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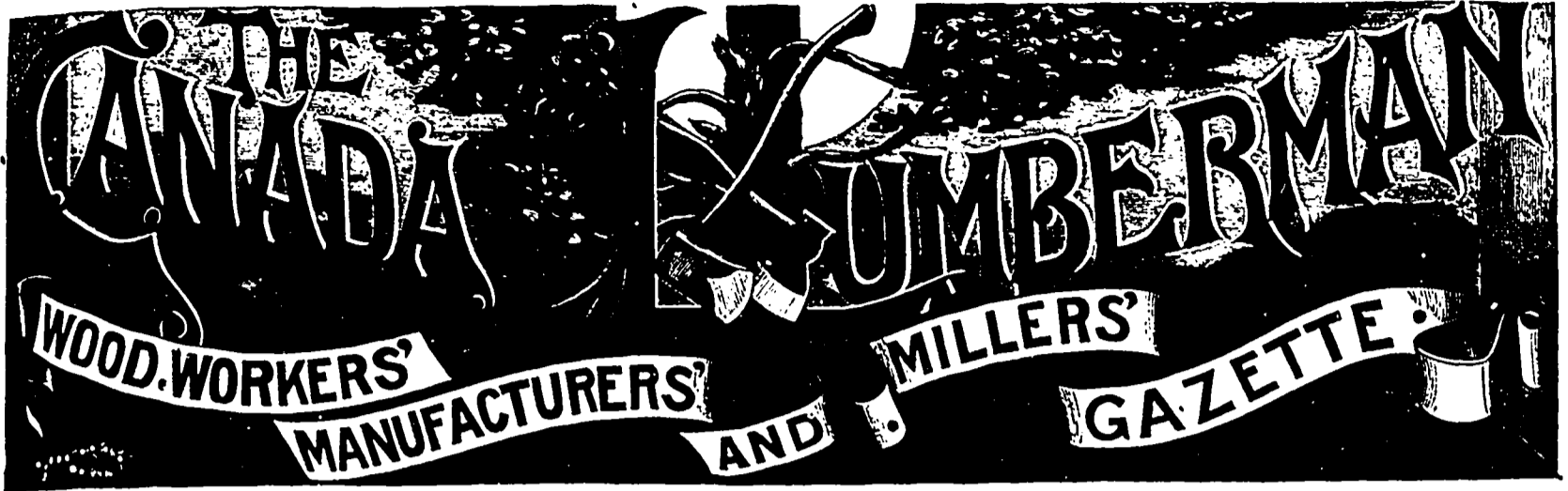
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# EASTERN CANADA AND EXPORT EDITION

Devoted to the Interests of Manufacturers and Exporters of Timber Products in the Provinces of Quebec, New Brunswick and Nova Scotia



TORONTO, ONT., OCTOBER, 1898

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

VOLUME XIX. NUMBER 10.

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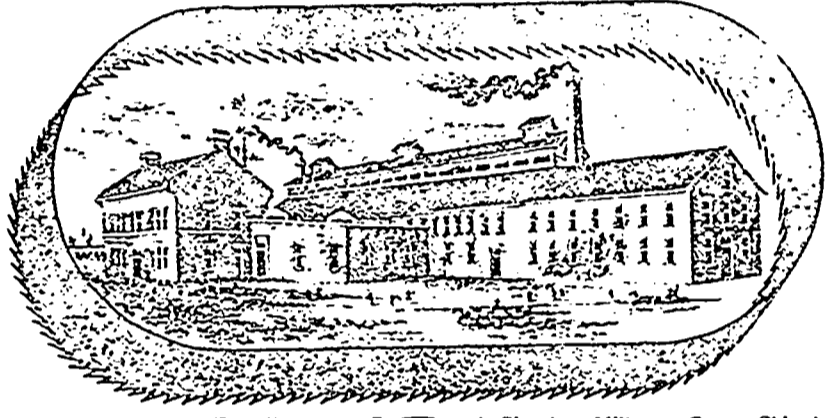


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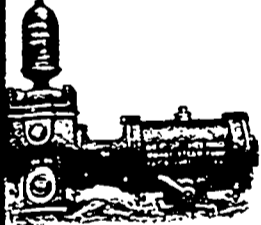
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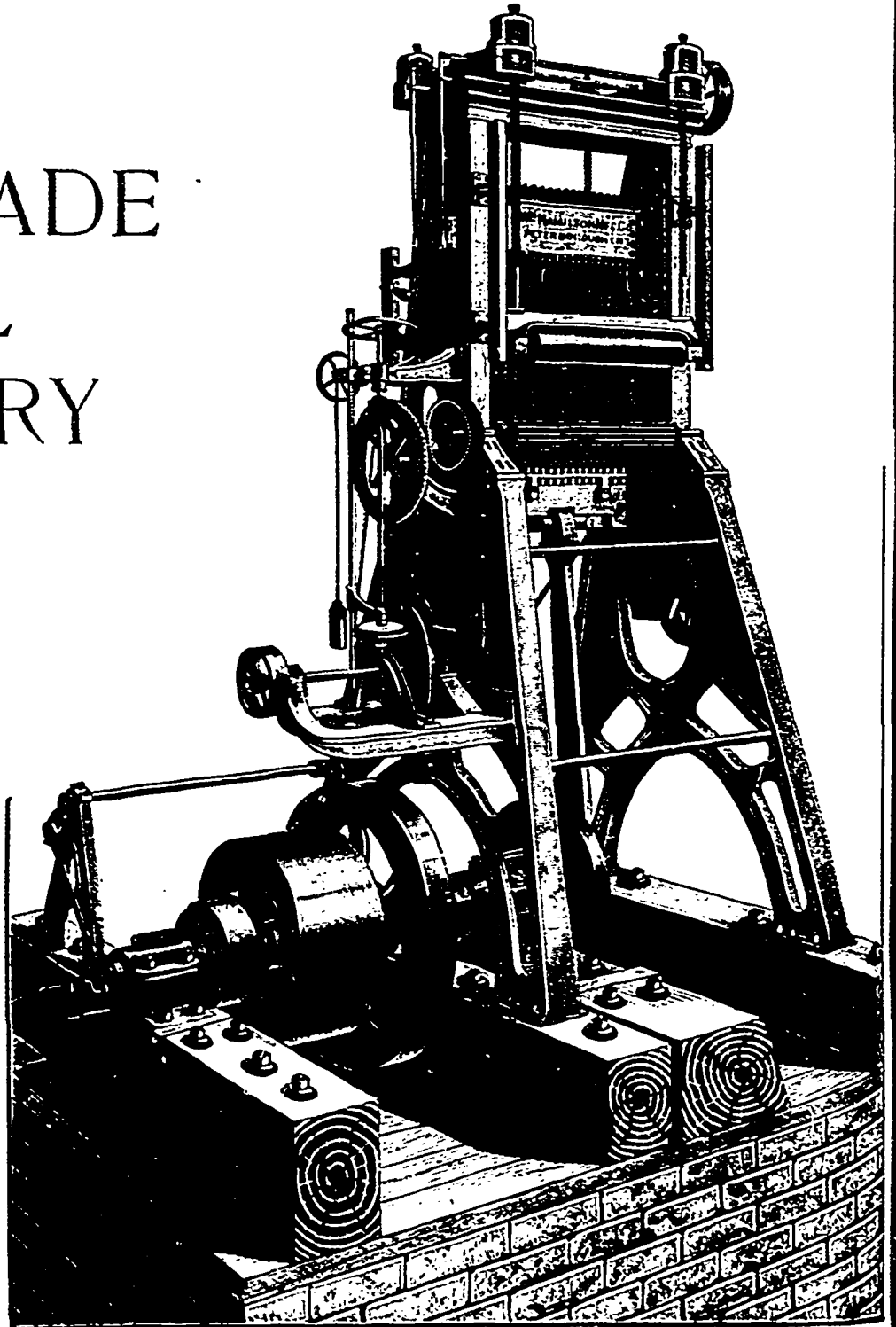
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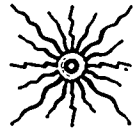
VOLUME XIX.  
NUMBER 10.

TORONTO, CANADA, OCTOBER, 1898

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Single Copies, 10 CENTS.



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(J. Burstall & Co., Quebec.)



MR. W. MALCOLM MACKAY,  
St. John, N.B.



MR. S. SLOAN BENNETT,  
(Bennett & Co., Quebec.)



MR. F. E. NEALE,  
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REPRESENTATIVE SPRUCE EXPORTERS OF EASTERN CANADA

# Province of Quebec



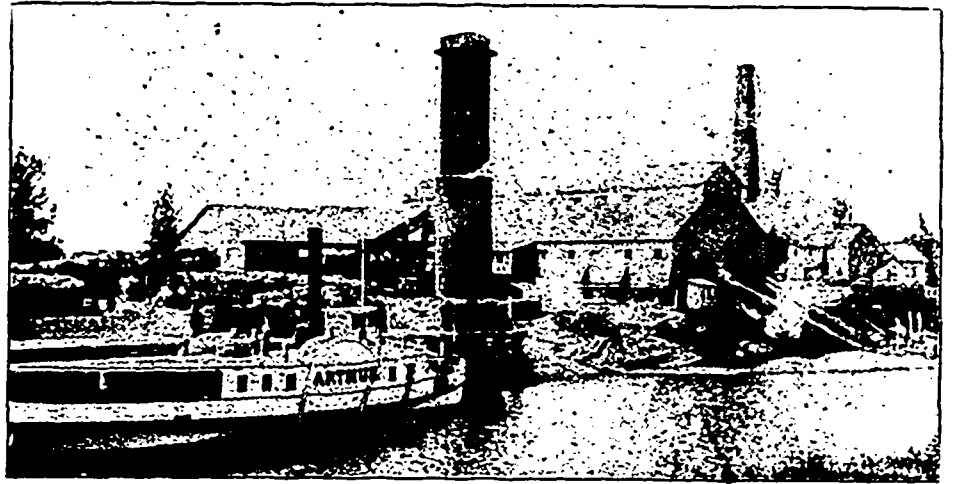
As early as 1667 timber is said to have been shipped from Quebec to Europe, and in 1735 Lieutenant Hocquart is reported to have sent timber and boards to Rochefort, but it was not until the beginning of the present century that timber was exported to England to any extent. The trade grew rapidly, and for a few years as many as 1,350 square-rigged vessels entered the St. Lawrence river annually to load timber. In the year 1864 over 20,000,000 cubic feet are credited as having been exported, since which time there has been a remarkable falling off. At one time the shipbuilding and other timber operations at the port of Quebec gave employment to over 8,000 laborers, 40 to 50 ships being built in a year. To-day the lumbering industry of the province is still flourishing, but may be said to be divided into three branches, the pine trade, the spruce trade, and the square and waney timber trade.

Much of the Ottawa valley product, almost exclusively pine, is loaded on the ocean steamers at Montreal for export, while a few years ago the great shipping point was Quebec. Last year there were exported from the port of Montreal lumber to the value of over \$5,000,000, the principal shippers being Messrs. Dobell, Beckett & Co., W. & J. Sharples, R. Cox & Co., J. Burstall & Co., McArthur Bros., Watson & Todd, E. H. Lemay, and the Export Lumber Company. It is expected that the total for this year will be somewhat less, owing to the depression in some of the foreign markets. The pine forests of the province are not extensive, being confined chiefly to the Ottawa and St. Maurice districts.

We now come to a consideration of the spruce industry, which is rapidly growing. In her spruce forests the province of Quebec possesses a valuable asset, and one which, in process of development, will enrich the community at large. Spruce timber predominates in the St. Maurice, Saguenay, Lake St. John, Rimouski, Bonaventure and Grandville agencies, in nearly all of which districts saw mills have been and are being established. It is believed by explorers, however, that extensive tracts of spruce timber are to be found in northern districts yet unexplored. The spruce deals of Quebec are shipped largely

to the British market, from the ports of Three Rivers, Sorel, Batiscan, Quebec, etc. There are several well equipped mills manufacturing spruce, and importers desirous of contracting for stock should meet with no difficulty in securing the carrying out of the specifications. For the benefit of readers in foreign countries, we give

several firms have manufactured it in the State of Arkansas, and rafted it to Quebec, a distance of about 1,000 miles. Some of the waney pine comes from Michigan. There are located in the city of Quebec several shippers who are not manufacturers. These include Messrs. W. & J. Sharples; J. Burstall & Co.; Dobell, Beckett &



SAW MILL OF THE TOURVILLE LUMBER MILLS COMPANY AT LOUISVILLE, QUE.

below the names and addresses of some spruce manufacturers in Quebec :

Cookshire Lumber Co.	Cookshire.
Charlemagne & Lac Oureau Lumber Co.	Charlemagne.
Tourville Lumber Mills Co.	Montreal.
J. K. Ward	"
John Breakey	Chaudiere Mills.
King Bros.	Quebec.
Price Bros. & Co.	"
H. M. Price & Co.	"
Joliette Lumber Co.	Joliette.
A. Gravel Lumber Co.	Etchemin.
Rimouski Lumber Co.	Rimouski.
Alex. Baptist	Three Rivers.
Wm. Richards & Co.	"
St. Maurice Lumber Co.	"
Warren Curtis	"
J. D. Sowerby	Oak Bay.
E. L. Sewell	Quebec.
Geo. St. Pierre & Co.	Fraserville.
J. J. Wheelock	Connor's Station.
Kennedy Island Lumber Co.	Clair Station.
Joseph Lavoie	Bic.
John Fenderson & Co.	Sayabec.
M. Blacquire	St. Alexis.
J. & P. Nadeau	Grand Cascapedia.
New Richmond Lumber Co.	New Richmond.
Cascapedia Lumber Co.	Cascapedia.
R. N. LeBlanc	Bonaventure.
B. A. Scott	Roberval.

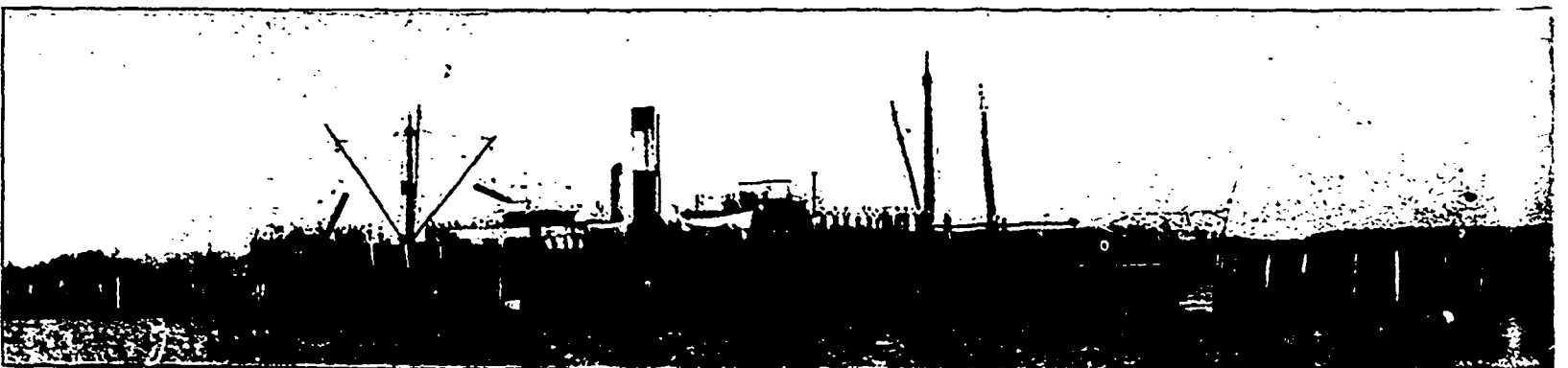
Co.; Harold Kennedy; McArthur Bros. Co.; Bennett & Co.; H. R. Goodday & Co.; Dunn & Co.; W. H. Wilson; D. R. McLeod, and Benson & Co.

Concerning the steamship "Pearlmoor," shown in the accompanying illustration, Messrs. W & J. Sharples say: "It was loaded by us for Greenock, Scotland, and is the first turret steamer to carry timber from Quebec. Her cargo was as follows: Timber, 4,183 loads; deals, 94 p.s.h.; ends, 62 p.s.h.; boards, 34 p.s.h. Total cargo, 4,810 loads. She was commanded by Capt. C. C. Bruhn, and the stevedore was Daniel Griffin. Her net register tonnage is 2,220 tons, and she sailed from Quebec 17th August and arrived at Greenock September 3rd, 1898.

### THE TOURVILLE LUMBER MILLS CO.

Among the leading manufacturers of lumber in Quebec province is the Tourville Lumber Mills Co., with headquarters in the Imperial Building, Montreal, and large saw mills at Louiseville, Pierreville and Nicolet, P. Q. This concern was originally established in the year

Quebec has continued to hold its timber trade, although much of the timber loaded there is cut in Michigan and Ohio. In the case of square oak,



STEAMER "PEARLMOOR," LOADED WITH TIMBER AT QUEBEC BY MESSRS. W. & J. SHARPLES.

1880 under the style of Tourville & Co., the co-partners being Hon. L. Tourville and Mr. Joel Leduc. In 1891 the important interests were duly organized and incorporated under the present title, with a paid-up capital of \$250,000, thus rendering the corporation one of the most extensive of its kind in the Dominion. About two years ago Hon. L. Tourville, president of the company, died, necessitating a slight reorganization, and the officers now are:



MR. RODOLPHE TOURVILLE,  
President Tourville Lumber Mills Company.

Rodolphe Tourville, president; Nap. Gill, vice-president; Edouard Ouellette, manager; and Arthur Tourville, secretary-treasurer. The company own large timber limits in the province, cutting much of the finest timber that is marketed. They have built three of the largest and most completely equipped saw mills, located respectively at Louiseville, Pierreville and Nicolet. These mills have numerous gangs of saws, and all the best arrangements for the economical handling of logs and lumber, and have an enor-



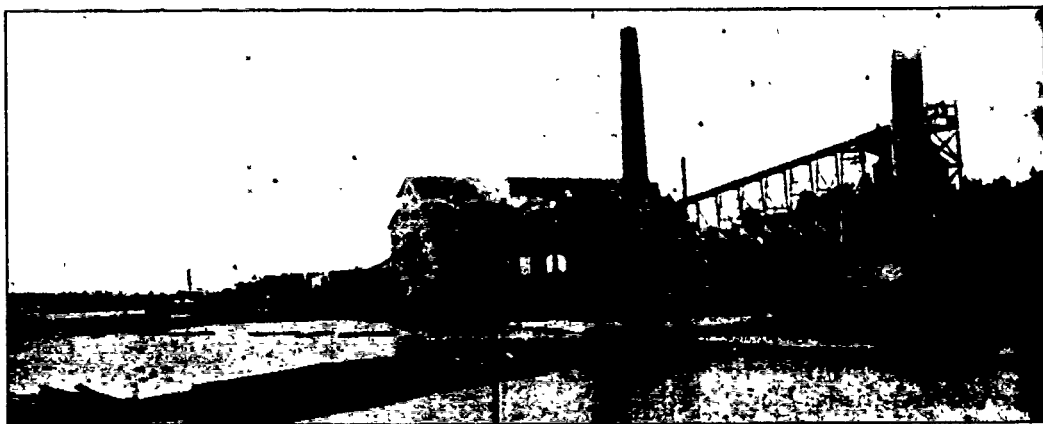
MR. ARTHUR TOURVILLE,  
Secretary-Treasurer Tourville Lumber Mills Company.

mous annual capacity. About 175 men are employed in the Louiseville mill, 200 in that at Pierreville, and 60 in the Nicolet mill. The cut consists of good grades of white pine, spruce and hemlock lumber, which is exported to the United States and European countries. The company own extensive timber limits, handle 35,000,000 feet of lumber annually, and ship direct by cargo from their mills. It is one of the most representative concerns in the lumber trade of the province, and is worthy of the great

success achieved. Portraits of Messrs. Rodolphe Tourville, president, and Arthur Tourville, secretary, and a view of the Louiseville mill, appear herewith.

#### ST. MAURICE LUMBER COMPANY.

Located at Three Rivers, Que., at the mouth of the St. Maurice river, which drains an area of 16,000 square miles of timber lands, are the large saw mills of Alex. Baptist, Warren Curtis, and the St. Maurice Lumber Company. The officers of the latter company are: Wm. Mc-



SAW MILL OF THE ST. MAURICE LUMBER COMPANY AT THREE RIVERS, QUE.

Echron, president; G. F. Underwood, vice-president and manager; and N. B. Sprague, secretary-treasurer, all of Glen Falls, N. Y., where they are interested in the Glen Falls Pulp and Paper Company.

The St. Maurice mill, which is under the local management of Mr. Robert F. Grant, contains two band saws, two edgers, two resaws, one lath mill, and six machines for barking spruce slabs, the machinery being supplied by the Waterous Company, of Brantford. The capacity

#### H. R. McLELLAN.

The lumber property acquired by Mr. H. R. McLellan is situated at St. Margaret's Bay, one hundred and sixty miles from Rimouski, on the St. Lawrence river. The mill is located at the mouth of the river, facing on a basin of water which will hold eight million feet of logs. The basin, about one mile square, has twenty feet of water, and fifteen on the bar at low water. The river extends two hundred and fifty miles due north, and the surrounding country is densely crowded with spruce timber of

a magnificent size, which will run three logs to the thousand feet.

The mill, which has recently been completed, is fitted with a Carrier, Laine & Co. double saw, rotary, re-sawing machine (for boards, with a capacity of about twelve thousand per day), two planers, double edger and clapboard machines.

#### PULP MILL AT PARRSBORO.

The town council of Parrsboro, N. S., has decided to grant a bonus of \$10,000 to secure the erection in that



INTERIOR VIEW OF ST. MAURICE LUMBER COMPANY'S MILL, THREE RIVERS, QUE.

of the mill is 160,000 ft. b.m. per 24 hours, and they have been running day and night all summer. The cut this season, when finished, will be about 26,000,000 ft. b.m., manufactured chiefly into 3-inch deals, pine and spruce. The logs are made on streams in the St. Maurice territory and driven down the St. Maurice river to Three Rivers. Exterior and interior views of the mill are shown.

town of a sulphite pulp mill of thirty tons capacity daily. Mr. Thos. Allison, the well-known pulp mill designer, has made a report to the town, in which he states that the site is an excellent one. Parrsboro is an open port, which permits of shipments being made to all countries the year round. Abundance of wood can be secured, and coal can be put into the boiler house as required at a cost of one dollar per ton, thus doing away with the necessity of keeping a large supply in stock. In view of these favorable conditions, the offer of the town will no doubt be taken advantage of.

