box Bed, Twin Engines, Killey make.
- 14 in. x 19 in. Box Bed, Slide Valve, (no name).
- 12 in. x 30 in. Thompson & Williams "Brown" Automatic.
- 11 1/4 in. x 14 in. Box Bed, Horizontal, Thomas make.
- 10 in. x 24 in. Girder Bed, Cowan make, Slide Valve.
- 10 in. x 12 in. Straight Bed, Slide Valve, Erie City make, Double Crank.
- 8 3/4 in. x 12 in. Box Bed, Slide Valve, (no name).
- 9 3/4 in. x 12 in. Slide Valve, Waterous make.
- 8 1/4 in. x 10 in. Waterous, Rock Valve.
- 8 1/4 in. x 10 in. Box Bed, Slide Valve, (no name).
- 10 in. x 12 in. Box Bed, Slide Valve, McRae make.
- 6 in. x 12 in. Girder Bed, Slide Valve, Henderson & Co. make.
- 5 1/2 in. x 14 in. Box Bed, Slide Valve, valve on top of cylinder, Armington & Sims, automatic.
- 2-6 in. x 8 in. Slide Valve, new, Bell of Hensall make.

Vertical Engines

- 6 in. x 6 in. Hamilton make.
- 5 in. x 6 in. Doty make, Vertical.
- 4 1/2 in. x 6 in. " " "
- 4 in. x 5 in. Polson pattern.
- 4-4 in. x 4 in. Vertical, Marine, McMullen make.
- 2 1/2 in. x 4 in. Marine.
- 5 1/2 in. x 7 in. Doty make.
- 3 in. x 4 in. Payne, Automatic.
- 2 1/2 in. x 4 1/2 in. Marine (no name).

Address

TORONTO

CANADIAN RUBBER COMPANY

A. ALLAN, President.
J. O. GRAVEL, Secretary-Treasurer.
J. J. MCGILL, General Manager.
F. SCHOLLES, Managing Director.

Capital, \$2,000,000.00.

of MONTREAL, TORONTO and WINNIPEG

MANUFACTURE

SUPERIOR QUALITY

Rubber Goods

For Mechanical Purposes

Rubber Belting, Packing, Hose, Etc.



FORSYTH

Seamless Rubber Belting

Seamless Tube Hose

These Patents we control for Canada

Head Offices and Factory
MONTREAL

Ontario Branch . . .
Corner Front and Yonge Sts.

TORONTO

J. H. WALKER
Manager

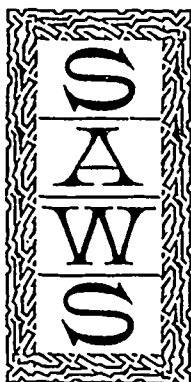


SHURLY & DIETRICH

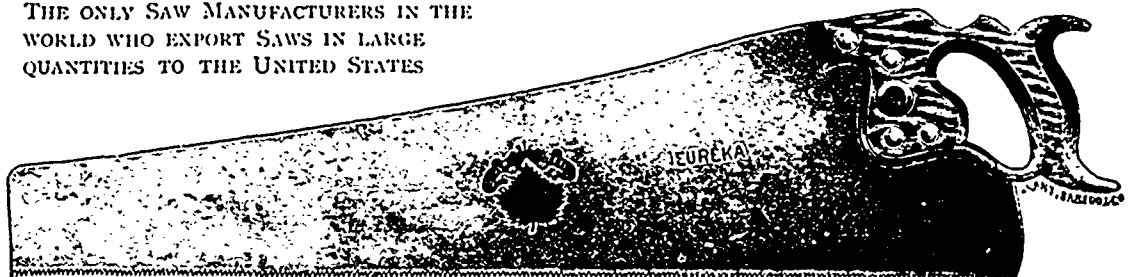


GALT, ONT.

MANUFACTURERS OF



THE ONLY SAW MANUFACTURERS IN THE
WORLD WHO EXPORT SAWS IN LARGE
QUANTITIES TO THE UNITED STATES



SOLE PROPRIETORS OF THE SECRET CHEMICAL PROCESS OF TEMPERING : : Our Silver Steel Saws are Unequaled

1844

The Lumberman's

“Remedial Bill”

That Really Permits of No Discussion.