# Province of New Brunswick



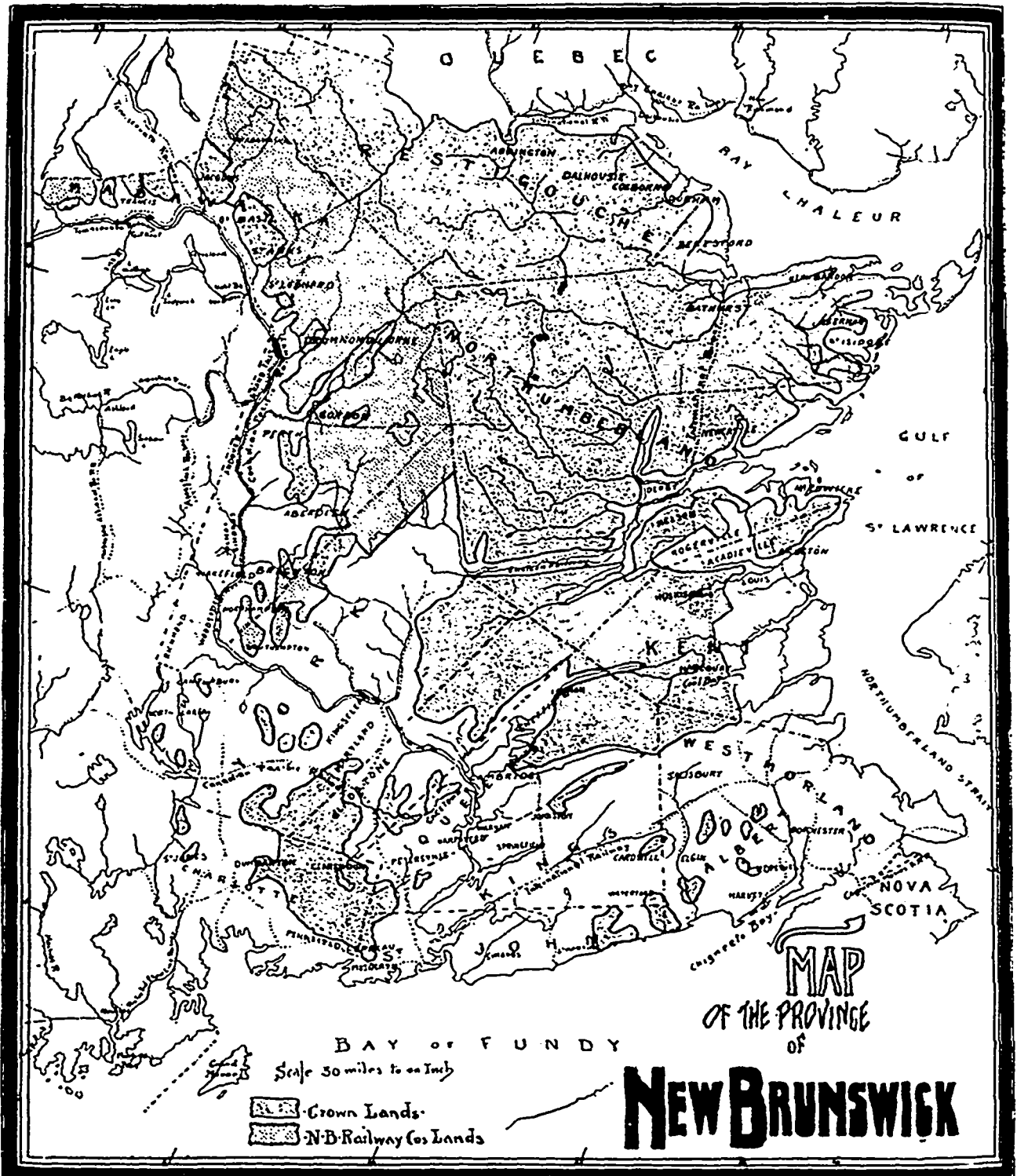
NEW Brunswick, which was made a distinct province in 1784, occupies that part of the Dominion of Canada situated nearest Great Britain. The port of Chatham, on the Miramichi river, is nearer to Liverpool than any port of importance on the mainland of America, the distance by the shortest route, via Belleisle, being about 2,430 miles, whereas Halifax, in Nova Scotia, is distant 2,450, Quebec 2,633, and New York 3,105 miles. The province embraces about 28,000 square miles of territory, equal to 17,920,000 acres. Of this perhaps 12,000,000 acres are timber lands, divided as follows: 1,647,772 acres held by the New Brunswick Railway Co.; 4,500,000 acres under license from the Crown by lumber operators; 3,000,000 acres still held by the Crown, and less extensive tracts owned by Messrs. Alex. Gibson, Nova Scotia Land Company and others. The lands owned by the Crown and the New Brunswick Railway Company, as well as the private property, are shown by the accompanying map. Among the largest holders of Crown timber tracts are the following: Samuel Adams, 304 square miles; Robertson & Allison, 204; George Burchill, 129; A. H. Campbell, 448; Alex. Gibson, 172; Hale & Murchie, 154; G. G. King, 104; Geo. Moffatt, 271; J. P. Mowat, 79; Estate Hugh McLean, 195; McLeod & Atkinson, 77; C. & J. Prescott, 60; W. C. Purves, 50; A. F. Randolph, 101; Randolph & Hale, 70; David Richards, 185; Wm. Richards, 254; Allan Ritchie, 247; James Robinson, 125; Kilgour Shives, 235; E. Sinclair, 170; Daniel Sullivan, 140; George J. Vaughan, 111; Edward Walker, 72; J. B. Snowball, 466; G. K. McLeod, 54; I. R. Todd, 92; Alfred West, 47; Sumner Co., 84; Sumner Co. and Clark, Skillings & Co., 82; W. E. Skillings, 170; Maritime Sulphite Fibre Co., 80 square miles. Some of the above timber berths

are owned by persons who have not operated them, but, having every faith in the future value of timber, are holding them for speculative purposes.

The province of New Brunswick is well watered, affording excellent facilities for floating logs to mill points, although, of course, occa-

sionally a dry spring and light fall of snow in the winter cause logs to be hung up. Spruce is the predominating timber, a very large quantity being taken out each year for export and for the manufacture of pulp. There have been established in New Brunswick within late years some

price of \$8 per mile, or such greater sum as may be offered at the public sale. The stumpage dues on spruce, pine or hardwood logs are one dollar per thousand superficial feet; on pine timber up to 14 in., one dollar per ton, with 25 cents for each additional inch; spruce timber, 50 cents



extensive pulp mills, two being at Chatham. Pine is not found in that province in abundance. Other native woods are cedar, maple, birch and hemlock, with small quantities of other timber.

By the regulations of the Crown, timber lands are leased for the term of 25 years, at the upset

per ton; hardwood timber, 90 cents per ton; cedar logs, 80 cents per thousand. It is difficult to arrive at an estimate of the total annual cut of timber. The following, taken from the last government report, shows the quantity and character of the timber cut on Crown lands for the year ending October 31st, 1897:

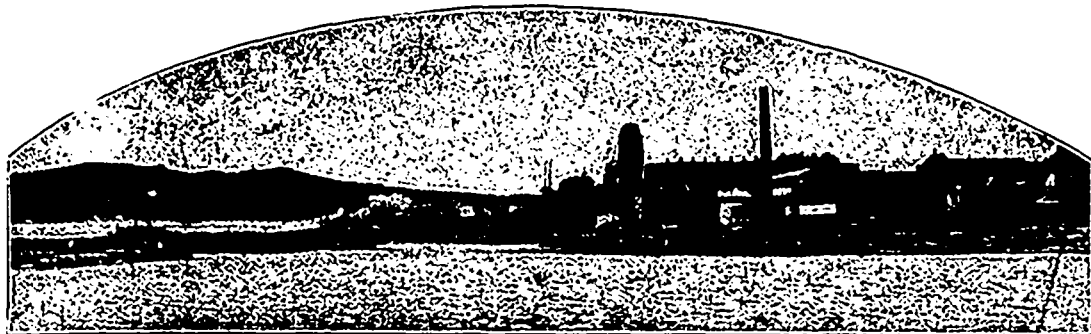
Spruce and pine logs, 102,841,781 sup. ft.; hemlock logs, 2,246,104 sup. ft.; cedar logs, 11,239,208 sup. ft.; hardwood logs, 3,711,761 sup. ft.; hardwood timber, 164 3/4 tons; pine timber, 345 tons; spruce timber, 7 tons; cordwood, 463 1/2 cords; hemlock bark, 119 3/4 cords; shingles (sawed), 7,300 M.; railway ties, 98,430 pieces; cedar posts, 9,000 pieces; spruce poles, 400 pieces; telegraph poles, 494 pieces; boom poles, 9,825 pieces; brackets, 3,400 pieces; knees, 60 pieces; wier poles, 1,000 pieces; spruce spars, 35 pieces;

state of Maine. These include E. D. Jewett & Co., S. T. King & Sons, Miller & Woodman, Stetson, Cutler & Co., J. R. Warner & Co., Charles Miller, Dunn Brothers, and James Hamilton & Co.

Some of the mills ship direct to foreign markets; others prefer to sell to local shippers, who contract for the deals and lumber at a fixed price either at the mill or delivered alongside the vessel. Among the shippers are Messrs. Alex. Gibson & Sons, W. Malcolm Mackay, George

The mill of which we speak is equipped with modern machinery for the production of spruce deals, palings, planed and matched boards, box stuff and shingles. The annual production of the latter is quite large. The deals are cut with an improved gang saw, and for cedar there are seven shingle machines.

Mr. Shives is becoming well known as an exporter. His shingles, of course, are disposed of in the United States, but the chief market for deals and boards has been Great Britain. A couple of years ago, however, he shipped two cargoes to the River Platte and two to Marseilles, France, and this year he made an experimental shipment to Australia. It is by the efforts of such men as Mr. Shives that our goods become established in foreign countries. As the owner of nearly three hundred square miles of valuable timber lands, he is recognized as one of the wealthiest lumbermen of Northern New Brunswick.



SAW MILL OF KILGOUR SHIVES AT CAMPBELLTON, N.B.

piling, 125 pieces; piling, 4,340 lin. ft.; cedar rails, 1,500 pieces; fir logs, 1,022,392 sup. feet.

The above represents but a small proportion of the timber cut, as last year the trans-Atlantic shipments alone were given by Hon. J. B. Snowball as 494,000,000 feet. We give below the names of some manufacturers throughout the province who have given attention to the export trade:

E. Sinclair	-	-	Bridgetown.
Sargeant Bros.	-	-	Nelson.
W. A. Hickson	-	-	Newcastle.
E. Hutchison	-	-	Douglstown.
Geo. Burchill & Sons	-	-	Nelson.
George J. Vaughan	-	-	Loggieville.
L. Doyle	-	-	Douglstown.
Geo. Moffatt	-	-	Dalhousie.
W. W. Doherty	-	-	Campbellton.
Sumner Co.	-	-	Bathurst.
H. F. Todd & Sons	-	-	St. Stephen.
J. & T. Jardine	-	-	Richibucto.
Edward Walker	-	-	"
Atkinson & McLeod	-	-	"
Henry O Leary	-	-	"
J. D. Irving	-	-	Buctouche.
Murray & Gregory	-	-	St. John.
A. Cushing & Co.	-	-	"
Hillyard Bros.	-	-	"
Purves & Murellie	-	-	"
Geo. E. Barnhill	-	-	"
Randolph & Baker	-	-	"
C. M. Bostwick & Son	-	-	Salmon River.
Alex. Gibson & Sons	-	-	Marysville.
Tracadie Lumber Co.	-	-	Tracadie.
C. & J. Prescott	-	-	Albert.
Adams, Burns & Co.	-	-	Bathurst.
Kilgour Shives	-	-	Campbellton.
David Richards	-	-	"
Wm. Richards	-	-	"
J. B. Snowball	-	-	Chatham.
G. G. & W. C. King	-	-	"
Estate Hugh McLean	-	-	Salmon River.
J. Murchie & Son	-	-	Fredericton.
R. A. Estey	-	-	"
Donald Fraser & Sons	-	-	"
Hale & Murchie	-	-	"
Wm. Richards	-	-	"
Miller & Woodman	-	-	Fairville.
H. F. Eaton & Sons	-	-	Milltown.
D. & J. Ritchie & Co.	-	-	Newcastle.
E. J. Smith	-	-	Shediac.
J. L. Black & Son	-	-	Sackville.
Alma Lumber Co.	-	-	Alma.
John Galey & Co.	-	-	Carleton.
John Dewar & Son	-	-	St. George.
Fred More & Son	-	-	Woodstock.
Geo. W. Upham	-	-	Perth.
Stevens Lumber Co.	-	-	Salmon River.
Montgomery Bros.	-	-	Dalhousie.

McKean and John E. Moore, of St. John, and J. B. Snowball and F. E. Neale, of Chatham.

Many of the mills throughout New Brunswick are supplied with the latest and most modern equipments, which no doubt accounts in a measure for the success which has attended the efforts of manufacturers to secure foreign trade. The principal markets are Great Britain, West Indies, South America, France and Spain, and during the past summer a shipment of lumber was made to Australia, but with what success we have not learned.

Foreign capitalists seeking fields for investment are being attracted to New Brunswick by its abundance of spruce timber, ample railway and watercourse facilities, and excellent means of transportation to foreign markets. The erection

TRACADIE LUMBER COMPANY.

The Tracadie Lumber Company, of Tracadie, have recently erected a very complete mill at Sheila. It is very nicely situated on high ground, overlooking an inlet of the sea, which forms a most perfect pond for holding the logs, and is sufficient in size for any stock that could possibly be put in. The mill, a view of which is shown, consists of a single band, with room and power for a second band, with the ordinary other machinery, including bull wheel for getting the logs into the mill. In the log deck is placed a steam cutting-off saw, sufficiently large to cut the largest pine logs into suitable lengths for making clapboards, of which a large quantity is turned out. The steam kicker and log loader throw the logs from the bull wheel on to the carriage, and the steam niggers handle and turn the logs after they are on the carriage. A gun shot steam



TRACADIE LUMBER COMPANY'S SAW MILL AT SHEILA, N.B.

of extensive pulp mills is about to be commenced. This will be of material benefit to the province, and utilize much raw material to the best advantage.

KILGOUR SHIVES.

Situated at Campbellton, on the Restigouche river, is the large mill of Mr. Kilgour Shives, of which an illustration is given. Mr. Shives is known as a progressive lumber merchant, always on the watch for improvements and new ideas. He is an inventor of an excellent machine for the cutting of slabs and edgings into fire-wood.

feed handles the carriage, and live rolls with transfers take care of all the product from the band mill. Sawdust and refuse carriers are so arranged as to take care of all the refuse that is left. Most of this, however, is worked up in box shooks and other stock of this description, so that but little of the material is wasted. All the usual appliances for turning out lumber promptly and perfectly are employed, and the class of stock manufactured is of excellent quality, while the mill is a credit to both the owners and the builders. The complete equipment was supplied by the Waterous Engine

At the great saw-milling centre of St. John, several United States firms have extensive mills, sawing almost exclusively for the Eastern States trade, and obtaining their log supply from the



Works Company, of Brantford. Mr. Foster, the manager of the company, lives at the mill. He has, in one season, got his boarding house and mill yard, and all the surroundings of the mill, in exceedingly fine shape. It is, in fact, one of the most complete mills of New Brunswick, and is thoroughly modern in its equipment and methods. Mr. Foster has shown great energy and ability in getting it into shape.

A great deal of the stock is pine, and this is

ton, sometimes five or six million feet in a year. Mr. Hale has been connected with the lumber trade for a quarter of a century or more, and has a thorough knowledge of the timber resources of the upper St. John district. His partner, Mr. George A. Murchie, who lives in Calais, Me., is also of the firm of James Murchie & Sons, who have mills at several points in New Brunswick. The Victoria mill is connected both by rail and water routes with the markets, and has excellent

New Brunswick, forty-five years having elapsed since he first engaged in the business. Until 1878 Mr. Murray resided and operated mills at Springhill, some miles above Fredericton, on the St. John river. In 1868 he acquired an interest in the mill property at Marble Cove, just above the "falls" about a mile above the head of St. John Harbor, including the mill and 13 acres of land fronting on deep water. In 1876 the mill was destroyed by fire. In the same year the present buildings were erected, and in 1882 Mr. Murray became sole proprietor. He has since made many improvements in the plant, until the mill is one of the best equipped on the river. Last year his confidential clerk, Mr. J. Fraser Gregory, was admitted as a partner, and the firm name was changed to Murray & Gregory. The mill has gang and rotary for long lumber, and machines for making laths, boxes, cooperage stock and such small products. The greater portion of the output is



SAW MILL OF HALE & MURCHIE AT FREDERICTON, N.B.

largely cut into clapboards for the eastern markets, automatic machines being used for this purpose. The clapboards, after drying a few weeks, are planed before shipping, there being a first-class planing mill outfit in connection with the mill, including, besides the clapboard planers, two other large and heavy machines for flooring and timber, besides considerable other equipment. The planing mill has all modern appliances for handling the material to be planed. The output of the mill is from 50,000 to 60,000 feet of lumber per day, and from 30,000 to 40,000 $\frac{1}{2}$  clapboards, besides the other material.

#### HALE & MURCHIE.

The lumbering firm of Hale & Murchie, of Fredericton, is composed of Mr. Fred H. Hale, M.P., who resides at Woodstock, and Mr. George A. Murchie, who lives in Calais, Maine. The mill at the above place consists of a structure 175 ft. by 40 ft., with engine house and other necessary buildings. A gang, rotary, two lath machines and planer comprise the main equipment.

The product is an excellent quality of deals, boards, scantlings (all dimensions), laths, and finished clapboards. The firm cut about 12,000,000 feet of logs, but only manufacture themselves about nine million feet. The logs are cut on the Tobique, and except for a little pine are all spruce timber. Some three or four million feet of deals are cut each year for shipment to England. A good deal of the output is sent by rail to St. Stephen for export, chiefly to the United States. Mr. Fred H. Hale, M.P., who lives at Woodstock, and represents Carleton county in the Dominion parliament, is the managing partner, and formerly owned mills at Woodstock, floating the logs in rafts down to Frederic-

ton, sometimes five or six million feet in a year. Mr. Hale has been connected with the lumber trade for a quarter of a century or more, and has a thorough knowledge of the timber resources of the upper St. John district. His partner, Mr. George A. Murchie, who lives in Calais, Me., is also of the firm of James Murchie & Sons, who have mills at several points in New Brunswick. The Victoria mill is connected both by rail and water routes with the markets, and has excellent

#### ADAMS, BURNS & COMPANY.

The above firm are successors to the St. Lawrence Lumber Company, whose property in New Brunswick was disposed of a few years ago by the liquidators. The business is carried on under the management of Mr. T. D. Adams. The property includes mills at Bathurst and Burnsville, some eight or ten thousand acres of fine timber land on the line of the Caraquet railway, the lease of 150 square miles of Crown timber lands at Burnsville, and 250 square miles on the streams emptying into the Bathurst basin; also the Gulf Shore Railway, which, with the Caraquet line, gives a total length of eighty miles, connected by the latter line with their mills at Burnsville

in deals for the English market, but some of the product goes to the United States and some to South America, being sold in nearly all cases direct from the wharf. There are ample wharves and yards, with dry houses. The firm cut each winter about 40,000,000 feet of spruce, pine and cedar logs, manufacturing 17,000,000 and selling the balance to other mills. Their limits comprise 900 square miles, and are situated on the Big Black, St. Francis and Main rivers and Temiscouata Lake. Mr. Murray is also president of the St. John Log Driving Company and a director of the Fredericton Boom Company.

The Dodge Manufacturing Company of Toronto have received a letter from the Globe File



SAW MILL OF ADAMS, BURNS & COMPANY AT BATHURST, N.B.

and Bathurst. The company export annually about ten million feet of lumber. A view of the Bathurst mill is herewith printed. The mill at Burnsville is water power, and cuts about three million feet yearly.

#### MURRAY & GREGORY.

The senior member of this firm, Mr. W. H. Murray, is known as one of the oldest lumbermen of

Manufacturing Company, of Port Hope, in which they express great satisfaction with the rope drive furnished by the Dodge Company. They say in part: "We put it up as per your plans, started it to run, and it went off so well we have only adjusted one pulley since. You may refer persons to us when talking rope drives. We would not return to gears again for four times what the four drives cost us."

# Province of Nova Scotia



LUMBERING in Nova Scotia, as in the other provinces, is an important industry, and one from which considerable revenue is derived. But when we speak of revenue, it is necessary to explain that the timber lands are not a perpetual source of income to the government, inasmuch as they are sold outright to private individuals, and no timber licenses are granted. In the province of Nova Scotia, excluding Cape Breton, which has little timber, the area of good timber land is estimated at 2,700,000 acres. Of this perhaps 2,000,000 acres are in the hands of lumbermen, the balance being held by the Crown, although it is said that no large tracts of valuable timber property are to be obtained. The perpetuity of the industry, therefore, rests upon the lumbermen themselves, who, we believe, are now giving some attention to the question of reforestation. In view of the fact that spruce will reproduce itself in a comparatively short time, it should not be a difficult matter to obtain a permanent supply. Among the manufacturers engaged in the export trade are the following :

Sheet Harbor Lumber Co.,	Sheet Harbor.
T. G. McMullen & Co.	Truro.
E. I. White & Son,	Sands River.
Prescott & Gillespie,	Shulie.
Newville Lumber Co.,	Newville.
Pugsley Bros.,	River Hebert.
H. L. Tucker,	Parrsboro.
Pickles & Mills,	Annapolis.
Blackadar Bros.,	Meteghan.
Emile Stehelin,	New France.
Chas. Burrill & Co.,	Weymouth.
G. D. Campbell	Weymouth.
W. & G. Colp,	Mill Village.
J. & J. Coop,	Milton.
A. C. & C. W. Elderkin,	Eatonville.
Rhodes, Curry & Co.,	Amherst.
Clarke Bros.,	Bear River.
E. D. Davison & Sons,	Bridgewater.
Charles T. White,	Apple River.
Gold River Lumber Co.,	Gold River.
Alfred Dickie,	Lower Stewiache.
J. P. Mitchell,	Mill Village.
Harlow & Kempton,	Milton.
Hill, French & Co.,	Musquodoboit Harbor.
Kelley Bros.,	River Hebert.
Young Bros. & Co.,	St. Margaret's Bay.
Nova Scotia Lumber Co.,	Sherbrooke.
Shulie Lumber Co.,	Shulie.
B. B. Barnhill,	Two Rivers.
D. G. Campbell,	Weymouth Bridge.
S. P. Benjamin & Co.,	Wolfville.
Tusket River Lumber Co.,	Tusket River.
Dickie & McGrath,	Tusket.
R. Richardson & Son,	Bedford.
John Millard,	Liverpool.
Frank G. Nicol,	Granite Village.
Millar & Freeman,	Milton.
Wm. Chisholm,	Halifax.
H. Elderkin & Co.,	Port Greville.
Huntley & Apps,	Parrsboro.
Parker, Eakins & Co.,	Yarmouth.
H. W. Freeman,	Jordan River.
R. W. Hardwick,	Annapolis.
R. W. Kusman & Co.,	Canning.

The annual cut of spruce is about 200,000,000 feet, while a much smaller quantity of hardwoods is taken out. Last year the value of the lumber exported from Nova Scotia was about \$3,000,000, but this was an unusually active year. The principal shipping points are Halifax, Parrsboro, Amherst, Bridgewater and Pictou, but there are

also a number of smaller ports at which vessels are loaded. The location of Nova Scotia, on the Atlantic seaboard, permits of an extensive export trade in lumber, Great Britain, South America and the West Indies being her largest markets. Previous to the imposition of the United States lumber duty of two dollars, a quantity of lumber was sold in the Eastern States, but that trade is now of little account.

This year the lumbermen of Nova Scotia have experienced a severe depression, owing to an overstocking of the British market last year and a consequent drop in prices. British deals have this year sold at from \$1 to \$2 per thousand feet less than last season, and the outlook at the present time is not altogether encouraging. As a result, a number of manufacturers are giving greater attention to other markets, such as the West Indies and South America, and we believe with success.

### LUMBERING METHODS IN NOVA SCOTIA.

THE conditions under which lumbering was carried on in Nova Scotia up to about twenty years ago were quite different from those at present prevailing. While shipbuilding was the paramount industry, but little attention was given to the manufacture of lumber for export, but when it became unprofitable to build wooden ships, attention was turned to the saw mills. Formerly but very few mills depended wholly on exporting all their cut, most of them saving shipplank, decking, and other timber required in vessel building, and only sawing the rough and otherwise unsuitable timber for shipbuilding purposes into deals, battens and deal ends, which were sent to St. John in small trading vessels. The mills up to the time mentioned were usually operated by water power, located at or near the mouth of some stream where small schooners could be loaded, and would be run two or three months in the spring, then again in the fall for a short time, when the summer drought was put an end to by the fall freshets. At that time a gang mill sawing thirty-five thousand superficial feet of deals between daylight and dark would be counted an exceedingly good mill.

A great many of the shipyards were equipped with rotary mills between 1870 and 1880, and when shipbuilding waned such experience had been gained in the handling of these mills by the operators that they naturally turned them to the manufacture of deals, some operators being very successful, which fact impelled other, but inexperienced, men into buying "rotary mills." These mills were made light, in order that they could be moved from place to place where a few hundred thousand feet of logs could be got together. Some mills would be moved four times during the year. They generally ran in the winter right in the woods, as near as

possible to the stump, the sawn lumber being much easier to haul to the shipping point than the round log to a convenient place to saw, and in this way at least one handling of the lumber would be saved. Usually the owner of the standing timber would cut and haul the logs to the mill, then haul the sawn lumber to the shipping point, paying the owner of the mill so much per thousand for sawing, although in some cases the mill owners would contract to deliver the deals at the shipping point, taking the whole contract for cutting, hauling and sawing. Again, some mill owners would buy a piece of timber land and operate it as he chose, while some would pay a certain amount per thousand feet stumpage, the result being in all cases the same, viz., employment for the mill.

The natural result has followed the introduction of this class of mills, viz., that spruce timber lands are very scarce and in great demand throughout the province. The objectionable feature of the portable saw mill is the large amount of refuse timber it leaves in the woods in the shape of heavy slabs, which in some cases would make a couple of boards or a piece of scantling. It is claimed that the labor of sawing it into shape, and the hauling, would cost more than it would be worth. In the last few years some of the careful operators have added lath and picket machines to their plants, and thus save what formerly was worse than wasted.

In the counties of Cumberland, Colchester and Hants the portable mill has had its greatest success these counties formerly being the great shipbuilding points and having a great quantity of timber without water facilities for drawing to tide water.

To a less extent the portable mill has been used in Pictou, Kings, Annapolis and Digby counties, while on the south shore there were but two or three portable mills. Along the Atlantic coast of the province there are some very good rivers which, in addition to providing log driving facilities, also furnish water power to saw the logs notably Moser river, Sheet Harbor, East and West rivers, Musquodoboit river, Lahave river, Liverpool river, Medway, Jordan and Shelbourne rivers. All these have large mills, while a number of lesser size also have mills in proportion.

There are a number of large steam mills, the logs for which are driven, the cost of steam power being less and more advantageous than water power, viz., at Sherbrooke, St. Mary's river, St. Margaret's Bay, Gold River and Tusket River, near Yarmouth. There are no mills of any size on the north, or, as it is called, the Gulf shore, the lumber there being sawn with small water power and portable mills. The Bay of Fundy waters have but three water mills of any size, two on River Hebert, and one on the St.

Croix. While there are steam mills of larger size at Shulie, Sand River, Apple River, Eatonville, Newville, near Parrsboro, Stewiacke, and on the Aven river above the town of Windsor, there are a number of medium size mills, steam and water, at Weymouth, Meteghan and Hec-tanooga, at the western end of the province.

The principal markets for the mills from Annapolis around the shore via Yarmouth to,



HON. ALFRED DICKIE.

say, Gold river, is the West Indies and South America, while the Bay of Fundy and the Atlantic coast mills east of Halifax prefer the English market when prices are right, but they are prepared to saw to specifications for the best paying markets.

#### ALFRED DICKIE

THE county of Colchester, N. S., stands foremost in the counties of the province in natural resources, and no part of the county in this respect excels the Stewiacke valley. In this valley, on the bank of the Stewiacke river, and in close proximity to the Halifax terminus of the Intercolonial railway, stands the widely known milling property owned and operated by Hon. Alfred Dickie, of Lower Stewiacke. This mill, of



MR. JOHN A. GILLIS.

Manager for Alfred Dickie at Lower Stewiacke, N.S.

which a view is shown, is a modern and up-to-date establishment in every respect, was built by the present owner in the year 1894, and up to the present date has cut up and manufactured some forty million superficial feet of lumber, averaging yearly about a five months' operation.

The mill proper is a structure 80 x 120 feet, containing, on the upper floor, gang and rotary,

patent double edgers, lath, planer and box machines. The ground floor is occupied chiefly by saw-dust carriers, which convey saw-dust to the furnaces. Here also are found turning lathes and general repair apparatus. Adjoining on the north side is a brick engine and boiler house, containing large tubular boilers, and a one hundred and sixty horse power engine.

One of the strong features of this mill is its almost unique contrivance, consisting of an endless chain six hundred feet in length, which carries all refuse material to a distance where it can be burned with safety. The cutting capacity of the mill is eighty thousand superficial feet of deals per day, and a correspondingly large quantity of laths, palings and shooks. The present season's operations, when completed, will amount to as much as ten million superficial feet of manufactured lumber, of course necessitating an unusually long season's work. Mr. John A. Gillis, whose portrait we present, is manager of the mill.

Here a few words as to the nature and extent of similar industries carried on by Mr. Dickie at Three Fathom Harbor (near Halifax) and Glengarry, in Pictou county, might be given.

Three Fathom Harbor is nicely situated, eighteen miles east of Halifax, with which, of course, it has easy and direct communication by water. The business carried on here consists of an 80 h. p. mill, containing a rotary, edgers, trimmers and lath machines. During the past season this mill has turned out some three million superficial feet of deals and other lumber. It is situated in a cove at the head of the harbor, from which the lumber is loaded on large scows, carrying 150 M. superficial feet each, which in turn are towed to Halifax harbor, where they are discharged into vessels; but arrangements are now being made by which Mr. Dickie hopes to load large vessels at Three Fathom Harbor.



SAW MILL OF ALFRED DICKIE AT LOWER STEWIACKE, N.S.

As to the operations at Glengarry, during the past two seasons Mr. Dickie cut and shipped from that place some eight million superficial feet of spruce and other woods from his portable mills, which wood is carried by rail to Pictou landing, some 18 miles, thence by water to the various ports where markets have been found.

Mr. Dickie recently purchased large interests at Ship Harbor, some 40 miles from Halifax. This property, containing about thirty-five thousand acres of heavily timbered land (principally spruce), was purchased within the last year from Messrs. Hill & French, who carried on lumbering operations in a section of country adjacent. Ship Harbor is considered one of the best ports of shipping in Nova Scotia. This will not seem inconsistent when we say that ships of two thousand

tons capacity can sail ten miles inland, where they can be loaded direct from the mill. It is the intention of Mr. Dickie to erect at Ship Harbor the coming winter a mill equipped with every modern milling appliance and with a capacity of six million superficial feet of manufactured lumber each season. At Tusket, N.S., Mr. Dickie, in conjunction with Mr. Thos. N. McGrath, also owns a valuable mill property, which has been



MR. THOS. N. McGRATH,  
(Dickie & McGrath, Tusket, N.S.)

previously described in this journal. This year they have been cutting largely for the markets of South America, France and the West Indies.

A few words as to the career of Mr. Dickie. He was born at Lower Stewiacke, where he now resides, some 38 years ago, obtained the degree of B.A. at the age of eighteen, and subsequently an M.A. degree. Afterwards he studied abroad, and launched out into the business world, with what success can be gleaned from the above reference to his lumbering operations. He has also been active in public life, having represented

the county of Cumberland in the Dominion parliament and being chosen a member of the Cabinet.

#### A. C. & C. W. ELDERKIN.

THE lumber mills and property at Eatonville were originally owned by the firm of D. R. & C. F. Eaton, who carried on shipbuilding and a general saw-milling and mercantile business up to the year 1884. Mr. D. R. Eaton died in 1887, and some time afterwards the firm was reorganized and the name changed to C. F. & F. R. Eaton, F. R. Eaton being a son of D. R. Eaton. About this time the building of wooden ships ceased, and the firm turned their attention to the manufacture of spruce lumber for export. They had a rotary mill about two and one-half miles up the stream, where the timber and planing

for their vessels was sawn, and a horse railroad connecting the mills with the shipyards. When the change was made, they moved the mill frame to tide water and put a gang into the mill. The power was also increased, the engine now being 250 h.p. The mill was designed specially for sawing deals, being supplied with all the improved machinery necessary for the purpose. The Messrs. Eaton carried on the business up to last year, besides building two vessels for the Greenland trade for McKay & Dix, of New York.

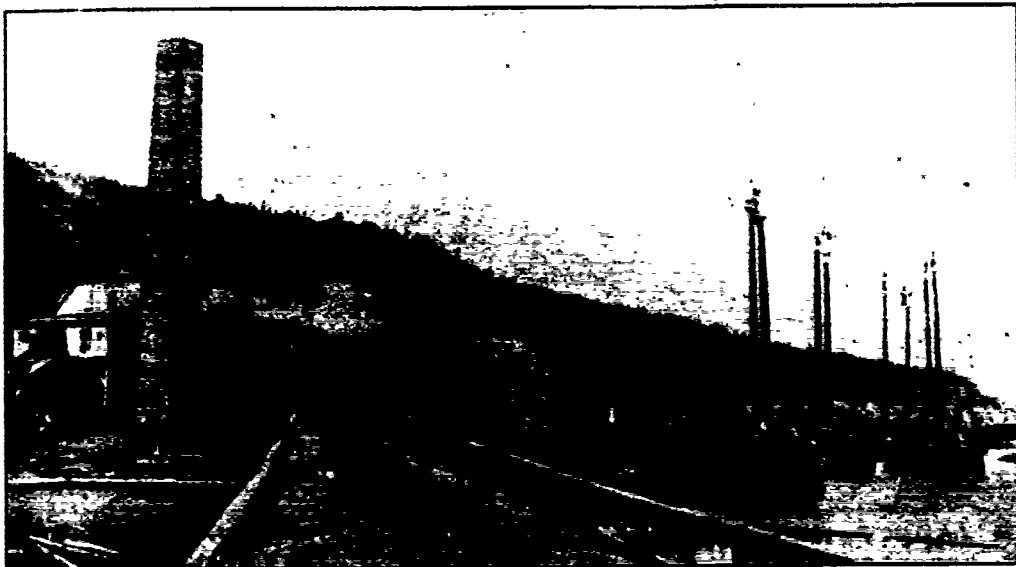
About the first of December last, Messrs. A. C. & C. W. Elderkin, of Advocate Harbor, N.S., purchased the property from Messrs. Eaton just as it stood, and have since operated it. The Messrs. Eaton had begun operations for the winter's logging, and had about two million feet of logs yarded. The purchasers took these, along with the teams, logging appliances and camping outfits—in fact, they just stepped in and continued the operations as outlined by the previous owners, although they did not get out quite as many logs as Messrs. Eaton intended to cut. The firm cut at this mill this season three million feet of deals and two million lath. The deals have been shipped to

and one-half million feet for a long time. The limits are situated on the Chignecto peninsula, the land being strong and the growth of timber rapid. Danger from fire is very slight, as the ground is covered with a mossy growth which is always damp. The timber itself is slow burning, being exposed for a great part of each season to the salt fogs that prevail on the Bay of Fundy; the wood absorbs the salt and becomes partially fireproof.

On account of the situation of the limits, about two miles is the longest haul, and the logs cut at the head of the stream are landed three miles above the mill. There are several driving dams on it, which hold enough water to run the logs to the mill in a few hours. Further down the peninsula the logs are browed along the shore, and when wanted are boomed and towed to the mill. There is a large pond just above the mill, into which logs can be run at high water on each tide, and where they are perfectly safe from any storm. The logs from the head of the stream before referred to also run down into this pond. The capacity of the mill is 60,000 feet of deals per day, but Messrs. Elderkin prefer quality to

of the Intercolonial railway, and on which the cut of this and several of the portable mills is sent to Halifax for shipment.

The mill is water power, furnished by the St. Croix river, the outlet into the Bay of Fundy of a large system of lakes, around which the company have an immense quantity of very fine spruce and pine timber, and on which the logs are taken to the mill. A system of dams gives them an ample supply of water to operate



SAW MILL of A. C. & C. W. ELDERKIN AT EATONVILLE, N.S.

English markets, but they have all their boards yet on their wharf, preferring to hold them rather than sell at the prices prevailing in the United States markets. The firm intend getting out about four million feet the coming winter, and are prepared to saw for the best paying market. They are looking over the South American and West India markets, and will probably test both. Boston and New York have been the best markets for their short lumber and boards, and when business in the United States gets back to its normal condition, it will absorb such goods as heretofore. Vessels of six to eight hundred tons can load directly at the mill wharf, but when they sell to parties shipping to the English markets, the deals are lightered either to West Bay, near Parrsboro, or to Grindstone Island, about ten miles distant, where the largest steamers can take cargo, there being a good depth of water, plenty of sea room, and good anchorage. For South American trade vessels of five to eight hundred tons are the most profitable. These can load at mill.

The timber property of this estate is nearly all spruce, and comprises about twenty thousand acres. By preserving the timber as far as expedient, the supply will stand a cut of about two

quantity. They believe that they can take a smaller quantity of logs and by careful manufacture make quite as much money out of them, allowing nothing to go to waste, and thus conserve their forest area. The firm own a steam mill and general store at Advocate Harbor, and also have a store at Eatonville. They have some good schooners which they built themselves and run in the coasting trade. They are natives of the county of Cumberland, and are very enterprising young men.

#### T. G. McMULLEN & COMPANY.

An account of the lumbering operations of the province without special mention of the firm of T. G. McMullen & Co., whose head office is at Truro, would be incomplete. Mr. McMullen has been prominent in lumbering and milling operations since the early seventies, having built a large rotary mill in Truro in 1873. Logs became scarce there, and he operated a number of portable mills in different parts of Colchester, Hants and Pictou counties. The firm at present probably own the largest quantity of timber lands in the province. Besides several portable mills, they own and operate a modern band saw mill at Hartville, on the line



MR. A. C. ELDERKIN.

the mills during the summer drought. At this mill there is sawn about eight million feet per year, while their total cut runs from twenty to thirty-five million, according to the market demands. The bulk of their lumber is shipped from the port of Halifax, but they also ship a quantity from Pictou. The greater portion of their cut is deals for the English market. This firm also believe in the crosscut saw for felling trees and cutting into logs, and so satisfied are they of the advantages obtained by so doing that

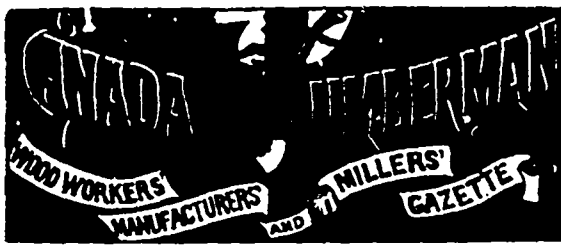


MR. C. W. ELDERKIN.

they stipulate in all contracts with jobbers that the logs must be sawn as far as possible.

#### ONE DOLLAR.

THE above sum represents the yearly subscription price of the CANADA LUMBERMAN, including both weekly and monthly editions, mailed to any address in Canada or the United States. Owing to postal charges, the subscription price to foreign subscribers is two dollars per year. Persons in foreign countries interested in Canadian timber products can invest that sum to no better advantage than by becoming a subscriber. Likewise every mill owner in Canada should read the columns of the CANADA LUMBERMAN. A sample copy will be gladly furnished upon request.



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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 the discussion by others.

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

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. Their correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade 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 clearing the air. Any items of interest are particularly reported, 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 minimum price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for less successive insertions 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 adding one more cog to the wheels of progress.

TO VISITING LUMBERMEN.

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

THIS ISSUE.

THIS number of the CANADA LUMBERMAN is largely representative of the spruce wood trade of Canada, a branch of the lumbering industry which has rapidly grown in importance of late years, and which is common to the provinces of Quebec, New Brunswick and Nova Scotia. We are too prone to regard our white pine forests as by far the most valuable asset of Canada, and to look upon spruce as an inferior class of timber. But we believe that by careful husbanding of our spruce forests we will find that we shall have a possession quite as valuable as that of pine. For interior finish and the finer grade of joinery and cabinet making, spruce will never become popular, its great value being its adaptability for making pulp. In foreign markets, however, spruce lumber is steadily gaining ground, and is replacing Baltic woods.

This special issue of the CANADA LUMBERMAN is designed to diffuse information regarding the spruce forests and saw milling establishments of this country, and more particularly the eastern section thereof.

It is impossible, in the limited space at our

disposal, to publish particulars of the many mills scattered over the three provinces specially represented by this issue. The total number, from the small portable mill used so largely in Nova Scotia to the huge band mill of one hundred thousand feet daily capacity, reaches up into the thousands. To each of these a copy of this issue of THE LUMBERMAN will be forwarded, in order that every lumber manufacturer may, by a perusal of its pages, learn of the advantages to be derived from a first-class trade paper. The subscription price of one dollar covers both the weekly and monthly editions.

The publishers are always gratified to receive contributions from the trade on any subject of current interest. This fact does not appear to be understood to the desired extent. General information, such as proposed improvements, increase of plant, market conditions, etc., is likewise appreciated. The CANADA LUMBERMAN is published in the interests of the Canadian lumber trade as a whole, and to this constituency it confidently appeals for recognition and support proportionate to the service which it is endeavoring to perform.

FOREST PRODUCTS AND THE QUEBEC CONFERENCE.

No question is receiving more attention by the commissioners in session at Quebec than that relating to trade in forest products. This is as expected. The situation is such as to make it impossible that representatives of the Canadian and United States governments could meet to adjust trade difficulties without being forced to consider the situation as to timber. Anticipating this, the Lumbermen's Association of Ontario adopted a resolution at a meeting last August, setting forth their views, and expressing their willingness to submit to the free exportation of logs in return for free entry of lumber into the United States, although some of those present were bitterly opposed to the export of logs under any circumstances. This was the beginning of what will pass into history as one of the most interesting periods in the lumber industry of both countries.

So far as can be gleaned, a settlement as to logs and lumber is no nearer than when the conference opened, and yet we believe that the importance of the question to both countries will demand that some measure of reciprocity be decided upon for presentation to the governments of both countries.

Canada will accept nothing short of free lumber for free logs. If she cannot obtain free lumber, then the manufacturing clause as passed by the Ontario government will continue to exist. In the United States the situation is different. We find one section of the country arrayed against another; one district in favor of free lumber, another opposed to it. The different interests have been very active during the Quebec conference, deputations having addressed the commissioners and vigorous lobbies having been established. The Michigan lumbermen owning Canadian limits are directing their efforts to defeating the act passed by the Ontario government compelling home manufacture. Representations to that end have been forwarded to the government at Washington, thence to the British government, Dominion government, and, finally, to the premier of Ontario. The latter,

however, has announced his decision to adhere to the manufacturing clause, only receiving therefrom on one condition, viz., that the United States shall permit free entry of all grades of Canadian lumber.

Regarding the legal aspect of the case, this was no doubt well thought out and considered by the Ontario cabinet before action was taken, and is founded on the British North American Act. Only a brief review is necessary to show who are responsible for the present difficulties. In the year 1854 there existed a United States import duty of ten dollars per thousand on lumber, and a Canadian export duty of two dollars per thousand on logs. In the fall of that year Canada agreed to remove the export duty in return for a reduction of the lumber duty to one dollar. (By a piece of shabby practice, the McKinley bill read "on white pine only," leaving spruce and red pine still at two dollars.) Then in 1894 lumber was declared free by the Wilson bill, but the Dingley bill of 1897 restored the duty on all kinds of lumber to two dollars. The only course left open to Canada was to return to the export duty, but this was prevented by the placing of a retaliatory clause in the Dingley bill, increasing the import duty on lumber by the amount of the export duty that might be imposed. The Dominion government were in a measure handicapped, and the justice which was due Canadian lumbermen was obtained through the original owners of the timber, the Ontario government.

The Michigan lumbermen are not alone in their desire for more amicable relations in regard to timber. The consumers of the Eastern States are working vigorously for free lumber, and as an important section of the country. Wholesale dealers, even those who were previously in favor of the duty, now find that their trade has been seriously interfered with, owing to being compelled to buy at high prices at western points, and are exerting themselves to secure free lumber.