We can show lumbermen how by an investment of from \$3,300 to \$3,500, they can, in converting 5 million feet of logs into lumber, save a gross sum of \$6,375.00, making a net saving each year of \$3,000.00.

Is this not a “REMEDIAL BILL” that permits of no discussion?

WRITE US FOR PARTICULARS.

Waterous Engine Works Co.

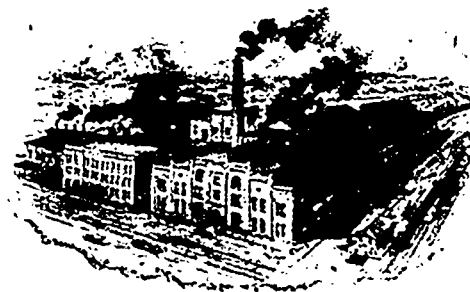
BRANTFORD, CANADA

Note—

34 ALLIS BAND MILLS
sold in Canada since Jan.
of '94.

We are building them fast
and can fill orders promptly.

1896



NEW WORKS OCCUPIED FEB'Y '96

Galt Machine Knife Works



MACHINE KNIVES

OF EVERY DESCRIPTION

FOR **Woodworking Machines**

... Send for Price List ...

PETER HAY - - - - Galt, Ont.

WHY BAND SAWS BREAK

SIXTEEN

REASONS,

AND HOW TO

AVOID THEM



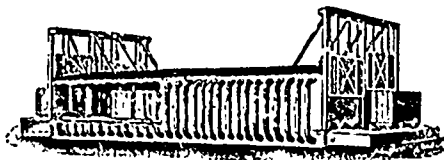
Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

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

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

Address— CANADA LUMBERMAN, Toronto, Ont.

THE FARMER'S



PATENT DRY KILN.

The Latest, the Cheapest and Best

FOR DRYING

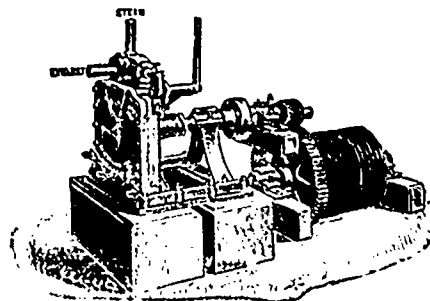
LUMBER, STAVES, HEADING, ETC.

Write for Particulars to

J. S. FARMENTER,

Box 512, Woodstock, Ont.

THE DAKE STEAM FEED



EMBODIES THE FOLLOWING ADVANTAGES:

Simplicity of Construction,
Positive and Easy Management,
Economical Use of Steam,
Small Space Occupied,
Cheapness,
Easy Adaptation to either New Mills
or those now in use.

The movement of the engine in either direction is under the absolute control of the Sawyer, thus accommodating the speed of the feed to the size of the logs.

Mill men who have used other makes of Steam Feeds, comment favorably on the economical use of steam of our feed over others.

Write for Catalogue and full particulars.

THE PHELPS MACHINE CO.



EASTMAN, QUE.

Mention the CANADA LUMBERMAN when corresponding with Advertisers.

Dauntless Shingle and Heading Machine

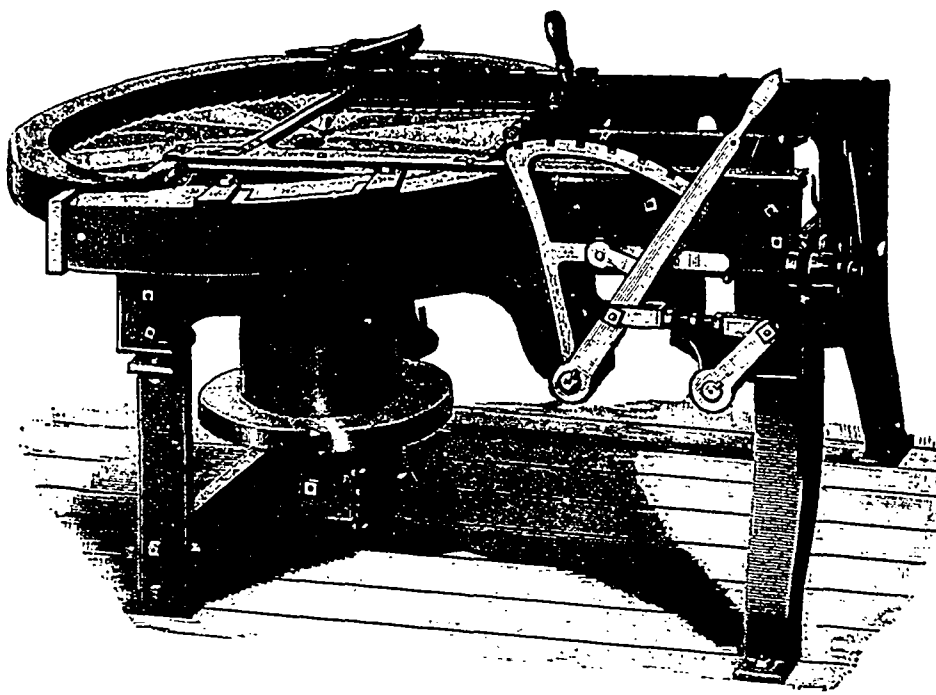
∴ WILL make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