Reverting to the conference, the acceptance by Canadian lumbermen of a one dollar duty in return for free logs seems to have been eliminated from the possibilities. The stand which they have taken is directly opposed to any form of compromise. They reason in this manner: There is an important market in the Eastern States and along the United States shore of Lake Erie for lumber, much of which will be supplied from timber limits tributary to the Georgian Bay. By cutting off the supply of logs for the Michigan mills, some lumber can be sold even under a two dollar duty. But with Michigan mills getting Canadian logs free of duty, and Canadian lumber being subjected to a duty of one dollar, the Michigan manufacturers would have a great advantage over the manufacturer in Canada. The latter prefer to cut off the log supply to Michigan mills and take their chances under a two dollar duty. Then again, there are many persons in Canada who believe that in return for the free exportation of saw logs and pulp wood, we should be permitted to have unrestricted access to the American market for not only lumber, but all forest products, including paper and paper. Certainly the same argument that applies to lumber and saw logs is equally applicable to pulp and pulp wood. Every year hundreds of thousands of cords of pulp wood are taken to the United States, to build up paper and pulp manufactories there, while a considerable

able duty is charged on a manufactured article. Although at the present time a policy of free trade in spruce, a policy of protection is maintained in the case of other manufactured articles. We have an abundance of spruce, a policy of free trade in spruce, a policy of protection is maintained in the case of other manufactured articles.

Taking the other countries to which we export our lumber, we find conditions quite different from those in Great Britain. Canadian lumber is imported into Great Britain from United States ports, and is looked upon as American lumber. The lesson to be learned from this is that the Dominion government should, at the earliest possible moment, establish direct lines of steamships between these countries and Canada. So long as we are content to allow our exports to stand to the credit of the United States, we cannot expect to increase our trade to any great extent. It is pointed out that from many of these countries return cargoes of goods could be obtained.

of our timber products into the United States, we should at least exclude the importation of United States lumber.

It is not generally believed that hand saws are suitable for cutting hardwoods, the objection being that they are not sufficiently rigid and will not stand up to the strain. We have a few hand saw mills in Ontario, equipped with band saws. On the other hand, the lumber received at this office would lead to the conclusion that band sawn hardwood lumber is coming more into favor. This is a point which might well be considered by persons contemplating the remodeling of their mills or the erection of new ones, and upon which we would be pleased to have an expression of opinion from our readers.

#### SUGGESTIVE OF TRADE POSSIBILITIES.

THE Dominion of Canada is to-day regarded as a vastly more important lumber producing country than she was a few years ago. Her timber products have, through the efforts of enterprising exporters, found their way into importing countries of both hemispheres, where they have successfully encountered competition and become a standard article of import. Great Britain, under a free trade policy, has furnished a market for perhaps nine-tenths of the export to the European continent, and yet her possibilities are by no means exhausted. It is equally true, however, that in other countries there exist markets quite as promising as those of Great Britain, and worthy of the attention of Canadian lumber exporters.

The information published in this number concerning foreign markets is in some respects particularly suggestive, and will repay careful consideration by manufacturers desirous of engaging in the export trade. We will refer briefly to some of the signal features of the reports.

The magnitude of the annual import of wood goods into Great Britain, reaching in value \$88,000,000, of which Canada supplies only \$15,000,000, or about one-sixth of the total, furnishes ground for enquiry as to the possibility of increasing our trade with that country. This, we believe, can be done. The timber supply of the United States will soon become exhausted, so that Norway and Sweden are the only countries which can be looked upon as strong competitors of Canada. Our timber has gradually replaced the Baltic wood for certain purposes, and will no doubt continue to do so. The most promising outlook for the expansion of our trade appears to be in the export of partially manufactured stock. In earlier years a larger quantity of timber was imported in the log; this has steadily given way to deals and boards, and to-day the tendency of the trade is to import the manufactured stock ready for use. The reason is obvious. In importing the timber in the log freight must be paid on much waste material; so with deals and boards which are intended to be re-sawn into smaller sizes. The necessity of cheapening the cost of production will not permit of this expenditure. Note the remarks of a correspondent: "There is really no end to the field which exists for the extension of trade in partially and wholly manufactured specialties in hard and soft wood. The wise manufacturer will not permit these suggestions to pass unnoticed. It is along these lines that we would advise our manufacturers to direct their efforts."

Some mill men without representatives in the British market may feel disposed to ship lumber to be sold on consignment. Frequently this method results unsatisfactorily. It is not only unfair to importers who contract for shipments at a fair price, but often causes a general depression of the market. There are reliable agents to be secured, who will look after the interest of exporters and keep them informed as to the requirements.

A peculiar circumstance is recorded by Mr. Lewis E. Thompson, commercial agent at Santiago, Chile. For some years, he says, box shooks have been imported into Santiago from England, these being made from Canadian spruce. It seems almost incredible that this should be the case, and it certainly calls for investigation and action by Canadian box shook manufacturers.

The claim has been made against Canadian lumber that it is not always carefully manufactured and shipped in such a manner as to meet the requirements of foreign markets. There has, perhaps, been some ground for this complaint in the past, but a decided improvement has taken place in recent years, and it is now possible to obtain in Canada lumber of the best manufacture and highest grade. Foreign importers evince a strong disposition to handle Canadian timber products, a statement that is borne out by advices from well-informed correspondents. By energetic effort on the part of our manufacturers a considerable extension of our trade in wood goods is possible, and will doubtless be witnessed in the next few years.

#### EDITORIAL NOTES.

THE experiments now being made at Ottawa to secure the conversion of sawdust into carbon for the manufacture of calcium carbide are being watched with keen interest by lumbermen. Mr. Emerson, the inventor of the patent, has been engaged on the work for several months, and hopes within a short time to demonstrate the success or otherwise of the scheme. If successful, the thanks of the entire lumbering fraternity will be due Mr. Wm. Edwards, under whose direction the investigations are being carried on.

AN estimate of twenty-five million feet has been made as the amount of lumber that will be imported into Manitoba and the Northwest from the United States this year. This is as against some sixteen million feet last year. The lumber consumption of the Northwest is yearly increasing; farmers are more prosperous, and are spending more money in the erection of buildings. As the country becomes still further populated, even a much greater quantity of lumber will be consumed. So much regarding the importance of the market. Then why should we permit the benefit of these improved conditions to be shared by the United States, which has erected a tariff wall between the two countries so far as lumber is concerned? Until we are allowed free entry

No arrangements seem to have been made as yet which would indicate that Canada intends to make a forestry display at the Paris Exposition of 1900. Surely this opportunity of advertising the timber products of this country is not to be allowed to pass, while every day brings evidence of the necessity of Canadian goods being better known in foreign markets. It is probable that the small space allotted to Canada has discouraged the movement to some extent, more especially in view of the proposal which was discussed a few months ago, and is still advocated by some, to hold a World's Fair in Toronto in 1901. Should this project be carried out, we might expect to witness a forestry display which would eclipse anything hitherto attempted.

WE are frequently in receipt of letters from foreign importers enquiring as to where stocks of certain kinds of lumber, pulp wood or other timber product can be obtained, and in some instances have been enabled to direct our correspondents in the manner desired. This is practical evidence of the increased attention which is now being given to Canada as a lumber exporting country, and in a short time she may be expected to assume a commanding position in this particular. One of the best methods of ascertaining the whereabouts of desired stock is through the medium of the "Wanted and For Sale Department" of the weekly edition of the CANADA LUMBERMAN. This has been found very effective by those who have given it a trial, and will no doubt be patronized to a greater extent as it becomes better known. Advertisers may have their letters addressed to a box at this office, when they will be forwarded by the publishers.

The American Monthly Review of Reviews for October publishes a most interesting series of Indian portraits made by Mr. F. A. Knehart, the photographer of the Trans-Mississippi Exposition at Omaha, in connection with an account of the Indian congress now in session there.

The Great West, an illustrated monthly magazine, published at Winnipeg, of which the initial number has come to hand, should prove a welcome addition to Canadian literature. It presents an inviting appearance, and is a fine example of "the art preservative." The contents are varied, including many articles of merit.

No matter in what part of the Dominion you are situated, an expression of your views on any subject relative to the lumber trade is solicited by the publisher of this journal. No reader should wait for a personal invitation. Assistance thus rendered, as well as suggestions for making this journal more valuable to subscribers, will be much appreciated.

LUMBERING OPERATIONS OF EMILE STEHELIN.

A FEW years ago a progressive capitalist from France, recognizing the advantages of Canada as a field for investment, purchased considerable property in the vicinity of Weymouth, Digby county, Nova Scotia, and decided to establish

better communication between the point of manufacture and the shipping port, he decided to facilitate matters by building a pole railway, which was begun in April 1896, and has steadily been going on to the completion of the distance, as previously stated, is six

no limit to the height to which such piers and abutments can be carried.

The locomotive "Firefly," shown below, is the first one built by the road. It is made stationary boiler and a twenty-horse-power engine, mounted on a truck. The wheels are driven by an intermediate crank wheel. Con-



MILL OF EMILE STEHELIN AT NEW FRANCE, N. S.

a saw milling business. This gentleman was Mr. Emile Stehelin, by means of whose efforts a thriving settlement has been founded at New France, about sixteen miles from Weymouth. At this place Mr. Stehelin built a gang mill, situated on Long Tusk Lake, and driven by water power. It has a capacity of 15,000 feet of lumber per day, and is also provided with the planing, shingle and lath machinery necessary for a complete equipment. An electric light plant is also installed, which furnishes light to his mill and to the village as well. Three miles from New France, at Doyle Lake, Mr. Stehelin erected a portable mill of the same capacity as the one above referred to.

The lumber cut at these mills during the first few years was consumed in the erection of houses, barns, and other necessary accommodation, but when these were completed, attention was given to the export trade. Now Mr. Stehelin manufactures annually one million feet for the South American market and 500,000 feet of deals for the English market. He owns about

France; Doyle Lake, where there is one sawmill; Riverdale, where there are two sawmills; Woodville, where there are three sawmills; Corberrie, a thriving little village; and Weymouth, on the coast. The construction of this railway is so unique that we give some particulars and illustrations herewith.

On level ground the construction of a pole railway is a very easy matter, but in this part of Nova Scotia the country is hilly and there are a great many swampy stretches, which made construction more expensive than would often be the case. The cost of the whole line, including equipment in this case, was about \$3,000 per mile. This included grades of three to six per cent., a number of bridges and several embank-

ments of from ten to fifteen feet high. On level ground the construction consists in laying down sleepers ten feet long and three to four feet apart, on which is laid a spruce rail, sawn as shown in Fig. 3. The rails are twenty to thirty-five feet long, and

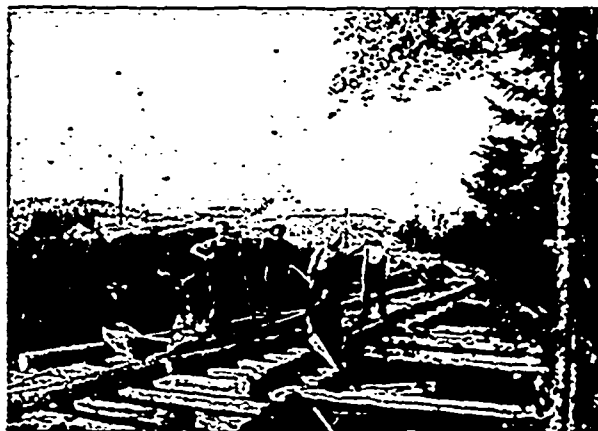
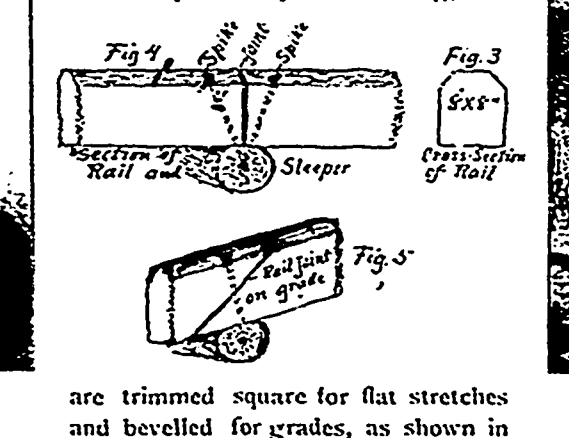


FIG. 2—CONSTRUCTION OF POLE RAILWAY.

are trimmed square for flat stretches and bevelled for grades, as shown in Figs. 4 and 5. The joints are made and the rails secured by twelve-inch wharf spikes.



The method followed in building bridges and embankments is to lay a series of timber floors one upon another, each at right angles from the last, till the required height of the pier of embankment is obtained. With careful work and exact cutting of the timber, there is practically

considerable difficulty was experienced in adjusting the parts of this engine, but it was finally got to run very satisfactorily, and is used for hauling logs to the saw mills.

The "Maria Theresa" is an entirely new locomotive, built expressly for the line by a Nova Scotia firm. It has four cylinders of twenty horse-power each, driving two trucks of four wheels each.

In operating a line of this kind, one of the greatest difficulties to be contended with is the amount of friction developed by the wheels, which do not run on the wooden rails with at all the same ease as on steel or iron. The locomotive should, therefore, be made as light as is consistent with the power to be developed, the friction of the wheels being sufficient to compensate for the lack of weight in the locomotive. It is to obviate as much of this friction as possible that the upper surface of the rail is cut in three faces. At present only six miles per hour is obtained regularly, but Mr. Stehelin hopes with some modification of the locomotive wheels to

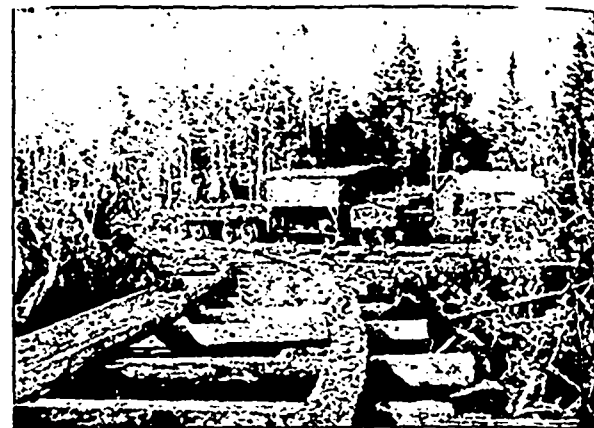


FIG. 6—POLE RAILWAY—THE LOCOMOTIVE "FIREFLY."



FIG. 1—POLE RAILWAY IN OPERATION.

ten thousand acres of timber land, chiefly spruce. It is not alone in the direction of building saw mills that Mr. Stehelin has shown progress. Having his first stock of lumber ready for market in the year 1896, he discovered that, owing to poor roads, it would be very expensive and laborious to get it to Weymouth, the nearest shipping point. Realizing the necessity of

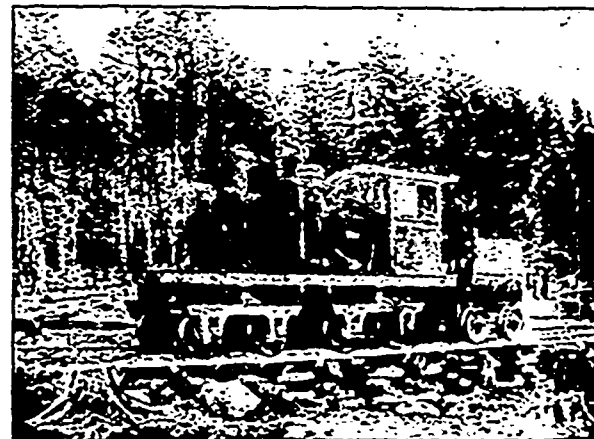


FIG. 7—POLE RAILWAY—LOCOMOTIVE "MARIA THERESA."

obtain higher speeds. The engines are wood burning, but it is proposed to substitute coal, which can be had very cheaply at Weymouth. The freight cars used on the pole railway are twenty feet long, on two trucks with four wheels each; the passenger car is twenty feet long, and is covered and closed; there is also one small passenger car to carry four persons.

## THE NEWS.

—C. McKay has opened a lumber yard at Altona, Man.

—Finch Bros. have started a saw mill at Kimberley, B.C.

—H. Brett has established a lumber yard at Lumsden, Assa.

—Dow & Curry are opening a lumber yard at Pilot Mound, Man.

—Mr. H. J. Greyell, Enderby, B.C., has secured a patent for a cant hook.

—Robert Stewart, of Guelph, Ont., is building an addition to his planing mill.

—The dissolution is announced of Leonard & Morin, lumber dealers, Gauthier, Que.

—D. Miller contemplates building a saw mill and stove factory at Wasylago, Ont.

—Vigars & Co., lumber manufacturers, Port Arthur, Ont., have established an agency in Winnipeg.

—C. T. White is about to rebuild his mill at Apple River, N.S., which was destroyed by fire last spring.

—The E. & N. Railway Company are now locating a line of railway near Chemainus, B.C., to be used for logging purposes.

—The lumber yards of King Bros., Pabos, Que., which were recently consumed by fire, were insured to the extent of \$53,000.

—Machinery is being purchased by R. J. Wilson, of Fort Frances, Ont., for a saw mill and flour mill at Big Forks, Rainy River.

—An exhibition of log rolling was one of the attractions at the Ottawa exhibition, some of Mayor Bingham's men being the performers.

—The Wm. Hamilton Mfg. Co., of Peterboro', Ont., propose to extend their works, and have asked for a bonus of \$40,000 from the town.

—The firm of J. Biette & Company has decided to remove from Chesley to Tara, where they will manufacture cheese boxes, apple barrels, butter firkins, etc.

—Mr. T. S. Sims has purchased the Hayden mill property at Hardingville, N.B., and will at once install machinery for the manufacture of brush and broom handles.

—The Columbia River Lumber Co., Beaver, B.C., have decided to put in a steam plant in place of the present water power, the latter having resulted in a short milling season.

—H. W. Richards, a former resident of Brockville, Ont., is dead at Los Angeles, Cal., aged forty years. He was a successful lumber merchant until failing health compelled him to retire.

—Peter Gennelle & Co.'s new mill near Robson, B.C., has started up. Its capacity is 100,000 feet every 24 hours, and some 50 men will be employed, besides several logging gangs already at work.

—A large circular saw burst in the Hastings mill at Vancouver, B.C., recently. It flew into numerous pieces; 50 men were close by, but no one was hurt, not even the sawyer standing next to the saw.

—The Pigeon River Improvement, Slide & Boom Company has been organized, to carry out improvements on the Pigeon River, in Algoma, in connection with the lumbering operations of Alger, Smith & Co.

—J. O. Bennett & Son, of Bishop's Crossing, Que., are preparing to build a new office and make additions to their saw and planing mill. They intend putting in a larger engine and machinery for dressing pulpwood.

—Messrs. Galbraith, of Tara, are about to commence the construction of a new saw mill near Parry Sound, Ont., to have a capacity of 200,000 feet per day. Grindley Bros. have commenced the construction of a saw mill on Otter Lake, near that town.

—Incorporation has been granted to the North Shore Timber Co., with a capital of \$60,000. The promoters are: Paul Webster, W. Vangl, O. L. Webber and A. K. Kiefer, of Detroit, and R. A. Hazlewood and James Whalen, of Port Arthur.

—The Portage Lumber Company have introduced what is believed to be the first electric car used in saw milling operations in Canada. This car will convey the lumber from the saw mill to the sash and door factory, and is expected to do the work of 15 horses.

—The necessity of the Royal City Mills Company, New Westminster, B.C., was displayed in connection with the recent fire there, by announcing that all who wished might

have lumber, taking their own time to pay for it; besides this they opened a free eating house for the famishing citizens.

—Incorporation has been granted to the Canadian Yukon Lumber Company, of Montreal, composed of R. W. Smith, W. M. Ramsay, T. G. Roddick, E. F. Hand and Henry Bulmer. The company will carry on a lumbering and pulp business, and has a capital of \$100,000.

—J. E. Murphy, of Hepworth Station, Ont., writing to the Barrel & Box, states that he has cut 500,000 staves this season, which have been sold at satisfactory prices. He is now turning out 1,000 sets per day of kiln dried heading. He is of the opinion that there is an opening on the Georgian Bay for a good box shoo factory.

—It is understood to be the intention of the Hastings Saw Mill Co., of Vancouver, B.C., to erect a large saw mill at Village Bay, in that province, where they have a timber supply for ten years. This company recently completed a large flume over 600 yards in length, in the construction of which 2,000,000 feet of lumber was used.

—The Maple Flooring Manufacturers' Association of Chicago have issued a neat and attractive brochure, the object of which is to set forth the virtues and comparatively low cost of maple flooring. The booklet contains rules for grading maple flooring, and is compiled by the secretary, Mr. John L. Williams, 334 Dearborn street, Chicago.

—The Standard Chemical Co. of Canada, which has taken over the chemical works plant of the Rathbun Co. at Deseronto, Ont., are preparing to extend the works. The large brick kilns used for carbonizing the wood will be supplemented by 40 iron retorts. The company expect to manufacture wood alcohol, acetic acid, chloroform, Paris green, and other products.

—Judge Wilson has given judgment against Alex. Crawford and George Phinnimore for the sum of \$80.23. The claim was the result of stream driving operations on the Tobique river, the interested lumbermen being James McNair, Hilliard Bros., R. A. Estey, Senator Baird, Adam Beveridge and Hale & Murchie. The defendants were sub-contractors for the Tobique Driving Co.

—Mr. E. F. Stephenson, crown timber agent of Winnipeg, Man., returned recently from a visit to the timber limits situated in the Pine Creek district. He found that fires had done great damage to the reserve, and will recommend the department to take prompt action to preserve the growth in order to make the reserve a permanent one. The timber is chiefly spruce, tamarac and poplar.

—The forests in Sweden are threatened by new insects called nuns, which entirely destroy the trees. According to an official report these insects have ruined 600 acres of excellent forest in the neighborhood of Noorkoping, while all forests which have been invaded by the nuns must be cut down. The insects attack every tree in the forest, but whitewood seems to suffer more than the yellow pine.

—The Nova Scotia Lumber Co., of Sherbrooke, N.S., have completed one of the best gang and rotary saw mills in the Dominion. It is fitted with modern improvements, including saw-dust, bark and refuse conveyors. The conveyor carries the waste wood 400 feet from the mill, where it is consumed by fire. The gang saw has a capacity of 100,000 feet per day, and the rotary of from 25,000 to 30,000 feet per day. Between 80 and 90 men are employed.

—Arrangements have been made for the holding of a South African expedition at Grahamstown, South Africa, commencing December 15th next. The Department of Trade and Commerce has made arrangements for the free transportation from Canada to Cape Town of goods intended to be exhibited, and no duty will be charged on same. The Canadian government will make an exhibit, which is being looked after by Mr. Thomas Moffat, 16 Church street, Cape Town.

—The saw mill of Powers & Lequime at Midway, B.C., was destroyed by fire last month. The mill was in charge of Mr. William Powers, one of the partners, who has met with many business reversals of late. For three successive years floods have carried away his logs, notwithstanding that great precaution was taken to guard against such a contingency. In June last he lost 100,000 feet of logs by fire. We are pleased to learn that there is a probability of the mill being rebuilt.

## CASUALTIES.

Narcisse Larocque, of Hull, was seriously injured in McGuire's limits at Whitney, Ont., by a tree falling upon him.

—Samuel Dell, a young man working in Welch's shingle mill at Foreston, N.B., had his head completely severed from his body by falling on a circular saw.

—Fred. Porter met with a painful accident in Kirk's mill at Spencer's Island, N.B., the other day. His hand got caught

in a belt and was carried into the cog wheels, by which the hand and arm were ground to a pulp.

—Three men, named Joseph Legree, Charles Quesnelle and J. B. Sabourin, were drowned at the mouth of the Rouge river, while attempting to cross the swift current in a small boat. The men were engaged in lumbering operations.

## PERSONAL.

Mr. Podmore, of the timber firm of Sieveking, Podmore & Co., London, Eng., recently paid a business trip to Canada.

Mr. James Innes, secretary of the Sutherland, Innes Co., Chatham, Ont., returned a short time ago from a two months' trip to Europe.

Mr. Sutherland, of the Crown timber office, Winnipeg, has been removed to Yorkton, N.W.T., where he becomes Dominion Land Agent for that district.

Mr. J. A. Graham, assistant timber and tie inspector of the C. P. R., O. & L. division, has resigned, to accept a position as manager of a Kentucky lumber firm.

Hon. Arthur Hill, of the St. Anthony Lumber Co., Whitney, Ont., and the Arthur Hill Co., Midland, Ont., returned a fortnight ago from a six months' trip to the Pacific coast.

The marriage was celebrated last month, in St. Mathias' church, Westmount, of Miss Mabel Hall Ward, fifth daughter of Hon. J. K. Ward, of Montreal, and Mr. Gerald Aylmer, of the Bank of Montreal.

## TRADE NOTES.

The Victoria Foundry Co., of Ottawa, Ont., is building six match-making machines for Merritt & Co., of St. John, N.B.

The Waterous Co., of Brantford, had on view at the Quebec exhibition a 20 h.p. portable engine, running a small saw frame and carriage, cutting logs from 9 to 20 feet in length. In the machinery building they showed a planer, shingle machine and stationary engine.

The attention of Canadian lumber exporters desirous of obtaining a representative in Spain is directed to the advertisement in this issue of Mr. J. Carreras Ferrer, of Barcelona. Mr. Ferrer believes that a market could be found in that country for Canadian lumber, especially spruce, which is used very largely for box making. He offers to furnish first-class references to exporting firms.

At the recent Quebec exhibition an attractive display of their various manufactures was made by the well-known firm of Carrier, Laine & Co., of Levis, Que. In the machinery hall there were shown an automatic compound horizontal engine, developing 60 horse power, which is claimed to be the most perfect engine on the market. Besides other lines of engines and steam pumps, there was exhibited a complete line of gang saws, shingle machines, etc.

The new pork packing establishment of the Park-Blackwell Co., Limited, Toronto, is nearing completion. The building is a commodious structure of four stories, and is being equipped with latest up-to-date machinery and appliances, and is situated conveniently to the hay and cattle markets. The company anticipate requiring about three thousand hogs and one hundred head of cattle weekly. This enterprising company contemplate entering the export trade, in addition to giving attention to their large and growing ham trade. We draw attention to their advertisement, which appears in this month's issue of the CANADA LUMBERMAN.

The Dodge Manfg. Co. of Toronto, Limited, whose advertisement appears in our pages this month, have been granted a charter, and have taken over the business of the Dodge Wood Split Pulley Company. The Dodge Manfg. Co. will continue to manufacture the celebrated Dodge wood split pulley, and will also carry on a general engineering, foundry and machine business, making a specialty of power transmission machinery, such as shafting and hanger equipment, jack shafts, floor stands, friction clutch pulleys and couplings, rope driving, grain handling machinery, etc. The Dodge Company have been fortunate in securing a very able mechanical engineer to take charge of their works, and being especially well equipped, are in the best possible position to get work out quickly. Plans and information on all kinds of special work will always be cheerfully submitted. A 270 page handsomely illustrated catalogue is mailed free by the company on application.



# Foreign Markets for Canadian Timber Products

## GREAT BRITAIN

THE United Kingdom of Great Britain and Ireland is the most extensive timber importing country in the world. Possessing no forest wealth of any account, her many large manufactories using wood as their raw material are dependent almost exclusively upon importations from foreign countries. The quantity of wood goods imported annually by Great Britain is enormous. For the year ending December 31st, 1897, there were received at the various ports 9,845,988 loads of hewn and sawn timber. A load as used in England is equal to 600 feet board measure, making a total import for the United Kingdom in 1897 of 5,907,592,800 feet board measure. Placing the average value at \$15 per thousand feet, this represents an annual expenditure in money of over \$88,000,000. It should be stated, however, that in that year the market was overstocked, and therefore the average import would be slightly below the above figures.

We give below the quantity of timber received in 1897 at some of the leading ports, according to their respective importance:

	Loads.
London, Eng.....	2,038,863
Cardiff, Eng.....	889,703
Liverpool, Eng.....	812,036
Hull, Eng.....	808,684
West Hartlepool, Eng.....	499,652
Newport, Eng.....	286,548
Glasgow, Scot.....	232,262
Grimsby, Eng.....	396,377
Gloucester, Eng.....	221,492
Grangemouth, Eng.....	194,224
Belfast, Ireland.....	192,928
Manchester, Eng.....	186,424
Sunderland, Eng.....	167,954
Bristol, Eng.....	167,352
Leith, Scotland.....	155,445
Borrowstounness, Scot.....	131,054
Fleetwood, Eng.....	125,135
Greenock, Scot.....	128,508
South Shields, Eng.....	116,671
Dublin, Ireland.....	111,920
Plymouth, Eng.....	100,554

It has been estimated that the Dominion of Canada supplies Great Britain with timber products, including manufactures of wood, such as doors, box shooks, heading, etc., to the value of \$15,000,000. Perhaps two-thirds of this amount is represented by pine and spruce deals. In late years our manufacturers have increased their shipments of lumber to Great Britain considerably, but from the above figures there would appear to be an opening for further extending our trade. In the lines most commonly imported, such as deals, planks, and square and waney timber, we believe the prospects for business have been fairly well investigated; but there is undoubtedly a wide market yet undeveloped by Canadian lumbermen for manufactures of wood and specialties. The following letters, bearing upon the import and requirements of some of the principal centres, point in this direction:

DEAR SIR,—Regarding the best methods by which lumber manufacturers not already in the trade may bring their goods to the notice of buyers here, I would state that this can best be done either through the medium of the many old established merchants in the trade, by applying to agents or brokers on this side, or by advertising in special trade papers. There seems to be a consensus of opinion that the Canadian producer should place himself entirely in the hands of a single broker or agent, who would make it his business to watch his interests and obtain the best prices, while keeping him advised as to quality, style of preparation required for this market, etc.

It is not an easy matter to say what are the standard sizes of hardwoods in steady demand, as the demand varies from time to time and the sizes depend to a great extent upon the particular purpose for which the wood may be required. Oak, ash, black walnut, elm, maple, birch and beech are some of the hardwoods most in demand here.

There is really no end to the field which exists for the extension of trade in partially and wholly manufactured specialties in hard and soft wood. It is purely a question of price and quality, as competition is very keen, and for articles such as broom and axe handles, knife boards, spokes, carriage wood, car building materials, furniture, etc., low prices have to be accepted to secure a fair portion of the trade. The demand is very large, and Americans have obtained a hold on the market which renders competition very severe. For the most part the trade is done by merchants who import in large quantities by contract.

The Canadian wood pulp business is already established on a firm basis, and there is room for an indefinite extension of this branch of trade in both the mechanical and chemical varieties. The following are the views of a gentleman well acquainted with the lumber and pulp trade in all its bearings: "The Canadian wood pulp industry has, in our opinion, a great future. The pulp is regarded by British paper makers as in several respects superior to Scandinavian, and makes stronger and tougher paper. There will always be a good demand for it in London and Manchester, even at a trifle higher price per ton than Scandinavian mechanical. In addition to the several schemes for erecting wood pulp mills in Canada and Nova Scotia which are being carried into effect by means of British capital, our Mr. Phillips has heard quite recently that two of the leading paper-making concerns in this country are on the point of dispatching representatives to Canada to gather information with a view to the purchase of land and the establishment of mills to supply pulp for their requirements. No doubt is entertained in the best informed paper trade circles here that the Canadian wood pulp industry is capable of vast development."

J. G. COLMER,  
Secretary High Commissioner.

London, England.

DEAR SIR,—There is an increasing demand throughout the United Kingdom for all kinds of Canadian hard and soft woods, and our chief trouble has been to keep our customers supplied. We have had large consignments during this year from our own limits in Canada, but are still very much behind with some of our orders. We are desirous of communicating with reliable firms who are prepared to fill export bills according to the required specifications of this country's markets. We can give orders for almost every kind of wood that grows in a Canadian forest, furnish prompt returns for shipments, and supply undeniable references on your side as well as on this. We have a steady demand for oak, ash, rock elm, soft elm, maple, basswood, birch, beech, chestnut, doors, etc., and are prepared to place large contracts with reliable operators who can ship any of the above mentioned woods either in lumber or cut to specification. Our inspectors in Canada are thoroughly conversant with the requirements of this country and would gladly furnish all particulars as to the culling, etc., required for this market. Last year we handled from 200 to 250 large consignments of Canadian woods, and are doing our utmost to further this trade with Canada. We have received recently a large enquiry for willow. Do you know of any firm who handles this wood?

We cannot see why the Canadians should not capture the paper market of England. It is an undeniable fact that the Americans are taking away the trade of the paper manufacturers in this country. It is also a well known fact that American paper is made from Canadian pulpwood. This trade belongs to the Canadians, and if they don't secure it they have themselves to blame, as they have the raw material and as good natural facilities for manufacturing as the Americans, and quite as good freight rates to this country. The writer remembers, about two years ago, while travelling on the north shore of Lake Superior, having seen hundreds of thousands of loads of spruce destined for the American paper mills, and he believes the same applies to all parts of Canada,

as we ourselves have recently received tempting offers from American paper manufacturers for the pulpwood on our Canadian limits. The writer believes plenty of money could be raised in England for the industry of paper manufacturing in Canada should a proper prospectus be shown.

THE M. TIMBER COMPANY OF CANADA.

London, England.

DEAR SIR,—Before enumerating the various descriptions of timber which find here a ready demand, we beg to point out that no other industrial centre in the United Kingdom presents a more desirable outlet for the products of those who are interested in the timber trade and engaged in its manufacture in the Dominion of Canada. As the chief seat of the shipbuilding industry in this country, our city does a large trade in every kind of wood manufactured and exported from Canada. The imports to the Clyde are large and increasing, and as far as present appearances indicate are likely to continue doing so. The existing demand for nearly all Canadian woods is very good; for some it is even brisk. We believe, therefore, that there is great scope in this market for a large development in business in Canadian timber, and for the information of your lumber manufacturers we beg to enclose a memorandum of the woods which are most extensively used here.

WANey BOARDWOOD.—This timber is in constant demand by shipbuilders and house builders, and is regulated in price by size and quality. Work at present is plentiful in each of these departments of trade, with every prospect of being maintained, and as stocks are lighter than they were at the same period a year ago, our anticipations are most likely to be realized.

SQUARE WHITE PINE.—The enquiry for this timber is only moderate. Like the boardwood, the better quality of it is used mostly for finishing purposes in houses and ships, and it always commands a good price.

RED PINE.—At one time a considerable quantity of this wood went into consumption for joisting, etc., but it seems to be out of favor now, and superseded by pitch pine. Still a fair consumption takes place annually.

ELM.—Elm is largely used by shipbuilders, and the stock on hand not being excessive, rather, indeed, under what it was at the same time last year, points to the continuance of a fair demand, especially for large wood.

OAK LOGS AND PLANKS.—The former are used in ship building and railway and wagon building, and the planks chiefly for the latter industry, which is a very important one in this vicinity, and large quantities of various specifications are taken up.

ASH.—This is mostly used by cabinet makers in the manufacture of bedroom furniture, and also for drawer wood. The demand is always more or less active.

BIRCH goes largely into chair making, and there is a better demand than existed some few months ago both for logs and planks, boards and squares.

WHITE PINE DEALS.—There is always a large demand for these in the different sizes and grades of quality. At the beginning of the year, in consequence of large stocks, prices ruled low, but the present very brisk condition of our principal industries has greatly improved matters. First quality are used to a large extent for finishing purposes, such as panelling in house doors, ships, etc., and also for pattern wood for engineers. Second quality, though in fair demand, is not so much used as first or thirds, and the imports are therefore on a smaller scale. In third quality deals there is a very large consumption amongst joiners, boat builders, packing box makers, etc., and good sound planks can always be sold at their value. Fourth quality deals, both broad and narrow, are mostly used by packing box makers, but the low price, as compared with thirds, makes them in demand also by the smaller class of furniture makers.

WHITE PINE SIDINGS.—Large quantities of these are imported to this market. Since their introduction here in recent years there has been a great demand for them,

and as they are in favor with consumers the demand is constantly growing.

**SPRUCE DEALS.**—Large stocks were held at the close of last year, but these have been greatly reduced through the improvement in trade during the interval, and the demand is now very good.

CANT & KEMP.

Glasgow, Scotland.

Another correspondent furnishes the following information regarding the British market:

"The timber business of Canada with this country is not only a large one, but as you must be aware, one of the oldest trades carried on between them. All the existing demands for lumber are anticipated in the fall and winter. During these months there is hardly a shipping house from Ottawa to Halifax that is not represented in this country either personally or by their agents. From waney board pine timber down to manufactured goods, such as doors and other descriptions of joinery, all kinds of lumber are pressed upon the markets, often to an unwarrantable extent. Not content with making their contracts for the season's shipment, we find, as a general rule, that having filled up all their forward bills, shippers then proceed to unload themselves in the autumn of their unsold stocks by consigning them upon the large markets, such as London, Liverpool, Glasgow, Cardiff, etc., where they are sold for what they will bring. This is not an isolated example of Canadian shippers' methods—it has occurred over and over again, especially during the past few years. One result of this is that the large importers here are inclined to deal very warily in entering into engagements ahead lest they be swamped with cheap consignments. That this was their policy last winter was best shown by the fact that shippers of all kinds of lumber from Montreal and Quebec returned home this summer with the most meagre orders they have had for many a year. These remarks apply with equal, even if not with greater, force to the spruce deal shippers of New Brunswick and Nova Scotia. During the past year their action in this direction caused a fall in the market of about 25s per St. Petersburg standard. Having filled all the orders they could secure at £7 c.i.f., the price ruling in January, 1897, they swamped not only the large markets of this country, such as mentioned above, but actually sent cargoes into small ports in Ireland to be sold against the goods of their own contractors. The result of this is self-evident; under the pressure to sell these consignments prices gave way and importers had either to sell out their stocks at competing prices or hold them to look at. Very few are in a financial position strong enough to do the latter, hence losses and in some cases absolute failure."

THE WEST INDIA ISLANDS

The West India Islands, having an area of 94,000 square miles and a population of several millions, is each year receiving greater attention from Canadian lumber manufacturers. The exports are chiefly from New Brunswick and Nova Scotia. Particulars of the requirements of a number of the islands are given herewith, and will repay careful perusal:

BARBADOS.

Although the houses, sugar factories and many other buildings in Barbados are built of stone and brick, covered with iron, slate and shingles, yet a fair quantity of timber is consumed. The following figures show the total import of white pine, spruce, hemlock, birch and beech for three years, together with the quantity supplied by Canada:

	1895.	1896.	1897.
Total Import...	3,622,547 ft.	5,898,722 ft.	8,129,225 ft.
From Canada..	3,383,195 ft.	5,230,184 ft.	6,815,577 ft.

From the above it will be seen that this market is yearly growing in importance. There is used a large quantity in the making of hogsheads and puncheons, in which the sole product of the island, sugar, is shipped. The consumption is therefore dependent in a great measure on the crop, as from 1½ to 2 million feet, principally spruce, is used in this way.

White pine is used throughout the year, and imported in cargoes of 150,000 to 200,000 feet. The local inspection makes three qualities, shippers, refuse and second quality. The first named consists of boards of 10 feet contents and upwards without sap, of not less than 8

inches wide. Refuse is what is culled from the shippers as not being quite up to that grade, and may contain boards of nine feet contents without sap, or boards of 10 feet contents and upwards with sap, but the sap must not extend across the board, that is, must leave six inches of heart lumber throughout the entire length of the board. Second quality, so-called, is inferior to refuse, and consists of boards of 8 feet contents and under, or boards of larger contents in which the sap does not leave six inches of heart lumber, or has streaks of rot, but in which the rot has not eaten into the board. An allowance of 5 per cent. for splits on shippers is customary. Refuse usually brings \$3 per thousand less than shippers, and second quality from \$3 to \$4 less than refuse. Very little plank is required, not more than 5% of cargo, and it must be of good quality.

Spruce is principally used from February to June, during the crop season, and is imported in cargoes of 150 M to 200 M. There are only two grades, merchantable and second quality. No allowance is made for refuse; only boards of 6 in. and under, and very much shivered, are thrown out, and bring about \$3 per M less. No allowance is made for splits. Scantling is used in very few sizes, such as 2 x 3, 2 x 5, 2 x 6, and in the following proportion, say 25 M 2 x 3, 5 M 2 x 5 and 5 M 2 x 6.

Shingles: Cedar Laying sawn, 4 bundles to 1 M, are largely used, and principally No. 1 extra Spruce Laying sawn in small quantities are saleable. Long Cedar Split are saleable; they must be of good quality, 100 to the bundle, and about 20 in. long.

The terms of sale are 3 months' credit to the local buyer. Sales being rendered on completion of delivery are subject to 1½ per cent. discount and 5 per cent. commission, which is really 2½ per cent. selling and 2½ per cent. guarantee, and a small charge of about 15 cents for delivering. The duty on white pine and spruce lumber is \$1.20 per thousand feet. Shipments should be made whenever possible by sailers instead of steamers, for convenience of landing, and cargoes should contain about one-third first quality.

TRINIDAD.

This colony is fairly well supplied with hardwoods of its own growth, supplemented by some imports from the near coast of Venezuela and British Guiana, which amounted in 1897 to 76,825 superficial feet only. Formerly, when the sugar crop was shipped in hogsheads, there was a large importation of cooperage materials. Now hogsheads have been displaced by bags, so that for last year imports were reduced to only 113,000 white oak staves, 1856 bundles shooks and 53,400 wood hoops. Shingles were also largely imported formerly, but last year were reduced to 63,500 pieces, their use now being displaced by galvanized iron. The importation of lumber is therefore practically limited to pitch pine, white pine and spruce, coming from the United States and Canada. The total imports of the three kinds in 1897 were 11,488,375 superficial feet. Of this 10,402,101 came from the United States and only 1,086,274 direct from Canada. The consumption of each kind is estimated to be about as follows: Pitch pine, 30%; white pine, 55%; spruce, 15%.

The description of lumber received from Canadian ports is what is known as ordinary shipping boards and planks, 8 inches wide and 2 inches thick. Assortments should not include more than 10% plank. The lumber usually measures from 10 ft. to 22 ft. superficial for board, and of course double for plank. An average of 14 ft. contents for boards is considered good. More than 1 inch of sap on the pieces, or red rot, however little, makes the lumber refuse, and splits of more than three running feet, broken lumber, whilst sizes under 10 ft. superficial for boards, and 20 ft. for planks, are also rejected. The width of the lumber should be from 7 inches up to 15 and 16, or even 18 inches for ordinary quality, but dimensions such as obtain in the lumber received from the United States, say 12 ft. lengths, by 10 and 12 inches wide, will always command a preference with buyers and bring higher prices, as these shipments are always sized and run very regular in length and width, as above.

An allowance of 5% for splits is customary, but in some instances is waived by purchasers. Ordinary sales are made subject to allowance for split. The contents of each board or plank should be legibly marked at one end of the piece, in colored pencil or chalk. Any piece less than 7 inches wide, or under 10 ft. contents board and 20 ft. plank, are considered refuse and rejected as

such. The customary difference between good merchantable lumber and refuse is from \$4 to \$5 per M ft.

The import duty on lumber into Trinidad is \$2 per M ft., irrespective of quality or whence imported. The proportion of white pine used in Trinidad in comparison with spruce is fully 3 to 1. The average value of Canadian lumber is \$18 to \$19 per M for merchantable white pine, and \$15 to \$16 for spruce.

Much lumber the product of Canadian mills is shipped through United States ports and classed as American lumber. It can usually be obtained cheaper than by direct shipments. This is explained by the difference in freight. The United States have the practical monopoly of the supply of breadstuffs to Trinidad, and the vessels taking flour, etc., carry deck loads of lumber at cheap rates. Thus the one trade facilitates the other. There does not seem to be any good reason, however, why our lumber should not be shipped direct.

JAMAICA.

Nearly nine-tenths of the lumber used in Jamaica is pitch pine from the United States. The total imports for the year ending March 31st, 1898, as furnished by the Collector-General at Kingston, were as follows:

Whence Imported.	Pitch Pine. Feet.	White Pine. Feet.	Cypress Shingles. No.	Chips and other Sorts. No.
United Kingdom...	176	.....	.....	.....
U. S. America....	6,740,947	2,516,876	3,444,319	93,675
Canada.....	13,486	230,031	.....	144,200
British East Indies	150	.....	.....	.....
Total .....	6,754,759	2,746,907	3,444,319	237,875

These figures show the small quantity supplied by Canada, and the possibilities of that market for our manufacturers and exporters. Concerning the Jamaica market a correspondent says: "A small proportion of white pine only is used. This comes from New York, but I think it is manufactured in Canada. A very small proportion comes from Nova Scotia, also some spruce, but the quality of the wood that comes from New York is far superior to that which comes from Nova Scotia, the former being all 12" wide, 12, 14 and 16 feet long, while the latter runs from 5" to 16" in width and 10 to 30 feet in length. Seven or eight years ago as much white pine was sold as pitch pine, but the drop in the price of pitch pine, while the price of white pine remained about the same, has no doubt caused the sale of the one to increase while the other decreased. I have often wondered why it is that Canadian manufactured lumber can be sent here through New York commission houses at far lower rates than it is possible to get it direct; in fact, it is almost impossible to get the same description of boards direct from Canada, although they are manufactured there. This is a matter that should be looked into."