... Is of Iron throughout, very heavy and rigid, strongly bolted and braced.

THE CARRIAGE

... Is very light and strong, made of forged Cast Steel Plate, running on steel ways or tracks. Will take in a block 18 inches wide and 19 inches long, adjustable for 16-inch or 18-inch shingles.



— CAPACITY FROM 25,000 TO 50,000 PER DAY —

[COPY.]

HASTINGS, Dec. 3, 1894.

F. J. DRAKE, Esq., Belleville.

Dear Sir,—We have waited two years before giving you our idea of your machinery. This we do to thoroughly test it, and can now say we know what it can do.

Your Saw Mill is equal, or nearly equal to any we have seen of much heavier make, and far in advance of any light rig in the market. The capacity per day is fully up to your guarantee, 40 M per day. We have tested with eight men.

The Shingle Mill cannot be beaten for any kind of timber. Ours being in a manner a custom mill, we have good, bad and indifferent timber, but for all it does the work satisfactorily.

You may use this in any way you please, or refer to us at any time.

Yours truly,
(Sgd.) W. J. & H. W. FOWLES.

Canadian Locomotive & Engine Co., Limited, - - Kingston, Ont.

MANUFACTURERS, UNDER THE F. J. DRAKE PATENTS, OF

SAW, SHINGLE and LATH MACHINERY.

THE JAMES ROBERTSON CO. LTD. Manufacturers of.....

::::: A full line of Mill Rubber and Leather Metal, &c., always

Saws of all Description

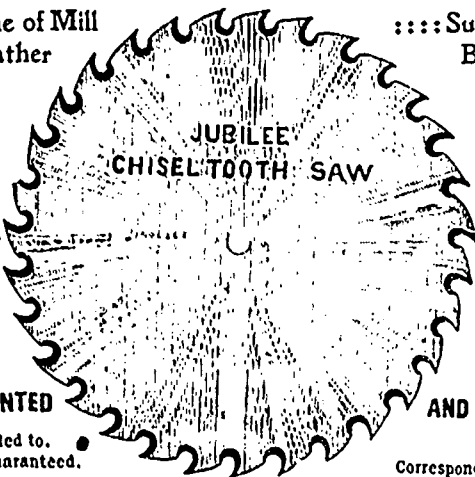
::::: Supplies, including Belting, Babbit carried in stock.

Head Office: 144 William St. MONTREAL

Factories at Montreal, Toronto and St. John, N.B.

ALL OUR SAWS FULLY WARRANTED

Orders promptly attended to. Satisfaction guaranteed.



CIRCULAR, GANG AND MILL SAWS A SPECIALTY

Correspondence Solicited.

REDDAWAY'S PATENT.

CAMEL BRAND BELTING

BREAKING STRAIN 6IN CAMEL HAIR BELT—14,181 lbs
 " " 6IN DOUBLE OAK LEATHER—7,522 "

W.A. FLEMING.
 SOLE AGENT FOR CANADA
 57, ST FRAS. XAVIER ST. (24 FRONT ST. E. VICTORIA CHAMBERS)
 MONTREAL. (TORONTO.) OTTAWA.

Send for Prices

OF OUR

MANASHE

HICKORY

WOOD-SPLIT

PULLEYS

MICHIGAN

Are you thinking of moving to better your condition?