ST. LUCIA.

The quality of lumber used on this island is all Canadian white pine of 1 and 2 inches by 12 inches and upwards. For some years past it has been found more profitable to import the lumber from New York instead of the Maritime provinces, on account of the cheap freight by steamers from that city. Spruce and hemlock are not used there, and the only other kind of lumber imported is yellow pine from the Southern States. The yearly quantity of both qualities imported amounts to about one and one-half million feet.

Regarding this market, Mr. Sainval Coipel, of St. Pierre, writes: "White pine lumber is imported exclusively from New York, in boards and planks of an average of 16 feet for the former and 32 feet for the latter, their respective thickness being of 1 and 2 inches, and the width varying between 10 and 14 inches. The lumber is of pretty fair quality, not very knotty and almost free of sap. Being myself engaged in the trade as a wholesale dealer, and having very good connections with several New Brunswick firms, I have tried to secure a share of the business for my friends, but to my great regret, they have never been able to send the right article; it seems as though they cannot get boards of suitable widths. Otherwise, I have not the least doubt that they could compete successfully with the New York shippers. I would, therefore, be glad to place a trial order with some good reliable firm. For spruce there is no demand with us. This description of lumber was used mostly for heading, when our planters were manufacturing Muscovada sugar; now that they make white crystals only,

they require a special kind of wood for their packages, and spruce is in consequence entirely neglected.

DEMARARA.

In the year 1897 this island imported 4,463,673 feet of white pine and 934,439 feet of pitch pine, on which the duty was \$3 per thousand feet. The white pine sold at from \$21 to \$24, refuse bringing \$17. The average price for pitch pine was \$23. Some shingles were also imported. White pine is imported in about the proportion of 20 per cent. of 2 inch plank and 80 per cent. of 1 inch boards, 12 to 16 ft. long, which is received principally from New York and Portland, and much of it is known to be Canadian lumber. The trade in Nova Scotia, at one time large, has decreased of late. Spruce and hemlock do not appear to be in demand.

Messrs. Merwin, Woods & Co., Fredericksted, write: "This market is too small to receive cargoes of lumber. We, ourselves, from time to time, order small quantities of white pine boards from Halifax when we have any difficulty with freights by steamer from New York, but we always find that the Canadian lumber is not uniform in thickness; that is, we require, as well as the other West Indian islands, boards 12 inches wide, from 14 to 16 feet in length and one inch in thickness. The Canadian lumber, as a rule, when ordered for one inch, is either one inch scant or one inch too full, i.e., 1 1/16, all mixed together, which is not satisfactory to the carpenters here; in consequence New York lumber for general purposes, though costing more, is preferred. The only importers, Messrs. Bartram Bros., get their

staves and heading, \$28,000; all other lumber, \$4,600; and a comparatively very small quantity of sawed and hewn timber and logs. Doors, sash, blinds and house finishings aggregated \$8,900 for Cuba and \$2,400 for Porto Rico; hogsheds and barrels, \$74,000 to the former and \$2,000 to the latter; household furniture, \$217,000 and \$25,000 respectively; woodenware, \$12,000 and \$1,000, and all other manufactures of wood, \$133,000 and \$4,000 respectively. These figures, while representing the imports of one of the most prosperous years, show the extent and importance of the market, to which attention might well be given by Canadian exporters. Spruce and white pine would be favorably received.

According to the proclamation of the President of the United States, the duty on lumber will be about as follows: Staves, per 1,000, 2 pesos; boards, deals, etc., round wood and timber for shipbuilding, per cubic metre, 1 peso; planed or dove-tailed, broomsticks and cases wherein imported goods were packed, per 100 kilos, 0.40 pesos; cabinet-makers' woods in deals, boards or logs, per 100 kilos, 3 pesos, sawed in veneers, 4.35 pesos; furniture or bent wood, per 100 kilos, 10 pesos; upholstered furniture, 0.60 pesos; common joinery, 2 pesos. The peso is the Spanish dollar, gold, and its value is 92.6 cents of Canadian money. The kilo is equivalent to 2,204 pounds.

ANTIGUA.

Following is a return showing the quantity of lumber, shingles, staves and shooks imported into Antigua for five years, from 1893 to 1897:

Year.	Pitch Pine. Feet.	White Pine and Spruce. Feet.	Shingles.		Shooks.	Staves.
			Cedar and Pine.	Cypress.		
1893	457,947 U. S.	602,960 B. N. A. 850,876 U. S. 1,000 U. K.	680,000 B. N. A. 797,250 U. S. 16,500 W. Islands.	480,450 U. S.	8,148 U. S. 2,981 B. N. A.	4,800 Bdos.
1894	455,251 U. S.	332,312 B. N. A. 506,677 U. S.	359,250 B. N. A. 150,000 U. S.	296,260 U. S. 5,000 Bdos.	1,522 Barbados. 1,201 B. N. A. 1,800 U. S. 130 French Ports.	6,000 Bdos.
1895	308,924 U. S.	393,781 B. N. A. 316,354 U. S. 1,370 B. Guiano.	431,850 B. N. A. 100,000 U. S.	568,000 U. S. 78,600 Bdos.	3,910 B. N. A. 500 U. S. 400 Barbados.	25,838 U. S. 16,857 B. N. A. 2,232 Bdos.
1896	306,619 U. S.	247,121 U. S. 110,200 Barbados. 29,929 B. Guiana. 26,551 Trinidad.	150,000 U. S. 115,000 B. N. A.	349,200 U. S.	3,500 U. S. 900 B. N. A. 400 Barbados.	24,000 Bdos. 36,721 U. S.
1897	182,827 U. S.	395,268 U. S. 118,607 Barbados. 27,323 B. N. A.	386,750 B. N. A. 20,000 U. S.	100,000 U. S.	1,465 B. N. A. 1,200 U. S.	2,400 Bdos.

lumber exclusively from New York. We only order from twenty to thirty thousand feet at a time, which is sufficient for our needs."

CUBA AND PORTO RICO.

It is expected that the lumber trade of Cuba and Porto Rico will immediately revive now that peace has been restored. Buildings will be reconstructed, and much of the lumber required therefor will be imported. The native timber is entirely of the hardwood variety, more suited to the requirements of the shipbuilder, cabinet, furniture and implement manufacturer. The principal woods are mahogany and cedar, the latter being exported to some extent, but the expense of logging, estimated at \$50 per thousand feet, has prevented the expansion of the industry.

In the year 1893 Cuba and Porto Rico imported over \$70,000,000 worth of merchandise, the greater quantity from the United States and Spain. Steadily since that year the imports have declined, until in 1896 they reached only \$50,000,000. Lumber has been imported almost entirely from the Southern States, and consists chiefly of pitch pine. Statistics show that in the year 1893 Cuba received the following: 29,000,000 feet of boards, deals and plank; 3,300,000 feet of joists and scantling; 232,000 shingles; \$24,000 worth of hoops; \$152,000 worth of shooks; \$66,000 worth of staves and heading, and \$63,000 worth of all other lumber. For the same year the imports into Porto Rico were: 8,000,000 feet of boards, deals and plank; 1,000,000 feet of joists and scantling; 65,000 shingles; shooks, \$76,000 worth; hoops, \$8,000;

The lumber most in demand is pitch pine scantling, 2 x 3 to 6 square; pitch pine plank, 2 inches thick; pitch pine boards for flooring, 1 inch thick, 6 inches wide; white pine and spruce plank, 2 inches thick; white pine and spruce boards, 1 inch thick, 12 inches wide.

MEXICO

THE MEXICAN LUMBER TRADE.

By Percy L. Robinson, Mexico City.

As is well known, Mexico furnishes a large variety of dye and cabinet woods, which grow in the coast countries, these woods finding their present markets in New York, San Francisco and European ports. Pine and oak, used entirely for home consumption, are found mainly on the great plateau and are almost invariably inferior to similar lumber from northern latitudes; therefore the latter will always find a ready market in Mexico at satisfactory prices. A potent factor in the Mexican lumber industry is the difficulty of securing satisfactory cutting rights, owing to the inaccessibility of the forests and the fact that these are usually the property of Indian tribes, who hold them in common.

At present nearly all importations of lumber into Mexico come from the United States, the principal reason of this being the proximity of one country to the other, and consequently cheaper transportation than obtains between Mexico and any other country which might share the trade.

At present most of the best oak is shipped from Mem-

phis, Tenn., and St. Louis, Mo., and is worth here about \$200 Mexican currency per 1,000 feet, the railroad freight rates to the frontier being 28 cents gold per 100 lbs. from Memphis, and 33 cents from St. Louis, and from the frontier to Mexico City and common points \$16 Mexican currency per 1,000 kilograms, which is equal to about 33 cents gold per 100 lbs. at present rate of exchange, 120 premium. This makes a through rate of 61 cents gold per 100 lbs. from Memphis and 66 cents from St. Louis.

The bulk of imported lumber, however, is pine, and a general idea of its price in this republic will be given by the present retail price in Mexico City of tongued and grooved planed pine, namely, \$60 to \$65 Mexican currency per 1,000 feet, and \$55 for flooring and ceiling. Most of the pine comes from Texas and Louisiana, either all rail or via Mexican gulf ports; the present railroad freight rates from mill points to the frontier being 18 cents gold per 100 lbs. plus the 33 cent rate to Mexican City and common points, which makes a through rate of 51 cents gold per 100 lbs.

The lumber carload freight rate from New York by steamer and rail to Mexico City and common points is 60 cents gold per 100 lbs., and on Canadian shipments the rate from point of origin to New York would have to be added, not to mention the expense of bonding through the United States.

It will thus be seen that, with the present transportation facilities and rates of freight, there is little opening for the sale of Canadian lumber in Mexico, but should a direct line of carriers be established between Canadian and Mexican ports, Canadian lumber merchants should be able to build up a very good trade with this Republic.

The following table shows the amount (in Mexican currency) and nature of the importations of lumber into the Republic of Mexico, during the fiscal years of 1895-6 and 1896-7:

Class of lumber.	Fiscal year 1895-6.		Fiscal year 1896-7.	
	Weight in kilograms	Inv. value Mexican silver	Weight in kilograms	Inv. value Mexican silver
<b>NON-DUTIABLE.</b>				
Ordinary boards, beams, scantling, etc., in the rough	77,759,131	\$ 612,819	89,951,478	\$ 724,317
Railway ties	14,176,850	110,716	20,866,919	116,519
Box lumber and boxes	6,431,457	153,670	4,741,072	120,266
Barrels and staves	30,706	30,706	27,662	27,662
Other non-dutiable lumber	2,272,781	56,145	2,540,285	43,321
<b>DUTIABLE.</b>				
Tongued and grooved planed boards. Duty \$1 Mexican currency per 100 square meters	2,109,103	129,754	6,336,168	357,351
Fine lumber, planed, all kinds, paying various duties	274,547	12,093	159,507	10,471
		\$1,103,903		\$1,400,461

SOUTH AMERICA

SOME of the South American Republics are becoming important markets for Canadian lumber. Several cargoes of pine and spruce are shipped annually from the port of Montreal, while the shipments from New Brunswick and Nova Scotia represent no small quantity. Of the latter no records are available, but it is known that some firms are engaged in that trade almost exclusively.

ARGENTINA.

In the year 1897 our direct exports of lumber to Argentina was valued at \$538,000, an increase of over \$100,000 over the previous year. Mr. Edmund E. Sheppard, Trade Commissioner to South America, reports that this trade can be very largely increased, as the woods of that country suitable for lumber are grown nearly altogether in the south towards Patagonia, and are very heavy and not adapted to the purposes for which white pine is used. Spruce is brought nearly altogether from Maine, and handling it is already a very large business. The export of portions of houses already prepared is successful in but few countries, owing to the tariffs, but the export of white pine lumber to Argentina, there to be milled and made into doors and sashes and frames in the yard where it is received, should be a very profitable business, for of all the countries of the south, Argentina is most rapidly increasing in population, the stretches of arable land being enormous, and the erection of small dwellings proceeding at a very rapid rate. The export to Argentina of lumber suitable for the fitting of

cattle vessels is also an important feature. The city of Buenos Ayres has a population of 700,000, and other principal cities are being built up very rapidly. The duty on spruce and white pine is about \$5.35 per thousand feet.

URUGUAY.

In the year 1896 the total imports of timber into Uruguay represented a valuation of \$771,000. Of this spruce pine accounted for \$517,000, of which \$500,000 was from the United States.

BRAZIL.

Last year Brazil imported Canadian lumber to the value of \$52,000. Owing to the fact that an insect attacks white pine and burrows through it until it is almost like a handful of ashes, that lumber is little used except for decorative purposes and doors and windows, where it is needed for its lightness, and is protected by varnishes and paint. In the interior and the southern parts of the country the importation of material suitable for window frames and doors should be very large. Of yellow pine there is imported annually about 30,000,000 feet, which realizes about \$25 net per thousand. This is also an average price for Canadian boards. The Canadian commissioner states that our trade is hampered by the fact that large ships from United States ports load partly with lumber and partly with kerosene, preferring to mix their cargoes, while mixed cargoes from Canadian ports are hard to obtain.

PERU.

This republic is showing many elements of prosperity, and is likely to prove a good market for Canadian lumber. This is also true of Ecuador, the chief seaport of which, Guayaquil, was recently destroyed by fire and is being rebuilt nearly altogether with wood. The lumber now used is obtained chiefly from San Francisco.

CHILE.

The timber importations of Chile are in the neighborhood of one million dollars annually, the bulk of which is supplied by the United States. The Chilean lumber is practically all hardwood. The methods of lumbering are very crude, as the result of which the native timber has not had the sale which would otherwise have been the case. The present condition of the country is favorable to an extension of the Canadian lumber trade, particularly in pine and spruce, although the native timber is protected by a substantial duty. The principal drawback to exports of pine and other timber from Canada is that there are no direct means of communication. Supplies of white pine, etc., are first shipped to New York or other United States ports, and hence by steamer, resulting in immense increase in freight and other charges, constituting almost the preclusion of the use of the lumber except on a limited scale. If direct shipments were made of such classes of lumber as could compete with Oregon pine for building purposes, undoubtedly a satisfactory trade would be brought about.

Below will be found an interesting letter from Mr. Lewis E. Thompson, Commercial Agent:

DEAR SIR,—Oregon pine was imported here in large quantities up to end of 1896, since which time importation has decreased, owing to the fact that building operations are very limited. A fairly good market is at all times open here for good quality of rived oak staves, of which large quantities are consumed yearly for making wine casks and barrels of different sizes. These staves are imported from New York principally, although small lots are also brought from France, and there is no reason why Canadian staves should not find a good market here also, providing the dimensions and quality are satisfactory.

The same remarks apply also to oak planks of 1 1/2", 2", 3" and 4" thick, and of any width up to 16" or 18", lengths from 12 to 18 feet; also white pine and ash of the same dimensions, all of 1st quality, will find a market, in case these can be delivered at same or lower prices than American lumber of same class.

BOX SHOOKS.—Two large consumers of empty boxes have been importing these for several years from England, and I notice that these shooks are made of Nova Scotia or New Brunswick spruce, evidently resawed for boxes in England; without doubt these shooks could be delivered here direct from Canada much cheaper than is

actually the case when they are imported from England, where the cost of making the boxes from deals must be considerable, added to freights and intermediate profits of dealers. The exterior dimensions of these boxes are as follows: Heads, 14 1/2" x 7 1/2" x 1 1/2"; sides, 23 1/2" x 7 1/2" x 1 1/2"; T. and B., 23 1/2" x 7 1/2" x 1 1/2"—all unplanned, but very well and smoothly cut to exact dimensions and neatly packed in complete sets. The tops and bottoms are composed of two pieces each, consequently the width of the box is 15 1/2" outside measurement.

Canadian merchandise in general labors under the disadvantage of being, in most cases, shipped from New York, and is consequently looked upon as American merchandise, thus placing Canadian products in Chilean statistics as tributary to United States. If complete cargoes of lumber, composed of staves, shooks, oak, ash, white pine and walnut, could be made up in Montreal, I think a good trade could be established between that port and Valparaiso, as return freights of nitrate of soda could be secured for these vessels which engage in this venture.

Should it not be possible or convenient to send full cargoes of lumber, other merchandise, such as agricultural machinery and general goods, could be introduced here with the same facilities which offer for American goods.

The writer is in touch with most of the large lumber importers here, and would suggest that intending exporters send me a list of prices for the lumber above mentioned, free on board in Montreal or New York, prices to be net and without the intervention of middlemen or commission agents, and with this data at hand the writer will make it a point to consult the importers and see if there is a possibility of introducing Canadian lumber here with any degree of profit and success.

It is my impression that a year or two must pass before there will be any considerable demand for Oregon or British Columbia pine, as the restriction in building operations, and also the suspension of all public works, has reduced the demand surprisingly. The greater part of the west coast trade in lumber is, I believe, transacted in San Francisco, and I have been informed that a syndicate has complete control over the entire production of Puget Sound and British Columbia in general.

LEWIS E. THOMPSON.

SANTIAGO, CHILE.

AUSTRALIA.

WHILE Australia possesses a forest area of some extent, the governments of several colonies have lately awakened to the fact that the supply will suffice only for a very few years. In addition to her native supply, Australia has for a number of years imported a large quantity of foreign timber, chiefly from the Pacific coast. The chief supplies are received from the United States, New Zealand and Norway, although last year there were shipped from British Columbia lumber to the value of nearly \$200,000. Much complaint has been made that inferior stock has been thrust upon the market, and this has operated against the interests of Canadian shippers.

The bulk of the dressed lumber received in Australia is from Norway and Sweden. It consists of flooring, siding and shelving, and it is said to be full of small and tight knots, which, of course, are objectionable. It is believed that if Canadian mill owners and exporters would push the business vigorously, a large trade in flooring could be secured in Australia, and especially the colony of New South Wales. The Baltic flooring is 6 x 7/8; the British Columbia is dressed out of 6 x 1, and is therefore 1/2 an inch narrower than the Baltic. The latter is quoted at 13s. 6d. per one hundred superficial feet, while Oregon, by which the B.C. product is known, has sold at 11s., but 11s. 6d. would be paid for it if it could be had.

It is probable that a moderate trade in doors could be secured from Australia by properly directed effort on the part of our manufacturers. These goods are now obtained mainly from San Francisco, the quotations being about as follows:

Size		
2' 6" x 6' 6" x 1 1/4"	double moulded	\$2.50
2' 6" x 6' 6" x 1 1/2"	"	2.75
2' 8" x 6' 8" x 1 1/4"	"	2.75
2' 8" x 6' 8" x 1 1/2"	"	3.00
2' 8" x 6' 8" x 1 3/4"	"	3.50
2' 10" x 6' 10" x 1 1/2"	"	3.25
2' 10" x 6' 10" x 1 3/4"	"	4.00

Less a discount of 40%, 5% and 2 1/2% cash.

The sizes most used are 2' 6" and 2' 8" x 1 1/2". In shooks and staves there is also an opening for trade. We are advised that the desire of importers is to deal direct with the mill owner or shipper.

In the following letter the importations by Victoria and New South Wales for the years 1896 and 1897 are reviewed:

SYDNEY, NEW SOUTH WALES, August 12th, 1898.

DEAR SIR,—It is only possible to give you the figures respecting the timber trade of New South Wales and Victoria, as these are the only colonies for which the trade returns of 1897 are to hand.

NEW SOUTH WALES.

The importations of timber for the years 1896 and 1897 were:

	1897.		1896.	
	Feet.	Value.	Feet.	Value.
Timber, rough	67,265,849	£328,753	52,668,742	£268,742
" dressed	8,723,450	65,567	6,619,688	47,957

Of these amounts the imports from Canada and the United States were:

ROUGH TIMBER.

	1897.		1896.	
	Feet.	Value.	Feet.	Value.
Canada	2,273,557	£ 8,317	1,998,916	£ 6,963
United States	25,513,065	106,962	21,753,448	95,780

DRESSED TIMBER.

	1897.		1896.	
	Feet.	Value.	Feet.	Value.
Canada	161,919	£ 920	80,733	£ 471
United States	1,495,318	10,171	400,958	3,755

In addition, there went into Broken Hill, via South Australia, and credited to that colony, 18,654,941 feet of rough and 504,005 feet of dressed timber. This, or nearly all of it, came from the Pacific coast of Canada or the United States. It was mainly what is known here as "Oregon," for timbering the mines.

Other items were sent by Canada to the following values:

	1897.		1896.	
	Canada.	United States.	Canada.	United States.
Laths	£342	£2,251	£250	£3,316
Palings	80	1,683	...	...
Shooks and staves	360	1,639	235	1,231

There were imported into this colony last year 36,999 doors, valued at £15,715, all but 1,400 coming from the United States.

These figures require but little comment. They show the extent of the market, the relatively small proportion that falls to Canada, the marked improvement of the trade of 1897 over 1896, and that Canada shared in it. The values show that prices in 1897 were rather better than in the previous year.

A year ago I sent you the sizes and prices of doors imported here, and stated that I should be glad to hear from Canadian manufacturers respecting the possibilities of the trade. The doors, then as last year, came from California, and were made of sugar pine. Some attempts have been made to introduce cedar doors from British Columbia, but as there is a prejudice against that timber, the experiment failed. A representative of the British Columbia Milling and Trading Company is expected here shortly, and on his arrival steps may be taken to ascertain whether this prejudice cannot be overcome. When I wrote you and also to some eastern mills respecting doors, the ordinary freight was too high to enable a profitable trade being done. My idea was to have prices and other information ready, so that should a more favorable opportunity occur, advantage could be taken of it. Unfortunately, no one replied to my letters, and the party here that I interested in the matter opened up communication with New York houses, and when freight rates went down to about forty per cent. of the former figures, doors were shipped here. Whether this will result in an extensive trade has yet to be determined, as much will depend on the relative rates of freight between San Francisco and New York and Sydney.

The figures show the very small proportion of dressed lumber supplied by Canada. Two years ago I anticipated the amount would be much increased. Had the Canadian steamers not secured more profitable freight, there is no doubt that the hope would have been realized. The demand for it certainly improved, but as it seemed impossible to get cargo space in Vancouver, the orders were sent to San Francisco, dressed spruce in the shape of shelving coming from that port. If the sugar trade between Canada and Queensland should develop as it now promises to do, it will require additional shipping, and the

B. C. millmen will have very much better facilities for getting into this market.

#### VICTORIA.

This being a protectionist colony, the duties on dressed and manufactured lumber, and the fact that in the tariff "Oregon" is discriminated against, affects the importations and limits them largely to deals and other undressed stuff. The importations of the classes in which Canada is or might be interested were:

	1897. Feet.	1896. Feet.
Deals, total . . . . .	2,061,900	4,429,600
From Canada . . . . .	884,900	2,400,700
" Norway and Sweden . . . . .	954,900	1,831,100
Laths, total number . . . . .	995,400	1,006,000
From United States . . . . .	739,900	1,002,000
" Canada . . . . .	249,000	.....
Oregon, total . . . . .	10,139,000	11,318,000
From Canada . . . . .	4,116,000	3,242,100
Staves, number . . . . .	562,133	245,923
From United States . . . . .	366,220	105,480
Undressed timber, total . . . . .	16,942,600	17,743,190
From Canada East . . . . .	.....	2,400
" United States East . . . . .	1,258,300	838,400
" " West . . . . .	1,746,900	1,074,700
" New Zealand . . . . .	11,994,300	13,329,000
" Norway and Sweden . . . . .	220,400	1,082,900

It will be seen that there was not much change in the trade of the two years. The largest decrease is in deals, both Canada and Norway and Sweden sharing. There was a demand for spruce deals, but freight rates were high, and this stopped business. The Canadian trade would be much improved by a reciprocal tariff between Canada and Victoria. The duty on Oregon and the free admission of all other undressed timber bears more heavily on the west coast trade of Canada than on that of the United States. Having redwood and sugar pine admitted free, it is easier to make up a cargo in San Francisco than in Victoria. Spruce should find a market in Victoria and take the place of Baltic lining and shelving, as it does in Sydney when it can be had.

Business is improving in Victoria. There appears to be a slow but steady recovery from the crisis of five years ago, and should it be blessed with fair harvest, of which there is now a good prospect, the trade of next year will show a decided advance over that of this or several previous ones. When it is remembered that a large part of its area has suffered from drought for three years, ruining its harvests and lessening its output of wool and butter, its present condition is remarkably good. With more favorable seasons there will be a resumption of building, although mostly like the extent that characterized the boom years prior to '93, and a larger demand for lumber.

J. S. LARKE,  
Canadian Commissioner.

### SOUTH AFRICA

In South Africa there is quite a promising market for Canadian timber products, in which our exports have increased during the past two years. This may be said to be a new field, as it is only within recent time that any considerable shipments from Canada have been made. There is, we believe, a good market there for spruce and pine deals, scantling, doors, sashes, blinds and other manufactures of wood, while a limited quantity of red pine, elm, ash and oak logs could be placed. The consumption of hardwoods in British South Africa will no doubt gradually increase, as the furniture and other industries using this class of raw material are fast developing. In deals 16 feet is the average length for the Cape Town market.

One essential feature in securing a more extensive trade for Canadian lumber manufacturers is that the goods should be placed on the market at a reasonable cost, as competition from Baltic woods is very keen. The attention of the trade is directed to the following letter:

14 WALE STREET, CAPE TOWN, SOUTH AFRICA,  
August 1st, 1898.

SIR, Since my last letter appeared in your journal, considerable improvement has taken place in the timber trade between Canada and South Africa, and I am pleased to note that cargoes from both the Atlantic and Pacific ends of the Dominion have arrived and are still coming, at least at this time Canada, with her timber and other products, is better known in this part of the world than ever heretofore. The transactions of the past two years have also had the effect of bringing the two colonies into

closer relations, and of seemingly reducing the mileage between them, and I have no hesitation in hazarding the statement that in the past twelve months the number of letters and cables passed between South Africa and Canada will show an increase of tenfold over any previous like period.

All this would indicate that business has begun to be done, and in my opinion it will continue so long as Canadians remain alive to their interests here, and no longer. With the exception of the timber trade, all cargoes have been coming, thus far, through the port of New York, there being a couple of steamers and sailers leaving there for South Africa each month, and so long as present bonding privileges and competitive freight rates to New York continue in force, there is not much to grumble at in that port as an outlet for Canadian general shipments and small shipments of lumber. In fact, before the United States put the new tariff on Canadian lumber, large quantities of Canadian pine were shipped here by American firms by the regular steamers and sailers from New York, which trade should now be continued by Canadians. This channel can therefore be utilized by shippers for the purpose of getting small sample shipments here.

I might say that the principal woods imported into this colony are deals 3"x9" and 3"x11", flooring boards, ceiling, clear pine and pine boards, planed on all sides and in the rough, and pitch pine logs.

During the year 1897 there were imported into this colony: Deals, 24,987 standards; ceiling and flooring boards, 13,755 standards. I have not obtained a return of the imports of pine boards, etc., which would be large, and the returns are not further classified.

Apart from spruce and pine, the major part of these imports is from the Baltic, but recently a new wood to the trade, called "fir," has been introduced here, and several cargoes have been shipped in from Tacoma, Washington Territory, and Vancouver, B.C. The advantage which Baltic timber has had over spruce and red pine is in lengths, as well as being slightly better in quality and more suited for building purposes and joinery work; but this country demanding long lengths, seems to have given fir a temporary advantage over all, in which deals are now being landed, from 40 to 50 feet long, without a knot.

There seems to be considerable sap in this fir, however, which is also loose in texture, and it is possible that it may not fill the requirements of the market. There is a market here for spruce deals and pine, and the Baltic being closed during winter months, betters the chances so far as the Maritime provinces of the Dominion are concerned, and longer lengths are produced in the provinces than in Quebec. Deals should be 3"x9", and as long as possible; other sizes do not sell well, as all building specifications are made out for 3"x9" sizes. White pine should be shipped say 12" and up x 1", and should be as long as is produced, planed on all sides. It is called "shelving" here. Clear and strictly clear pine boards should be rough, 1 1/2, 2, 2 1/2 and 3" thick, 12" and up wide, and of good length.

I believe the day will soon come when spruce flooring, ceiling and finish will hold a good place with the trade here. As for hemlock, a product of the Maritime provinces, and, I believe, a very good wood, nothing is known of it here, and until a sample lot is received nothing will be heard of it.

I take this opportunity of advising the merchants and mill owners of the Maritime provinces that I have opened here, under sanction of the government of the Dominion, a building wherein exhibits of all kinds may be placed free of charge, and intending exporters are invited to correspond with this office and send samples and form of invoice f.o.b. at port of loading, of goods they are able to supply.

We can without difficulty dispose of car load lots, out of which we can retain samples for exhibition purposes, and we have concluded an arrangement with Mr. J. B. Small, export agent, 30 State street, New York, to attend to trans-shipments, secure space for shippers, and to advise as to ocean freight rates and sailings. Railway companies will, however, grant through bills to South Africa on car load lots, in which case their own agents attend to trans-shipment.

Thanking you, Mr. Editor, in anticipation of again being allowed space in the columns of your valuable journal, I am,

Yours truly,  
THOS. MOFFATT.

## OTHER COUNTRIES

### UNITED STATES.

The United States market is so well-known to Canadian lumber manufacturers as to require but brief mention here. In the year 1896, with free lumber, our exports of lumber to that country were, approximately, 800,000,000 feet, valued at \$9,000,000. There were also exported shingles, lath, scantling, ties, pulpwood, etc., to the value of about \$5,000,000. Since the coming into force of the Dingley Bill, in July, 1897, our exports have fallen considerably. The duty on white pine, spruce and hardwoods excepting basswood, sycamore and white wood, is two dollars per thousand feet. These latter are subject to a duty of one dollar.

### FRANCE.

This country is quite an extensive importer of timber products, her chief supply coming from Norway and Sweden. Recently some Canadian lumber has been imported, which seems to have met with favor, and the outlook for an extension of the trade is believed to be promising. The Dominion trade and navigation returns give the export of spruce deals to France in the year 1896 as valued at \$110,000, but there is little doubt that this estimate is altogether too low. The average price of 3x9 inch deals at Bordeaux, one of the chief importing points, is 160 francs per standard c. i. f. This is equal to about \$32 in Canadian money.

### HOLLAND AND BELGIUM.

These countries also import lumber extensively, the native supply being entirely inadequate. Norway and Sweden furnishes the bulk of the import. Taking the port of Amsterdam alone, we find that in the year 1897 there were received 178 cargoes of wood goods. Zaandam received 142 and Harlingen 72 cargoes. Belgium imported \$20,000,000 of lumber in the year 1897. There is a market there for spruce and pine. Indeed, many kinds of lumber would be saleable, providing it is light, properly sawn, squared, and free from rot. The usual dimensions are from 2 to 8 inches in width and from 60 inches upwards in length. The rates of duty assessed on all lumber imported into Belgium are, per cubic meter (35,316 cubic feet), as follows: Oak and walnut wood, and building and cabinet woods other than oak or walnut, in logs or unsawn, and joists and pieces of lumber in the log or unsawn, less than 29 inches in circumference, \$0.19 1/2. Building and cabinet woods (except oak and walnut): Beams, sawn, \$0.38; beams, otherwise prepared, \$1.16; sawn beams, planed, \$1.74; all other lumber free.

Exporters of lumber desirous of increasing their trade in Belgium must conform to the usage of the country in their methods, especially in the system of measurement. All lumber sold is quoted by the cubic meter; any other method of giving quotations is unintelligible to Belgian dealers, and all price lists should be made on this basis. Correspondence should be in the French language, and care should be taken to employ the correct technical terms in describing the variety and condition of lumber offered, as confusion is very apt to arise.

### SPAIN.

Concerning the Spanish market Mr. J. Carreras-Ferrer, timber agent, Barcelona, writes as follows. "It is a singular fact that the imports of Canadian produce into Spain should be so limited, and show no signs of improvement. This apathy is due to lack of knowledge on the part of Canadian manufacturers and exporters. I would strongly advise that they appoint capable agents, thoroughly experienced and knowing perfectly the requirements of the different districts of Spain. This country offers a vast field for trade in Canadian wood products, such as pine, hardwoods, wood pulp, etc., and more especially spruce, which is required in large quantities for casing alone, on account of the quantity of fruit produced. The market deserves attention, and Canadian shippers who will take it up in earnest will reap the benefit of their enterprise. Business is of a most sound nature, no consignments, shippers have no interference with Spanish dues or duties, contracts are made for entire cargoes, both by steam and sailing ships, for determined specifications, at prices in sterling per standard f.o.b. at shipping points, and sometimes c.i.f. Recent sad international

events abated business intensely; but it is gradually recovering. The natural resources of the country are great, and Spanish people, kept to their own boundaries, will soon display their vitality."

#### GERMANY.

A limited quantity of pine deals and hardwoods are now exported from Canada to Germany. The requirements of that market, with its extensive manufacturers, are very great, and with vigorous and well directed effort on the part of our exporters a much larger trade could undoubtedly be secured. Nearly all kinds of lumber have been allowed to enter that country free of duty, but a more protective tariff has just been put into force.

#### CANADA'S COMMERCIAL AGENTS.

FOLLOWING is the correct official list of Canada's Commercial Agents in Great Britain, British possessions and foreign countries:

J. S. Larke, Sydney, N.S.W., agent for Australasia.  
G. Eustace Burke, Kingston, Jamaica, agent for Jamaica.

Robert Bryson, St. John, Antigua, agent for Antigua, Montserrat and Dominica.

S. L. Horsford, St. Kitts, agent for St. Kitts, Nevis and Virgin Islands.

Edgar Tripp, Port of Spain, Trinidad, agent for Trinidad and Tobago.

C. E. Sontum, Christiania, Norway, agent for Sweden and Denmark.

D. M. Rennie, Buenos Ayres, Argentine Republic, agent for Argentine Republic and Uruguay.

In addition to their other duties, the undermentioned will answer inquiries relative to trade matters, and their services are available in furthering the interests of Canadian traders:

J. G. Colmer, 17 Victoria street, London, S.W., England.

Thomas Moffat, 16 Church street, Cape Town, South Africa.

G. H. Mitchell, 15 Water street, Liverpool, England.

H. M. Murray, 40 St. Enoch Square, Glasgow, Scotland.

Harrison Watson, Curator, Imperial Institute, London, England.

#### FOREST PROTECTION IN MINNESOTA.

THE third annual report of the Chief Fire Warden of Minnesota has been published, from which it appears that, according to the reports of fire wardens, the damage done by forest fires in 1897 was \$22,455, and by prairie fires \$14,554. Considering that the value of the standing timber in Minnesota is \$100,000,000, the reported damage by forest fires is regarded as very small. The report states that the value of the pine, just as it stands, that is cut in Minnesota in a single winter, in a favorable business year, is \$5,000,000 when sawed into lumber at the mills, its value will have increased to \$10,000,000, of which increase 80 per cent., or \$4,000,000, represents labor; when further manufactured and worked up in various forms its value becomes multiplied. This partly illustrates the value of the forests as an industrial resource.

The Chief Fire Warden thinks that as the public comes to understand forestry it will be easier to enforce the law against forest fires. A leading principle of forestry, he says, is that the best agricultural land should not be devoted to forest. One of the great economic advantages of forestry is that wood and timber can be profitably grown on soil that is unfit for farming purposes. Another principle is that the forest must be continuous; that no more timber should be taken out of it in a year, or in a series of ten or twenty years, than grows in the entire forest the same period. Another principle is that the cutting of timber should be in blocks or strips so as to facilitate reproduction on the clear areas by seeds falling from the trees left standing. Another principle is that the forest when young must have in numbers vastly more trees than when it is mature. The tree grown in the open may be handsome and useful for shade, but it is useless for timber. To make good timber the forest, when young, must be crowded so as to secure height growth. Mixed wood managed on forestry principles in the Black Forest of Germany has per acre, at the age of 20 years, 3,960 trees; at the age of 100 years, 262 trees.

The manufacturers of lumber in the Southern States propose holding a conference at an early date to discuss the methods to be adopted for securing the trade in lumber with Cuba and Porto Rico.

#### HINTS ON BUILDING BAND MILL TRACKS.

By A. J. BURTON, Algonquin Park.

A FEW suggestions as to the method of building band mill tracks may be appreciated by the practical readers of your journal. One important consideration is that the timber or track ways should be of good sound wood. Southern pine is very well adapted for the purpose, owing to its strength and the fact that it will not warp or twist easily. Plane the track timbers on all four sides as straight as possible, and endeavor to have the timbers of good length to avoid making the joint opposite the saw. Set the timbers 2 inches or 2½ inches into the cross timbers of mill, and bolt down the track timbers, say, every 6 feet. By bolting them it will be much easier to level up the track, for the high places can be drawn down and the lower places can be shimed up, always assuring a good level track. Key the trackways solid by driving hardwood wedges in the gains in the lower cross timbers which the trackways are let into; next, stretch a line parallel with lower band wheel shaft and put down the V or guide track first, which should always be the farthest from the saw, so that it will get less jar from heavy logs and from the nigger than if placed on the saw side, and moreover, you will have less trouble in keeping the track in line. The line should be two inches higher than the top of track iron.

After laying down both tracks temporarily, make a wood straight-edge long enough to reach from one track to the other, and cut a notch in it to fit the guide track exactly, and fair over the centre of guide rail drive in a nail to be used for a guide as a pointer to set the guide rail true to the line by. You can move this straight edge along every foot or so, and with care can set a guide track perfectly true.

It is taken for granted that the track is straight and level, that the edges of the band mill wheels are turned true, and that the lower wheel shaft is perfectly level. Draw a line parallel with the track from one end to the other; then draw a line across the track above the floor in front of band wheels and square this with the first line; then, from sticks or supports above the upper wheel, let fall two plumb lines at opposite edges of front side of upper wheel, and let these lines fall directly to or at equal distances from the line already stretched across the track. Then, by moving one or both ends of the lower wheel shaft, square the wheel shaft with the line across the track by having the opposite edges of the band wheel at exactly the same distances from the two plumb lines, and adjust top wheel in similar manner. It is better to have a band saw trained a little in rather than out of the log, but it is best to have it perfectly parallel with the track. Having the wheels properly lined, do not move the cross line again, not even to adjust the saw, but put saw on mill, run it slowly, and adjust saw with the tilt until the saw runs from ¼ to ⅜ of an inch off the front edges of wheels. If your saws are hammered alike you will not have to move the tilt again for the season's sawing, unless the saw gets hot or meets with an accident, for saws will all run alike if put up alike. Adjust guides carefully and slack off all four guides from saw. Next, set the lower log side guide up to saw, put in a sheet of writing paper between guide and saw, and then screw up the guide until paper will not fall out, but not so

hard as to move the saw out of line. Then fasten the guide firmly put in another piece of paper between the saw and the board side guide, and push the guide up and fasten firmly, and if right the paper will pull out tight and leave a perfectly guided saw without too much or too little clearance. Set the top guides same way, but always be careful not to move saw out of line when setting the guides.

If a band saw is hammered and fitted right, and the mill and guides are properly lined, the saw will stand a good feed and cut straight lumber.

#### SPACING AND LENGTH OF BAND SAW TEETH.

THE spacing of band saw teeth as used on bands and band resaws varies from 1 to 2 inches, but the great majority run a spacing of about 1½ to 1¾ inches. There is nothing to recommend a longer spacing than the above, unless it is desired to run a long tooth with extreme hook. In such case a 2-inch spacing may be used with a throat from ¾ to 1 inch deep on a log band saw and from ⅝ to 9/16 on a band resaw, with a large rounded gullet quite similar to that run on a circular saw. Shorter teeth are usually preferred for hardwoods and frozen timber than are used for softwoods or summer sawing. Thus a ½ inch tooth is generally used for hardwoods in winter and 9/16 in summer, while teeth for soft woods range from ½ inch to ¾ inch, or longer.

A style of throat that is very popular in many sections, and especially among the cypress manufacturers, is the rather long throat with the base line about horizontal. It is impossible to suggest that any particular style of tooth is best adapted to any particular wood, for the reason that all shapes of teeth are apparently used with success in different woods. Expert users of band resaws find that for boxboard work not over 12 inches wide, a spacing of 1½ is satisfactory. In work demanding a minimum saw kerf and a moderate speed for saw, as in sawing picture backing, etc., a 2 inch spacing is found good. The same is true of resawing panel stock and hardwoods. Kiln dried hardwood, such as oak, hard maple, etc., tends to dull the saw very rapidly unless the feed is well regulated, and it is well to have the saw stand a fair feed instead of simply allowing it to rub the dust away. Careful feeding of the saw in kiln dried hardwoods will enable the saw to do good work in cutting considerable stock, where feeding without exercise of careful judgment may dull the saw in a few minutes.—From Baldwin, Tuthill & Bolton's Manual.

#### GREAT FORESTS IN INDIA.

FEW people have any idea of the immense forest area in British India—a valuable asset which is now being systematically preserved. At the present time the reserves of the forest cover an area of nearly 75,000 square miles, and they may be hereafter further extended in Madras and Burma, where the work of reservation is as yet incomplete. Outside these reserves are about 56,000 square miles of state forests, some of which will eventually be brought within the reserve area. This means that there are in India practically for all time forests which would completely cover the United Kingdom. The mountain slopes of the Western Ghats are still covered with the vegetation of the primeval forests.

## WOOD PULP DEPARTMENT

### THE PAPER AND PULP INDUSTRY.

The past two years have witnessed a marked development in the paper and pulp industry of Canada, and yet, considering our vast resources and the excellent facilities at our doors for manu-



VIEW OF THE CHICOUTIMI PULP COMPANY'S MILLS AT CHICOUTIMI, QUEBEC.

facturing, it is rather surprising that we have not taken advantage of them to a greater extent. It would seem that only recently have Canadians realized the value of such immense spruce forests as are to be found in this country, but now that a commencement has been made in the right direction, we look forward to the establishment of an industry of almost inestimable value to the people.

We have in the past been too content to allow our raw material to be taken to the United States, there to be manufactured into pulp and paper for supplying the British market. It is estimated that in the United States there are 1,200 pulp mills, turning out more than 1,500,000 tons of pulp per year, in the manufacture of which about 2,000,000 cords of wood are consumed. Much of this wood is supplied by Canada. In the year 1892 the United States imported \$183,312 worth of pulp wood, while last year the import was valued at \$711,152. The significance of these figures is that the United States is becoming more and more dependent upon Canada for a supply of pulp wood, and unless some protective action is taken by the Dominion government, an increasing quantity will be taken away each year. According to the present tariff arrangements, pulp wood is subject to no duty whatever, but the United States government collects a duty of 10 per cent. on imported manufactured pulp and 15 per cent. on paper. The position is therefore unfavorable to the building up of the pulp and paper industry in Canada so far as the United States market is concerned. Whether any change will be made as a result of the conference of government representatives now in session at Quebec is an open question.

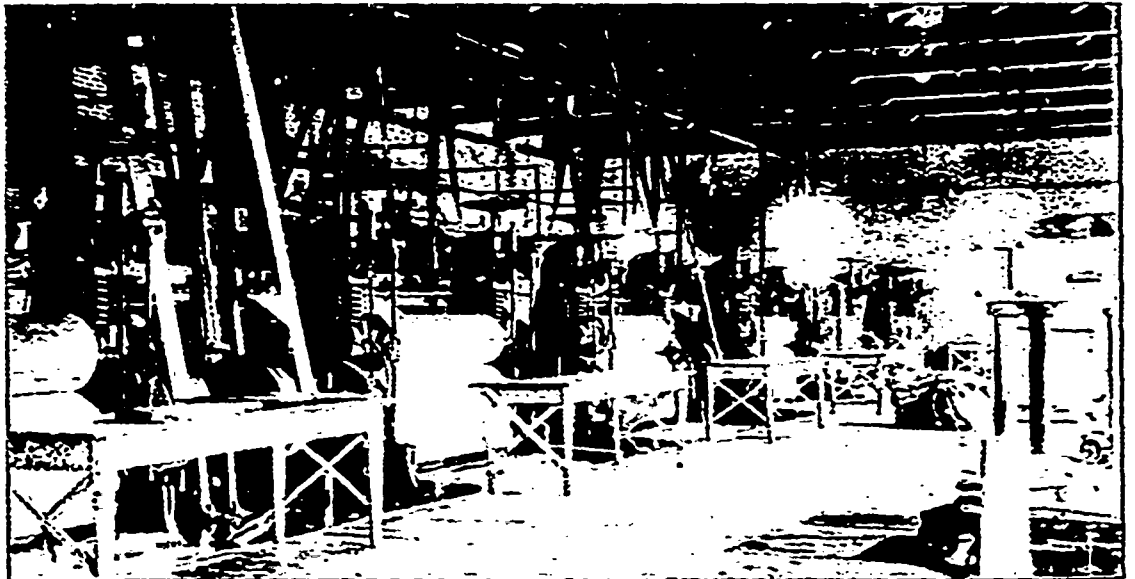
In European countries, however, there is a market for paper and pulp which is not subject to such discrimination. We now supply great

Britain paper makers with a limited quantity of pulp, which is regarded as of superior quality to that obtained from Norway and Sweden, but the quantity bears little relation to the facilities which we possess for the manufacture of the material.