If so, come to Michigan, where you can get comfortable living, good markets, good neighborhood, reasonable transportation for your products. A PROSPEROUS STATE!

The Flint & Pere Marquette R. R. Co.

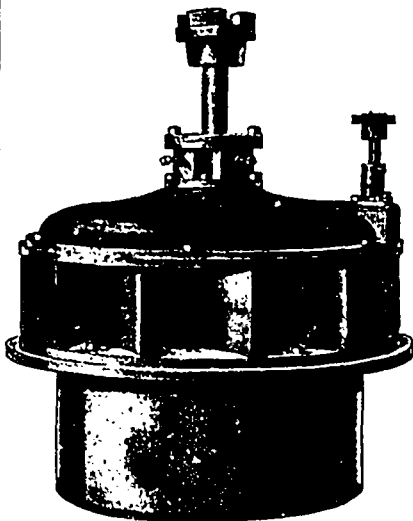
have good lands for sale prices ranging from SEVEN TO FIFTEEN DOLLARS per acre, according to location and timber; easy terms.

You make no mistake locating in this territory.

ADDRESS:

A. Patriarche, Traffic Manager
 Saginaw, Mich.

ROBERT GRAHAM
 Iron Founder and Machinist
 Water Wheels, Engines and Mill Machinery a Specialty. OTTAWA, ONT.



STANDARD . . . WATER WHEEL

MADE in sizes from 6 inches to 84 inches diameter. Wheel one solid casting. 84 per cent. of power guaranteed. In five pieces. Includes wheel of case, either register or cylinder gate. Water put on full gate or shut completely off with half turn of hand wheel, and as easily governed as any engine



Cut showing Wheel Removed from Case.

Write for Estimates, References and Catalogues of the STANDARD WATER WHEEL, also Milled and Rough Gearing of every size and description; Engines, Mill Machinery and Electric Power Plants; Latest Improved Band Saw Brazing Tables; Shears and Gummers; also Surface Grinder for Shingle Saws.

THE CANADA LUMBERMAN (Weekly and Monthly Editions) \$1.00 per year.

USE THE FAMOUS . . . **PINK LUMBERING TOOLS**

Duck Bill Peavies, Round Bill Peavies, Finest Duck Bill Winter Cant Hooks

Lowest Prices

THOMAS PINK

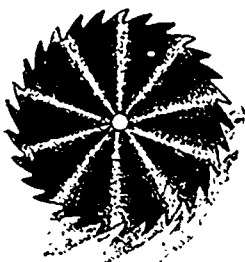


Cant Hook Handles
 Peavy Handles

By Car Load or Dozen

Pike Poles, Skidding Tongs, Boom Chains

PEMBROKE, ONT.



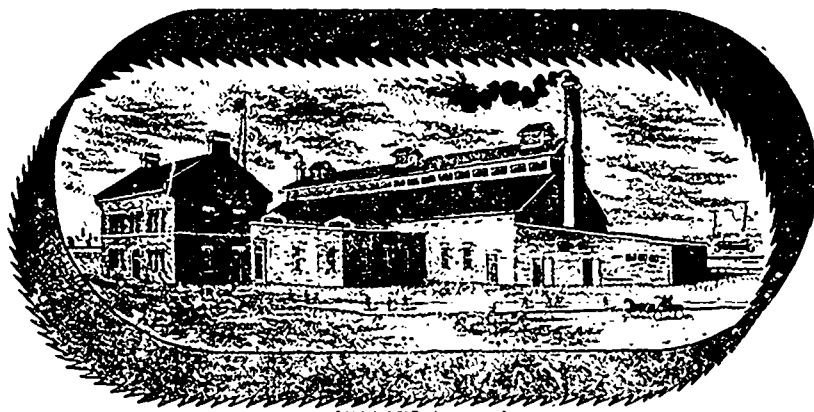
OTTAWA SAWWORKS CO.

SAWS

MANUFACTURERS OF ALL DESCRIPTIONS OF

Circular, Mill & Gang, Shingle, Butting, Concave, Band, Cross-cut, Billet Webs

MIDDLE ST. Ottawa, Ont.



OTTAWA SAWWORKS CO.
 OTTAWA, ONT.

WRITE FOR QUOTATIONS