### THE CHICOUTIMI PULP COMPANY.

ONE of the most extensive establishments of its kind in Canada is that of the Chicoutimi Pulp Company, at Chicoutimi, in the province of Quebec. The works are situated on the Chicou-

timi river, about one-quarter of a mile from its discharge into the Saguenay river, which is navigable up to Chicoutimi. The mill is on an island, the river flowing in rapids on both sides. The Chicoutimi river flows from Lake Kenogami, where the company have about 700 square miles of timber limits, in which black and white spruce are plentiful. The Quebec and Lake St. John Railway Company have a siding right up to the



VIEW OF PORTION OF WET MACHINE ROOM, CHICOUTIMI PULP COMPANY.

door of the mill. There are several large falls of water both above and below the mill, where a large amount of power might be readily developed.

The town of Chicoutimi numbers about 7,000 people, and is quickly growing, over 100 houses having been built this year. The town is lighted by electricity generated at the pulp mill, and has also a good system of water works. It is a very pleasant place to live in, owing to the superb

atmosphere which permeates the district and the many pleasant excursions which can be made to the numerous lakes and mountains where fish and game are abundant.

The pulp works occupy a space covering several acres. One block of buildings comprises grinding rooms, measuring 60 x 80 ft., wet machine rooms, 150 x 50 ft. (of which a view is given), pump room, 30 x 50 ft., bailing room, 30 x 40 ft., electric light room 30 x 40 ft., all on the island as aforesaid. On the main land is a large wood preparing room, 50 x 80 ft. On a convenient spot are also the blacksmith shop and machine shop, the largest in that section of the country. Other buildings comprise the boiler house used for heating purposes and a large storehouse. The offices occupy a commanding view of the whole works and are light and commodious.

The falls and rapids from which the mill derives its power are 170 feet high, and are capable of developing 15,000 horse power, although at the present time the company use only about 4,000 h.p. The water is conducted to the water wheels by a steel flume 11 1/2 ft. in diameter, having 55 ft. head and 20 ft. draft tubes. The turbines are of the Crocker pattern. There are two 40 inch, one 25 inch, and one 20 inch, all in the same penstock. The wood preparing mill is driven from a wheel in this penstock, and the power is transmitted across the river by a shaft running over a steel bridge.

A series of chains carry the wood from either the cars or the river reservoir to the saws, and from thence to the barkers, whence they proceed across the river to the grinder room without being handled by men. Six grinders of the newest type grind there an average of 50 cords per day, and a sufficient number of screens doubly screen all the pulp produced. In the wet machine room are eight heavy wet presses capable

of making from 80 to 90 tons of pulp daily, and powerful hydraulic presses for the purpose of extracting the water and bailing. The pulp is all put up in press-packed bales and sent to Europe. Shipments are made from the Chicoutimi port and also from the port of Quebec.

The company employ on an average 125 men. In winter 200 extra men are given employment cutting the wood in the forest and drawing it to the edge of the different rivers, which are very

numerous in the district. About 400,000 logs are thus cut down and floated on Lake Kenogami and the Chicoutimi and Saugenay rivers to the mill. The yearly consumption of black and white spruce is about 15,000 cords, producing approximately 24,000 tons of wet pulp. It is the intention of the company to increase its plant in the near future.

The president of the company is Mr. J. D.

Guay, of Chicoutimi, who is also the proprietor of the paper "Le Progres du Saguenay." The managing director is Mr. J. E. A. Dubuc, a man of great financial capabilities, who has promoted the interests of the company with a very remarkable success. The superintendent, Mr. Oswald A. Porritt, a practical man of much ability in chemical as well as in mechanical pulp, has under his supervision the whole plant, the

produce of which is readily disposed of in the European market. Much of the machinery in the mill was supplied by the Waterous Company, of Brantford.

There are almost 2,000,000 acres of timber on the island of Anticosti, and M. Menier, the owner, will probably establish two pulp factories.

It is expected that the pulp mill at Sturgeon Falls, Ont., which was recently taken over by an English syndicate, will be put in operation during the present month.

**PULP and PAPER MILL MACHINERY.....**



OUR STANDARD SCREEN.

Complete Equipments supplied for  
**GROUND WOOD, SULPHITE or SODA PULP MILLS.**  
Screens, Screen Plates, Wet Presses.

**THE PORT HENRY PULP GRINDER**

Barkors, Chippers, Digesters, Tanks, Pumps, Etc.

Send for Prices and Information.

**THE JENCKES MACHINE CO.**

38-40 Lansdowne Street, - SHELBURKE, QUE.

**PULP MILLS - ATTENTION !**

**Phosphor-Bronze Castings**

of any weight, for Pulp Mills (special mixture.)

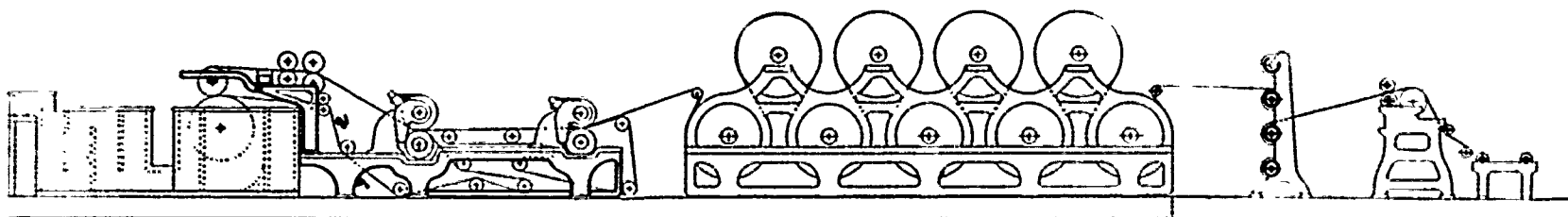
All Bronze manufactured by us.  
Quotations and References cheerfully given.

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DUNDAS, ONTARIO, CANADA



Builders of High Class

**Paper Machines**  
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THE J.C. McLAREN BELTING CO. MONTREAL



THE LUMBER TRADE IN MONTREAL.

MONTREAL, Sept. 6th, 1898.

To the Editor of the CANADA LUMBERMAN.

DEAR SIR, The lumber trade in this city is not much improved in a local way from the recent years of depression. Building contracts are comparatively scarce and prices low; consequently, a certain number of builders have gone into the speculative building trade. Hundreds upon hundreds of houses have been erected in the suburbs in desirable localities made accessible by the electric railway extensions, but it has been overdone, and great numbers are idle for want of tenants or purchasers.

The usual method with many who have little to lose and much to gain is to secure a desirable site, pay cash for the land, and borrow and get credit for the building. This worked all right as long as there was a demand for houses, but as purchasers and tenants are not keeping pace with the number of houses, flats and tenements built, the game plays out, and when the houses will neither rent nor sell, or the builders cannot borrow any more money on them, the venture collapses, and the poor lumbermen, millmen and others get left out in the cold. I will give you one instance: A builder who has been erecting scores of houses and tenements, got behind from being unable to sell or negotiate further loans. He owed a lumberman five thousand dollars for material, for which he gave notes. When the notes came due there were no funds; they were renewed as they came due, and nine per cent. interest charged. The lumberman got worried over it and pressed hard for a payment; the builder made a strenuous effort and handed in ten dollars on account. Very shortly afterwards the estate was thrown into bankruptcy, and the lumberman realized sixty dollars out of the five thousand.

There are scores of cases of this kind, which show the unhealthy state of the retail lumber and building trade in this vicinity. Parties who have been catering to this class of trade are beginning to feel the effects of it severely. Credit and bad debts are the curse of the building and lumber yard trade. Irresponsible parties get too much credit and recklessly underbid and undersell responsible parties with capital. Credit is far too easily obtained, as everybody is anxious to sell.

Yours respectfully,

"RETAILER."

THE BRITISH PULP MARKET.

The following communications from pulp importers in Great Britain, referring to the possibilities of that market, will doubtless be of interest to Canadian pulp mill owners:

GLASGOW, SCOTLAND, 1st September, 1898.

DEAR SIR: Canadian pulps are making their way gradually into favor among British consumers. Mechanical has the advantage in quality over much of the Scandinavian pulp that is imported, and is better liked, but it has this disadvantage, that it is put up in loose bundles and is difficult to handle without loss, whereas all Scandinavian pulp is loiled in canvas. Sales might be increased if Canadian mills adopted this style of loiling. Sulphite is taking a better place in the market than it did. Buyers like the spruce fibre, but complain of irregularity and want of strength. There is a great future for this article, but whether it commands a high or low price will depend on quality and cleanness. In the latter respect it is wanting. If makers would give more care to have the pulp properly screened, and make it slightly stronger, there would be a greatly increased volume of business done and higher prices obtained.

The new mills in process of erection, and contemplated will throw a much larger quantity of pulp on the market, and as

great activity is also shown among Scandinavian mills to increase their output, prices will naturally be lower, and rule lower for all sorts until the trade can absorb the increase. Makers who are alive to this have in many instances already discounted the fall and accepted lower prices for next year. We consider the haste to do so premature, seeing that the output from new mills cannot come on the market "all of a heap," but will come gradually and at considerable intervals of time. The fact that some well known brands of Norwegian sulphite have been sold for all next year much lower than last year's contracts were booked at, has compelled other not so well known brands (as well as Canadian) to follow suit.

Yours truly,

THOS. KENNEDY & SON.

LONDON, ENG., Sept. 5th, 1898.

DEAR SIR: At the present time prices of pulp are somewhat uncertain. The Scandinavian makers are not very well satisfied with the prices they are now getting, and it seems probable that lower prices will have to be accepted for next year's contracts. Most of our large paper mills contract for a 12 month's supply in advance. Still for all that, we anticipate much larger trade for Canadian pulp, provided freights keep reasonably low, and we anticipate that steamer freights will be much lower from Canada during the next twelve months. The unsettled state of the freight market, owing to the Spanish-American war, is now over, and owners will be obliged to accept cheaper rates. During the past week there has been a good demand for Canadian pulp, and we hear of several good contracts for next year's delivery.

We can place from eight to ten thousand fathoms of spruce and poplar pulpwood, lengths 4, 6, 8 and 10 feet, and should be glad if you could give us the names of such firms (not already represented here in England) who could supply us with this quantity.

Yours faithfully,

ABBOTT & Co., LTD.

THE LATE THOMAS HALE.

ANOTHER prominent lumberman of Ontario has joined the ranks of the great majority, in the person of Mr. Thomas Hale, who died at his home in Pembroke on Thursday, September 15th. For some time Mr. Hale had been afflicted with a nervous disorder, but was on the road to recovery, when, one month previous to his death, he was attacked by typhoid fever, with fatal results.

Deceased was born in the year 1841 on the old homestead on Hale's Creek, about four miles west of the town of Pembroke. His father, who was one of the pioneer settlers, was an Englishman, and his mother of Scotch descent. Lumbering attracted Mr. Hale when he was a mere youth, the free life of the woods appealing irresistibly to him, and he has been a lumberman ever since. When about fifteen years old he went to the shanties, and was soon promoted to the position of foreman and pilot for Mr. J. L. McDougall. After serving some years in that capacity he branched out as a lumber jobber, and was quite successful, no doubt owing to his thorough practical knowledge of the business. He afterwards formed a partnership with Mr. Robert Booth, of Pembroke, which continued for some time, when he became associated with Mr. J. R. Booth, the

lumber king of the Ottawa valley, the firm name being Hale & Booth. This firm, twelve years ago, bought some timber limits, and from a very small beginning built up a large business. Mr. Hale's first acquaintance with Mr. Booth was in 1878, when he took out a large quantity of logs for his Ottawa mill by contract. It is said that he was the first Canadian to float a raft of timber out of Michigan for the Quebec markets. The Michigan raft was taken from the Two Heart and Sucker Rivers in Northern Michigan, where the firm owned extensive limits, which they have been working recently. In the last few years they have sold many logs to Michigan manufacturers. The firm's limits in Canada are on the Montreal, the Magnetawan, Vermilion,



THE LATE THOMAS HALE.

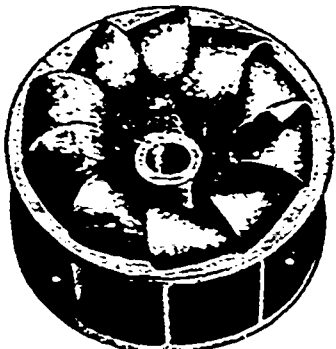
White Fish and Serpent rivers, and in the Kippewa.

Within a few years Mr. Hale was a comparatively poor man, but with qualities for the work he had chosen which ensured success, his opportunities came, and he took advantage of them so effectually that at the time of his death he had accumulated considerable wealth, being the owner of much property in Pembroke. He was a busy man, always actively engaged in looking after the interests of his firm. Indeed, it is feared that his close attention to business hastened his end. In religion Mr. Hale was a Presbyterian and in politics a staunch Liberal, being one of the prominent workers for that party in the North Riding. Mr. Hale is survived by his wife, two daughters and three sons.

Advertisement for Canadian Office & School Furniture, featuring an illustration of a desk and chair, and text: 'FINE BASKETS, OFFICE CHAIRS, SCHOOL DESKS, SEND FOR CATALOGUE.'

BARBER'S CANADIAN TURBINE

As a Saw-Mill Wheel, it is by far the most efficient driver, varying from light to full load and runs steadily through the heaviest cut.



"Is by far the Best Wheel, runs through the Heaviest Cut where the Lethal could not live." - WHEEL WORKS. Lowest Price and Highest Satisfaction. C. BARBER - NEWFORD, ONT.

Advertisement for Geo. T. Houston & Co. Hardwood Lumber, featuring an illustration of a sawmill and stacks of lumber, with text: 'Geo. T. Houston & Co. HARDWOOD LUMBER'.

WHOLESALE INDUCEMENTS

We invite Travelling Buyers to visit our Double Hand Saw Mills and examine our large dry stocks. Location: Bigbee, Miss., south-east of Memphis, Tenn., on K. C. M. & R. Railway.

SPECIAL NOTICE

We can furnish large lots, straight or mixed carloads, dry stock, at Saw-Mill Prices, and make quick shipment. Inquiries and orders by mail or wire solicited.

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Large Figured Band-Sawed Quartered White Oak is our main Specialty. All kinds Hardwood Lumber, Yellow Pine and Cypress, Wood Stock. Dimensions sawed to order.

Main Office: GEO. T. HOUSTON & CO., Chicago, Ill., U.S.A.

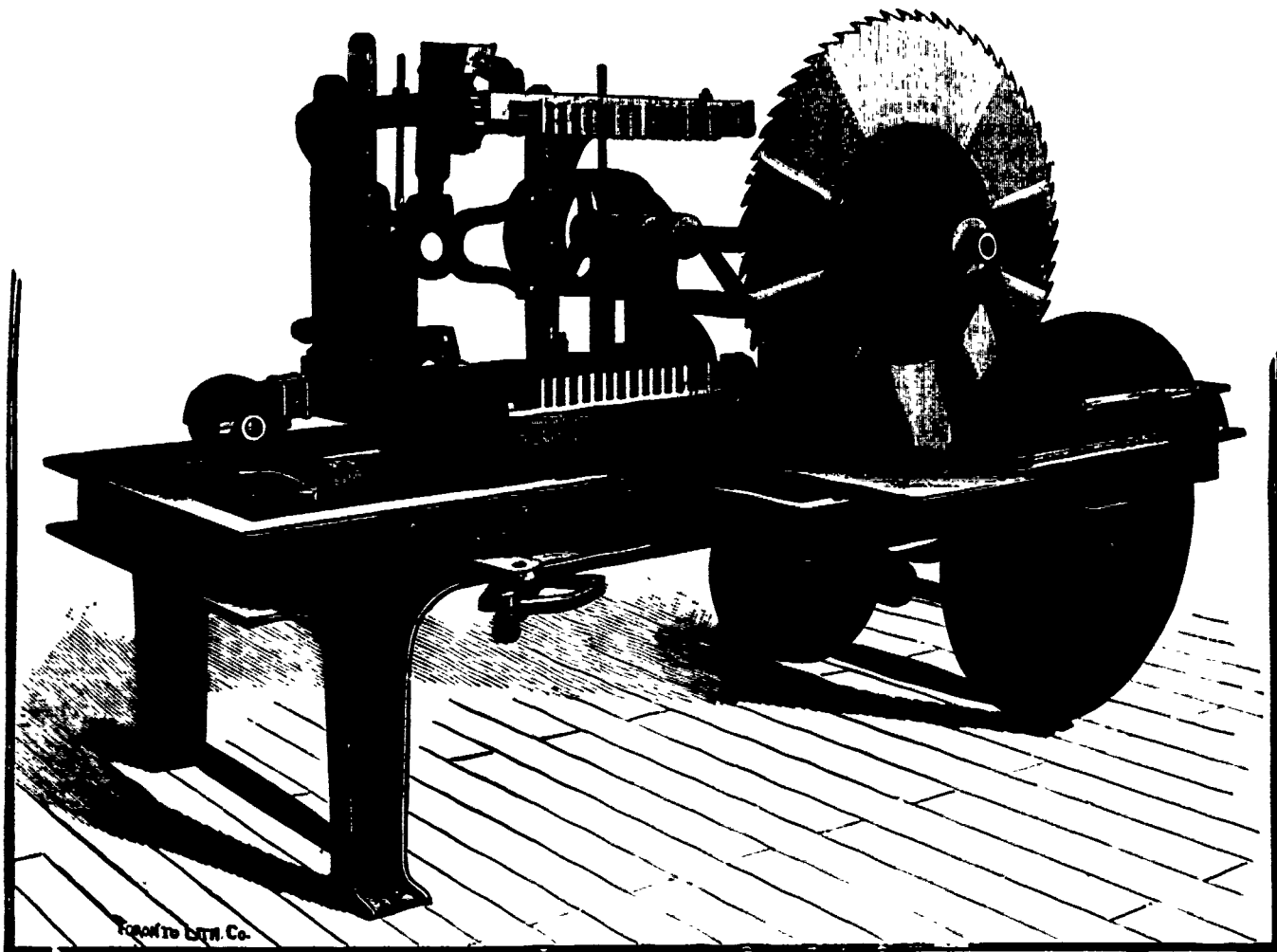
**THE LANE SHINGLE MACHINE.**

An illustration is given herewith of the Lane shingle machine, as manufactured by the Lloyd Manufacturing and Foundry Company, of Kentville, Nova Scotia. This machine is used very extensively in the United States and Canada, over one thousand having been sold in the former country, where the patentees, the Lane Manufacturing Company, have been awarded numerous gold medals and diplomas. Regarding the construction and operation of the machine, the manufacturers state that the saw arbor is of best steel and 2 3/4 inches in diameter, with bearings 10 inches long, lined with best babbit

attached to carriage on front and running on track. By an attachment to handle that starts and stops carriage is a pall, so arranged that when handle is turned to stop carriage, this pall engages in a toothed rack fastened to bottom of carriage-way, and securely locks carriage, which overcomes the dangerous objection in many other machines when carriage starts a operator is putting in block, and often causes the loss of an arm.

The top casting that holds block is arranged with two powerful springs with means for making the tension greater or less by a thumb nut. The top of shingle carriage is raised to receive block by a foot treadle which is not shown in cut, but

eccentric. On offset lug is a slotted lever or crank, having slot 3 inches wide and 18 inches long. Fastened to spoke of friction pulley is a pin with a 3 inch roller which fits in the slot of lever or crank; thus when you revolve friction pulley, and 3 inch roller is opposite full turn of lever, it will be at farthest end of slot in lever or crank, and when friction pulley is turned a half turn from this point, 3 inch roller attached to spoke of friction pulley will be three and one half inches from centre of fulcrum; thus to each revolution of friction pulley, it gives one slow and one quick motion return of carriage, four to one, this being done without the aid of any weighted movement.



THE LANE SHINGLE MACHINE.

metal; size of driving pulley, 13 inches in diameter and 10 in. face. The brackets that hold bearings are adjustable by screws, so that at any time they can be adjusted to line saw with carriage.

The block carriage is mounted on wheels, two large V wheels on back running on V track, which are provided with means of taking up all lost motion in case of wear, and on the front carriage runs on flat rollers of large diameter, being secured to framework of machine; the rail or way being attached to front of carriage. By this means the sawdust is prevented from sticking, as is the case when the wheels are

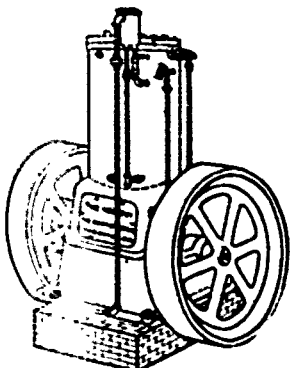
urnished with each machine. The feed has cones of two steps for varying the feed to suit the class of timber to be sawn. Attached to the cone shaft is a leather board friction, which is engaged or disengaged to friction pulley thirty-four inches in diameter, by simple movement of handle shown at side of machine. The large friction pulley revolves on a sleeve bolted solid to framework of machine, with sleeve extending about 2 1/2 inches through hub of pulley. Attached to the end of this sleeve is a casting with a lug pin three inches in diameter, which is offset from centre of sleeve 8 inches, swinging or revolving on this

The jointer is built attached to frame of machine as in engraving, or furnished separately when so ordered. The shingle rest or table is arranged with a swinging piece next to saw, which provides for shims or pieces getting between it and saw by it giving away and letting pieces through, then springing back; in machines where this is not provided for, many expensive accidents have occurred, and saws ruined by pieces getting in and crowding saw over against carriage.

The Lloyd Manufacturing Company will gladly furnish additional particulars of this machine to interested persons.

**Northey  
Gas and Gasoline  
Engine**

**Safe Powerful Economical**



Can be used to advantage for Lath and Stave Mills, Shingle and Deal Machinery, Portable Saw Mills, Barking or Pulping Machinery.

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"Built for Hard Work."

PULP NOTES.

Mr. Ali, a lumberman of Thirty-One-Mile Lake, Que., states that it is the intention of two American capitalists to build a pulp mill on that lake next spring.

The Electric Light and Power Company of Quebec are building a large power house at St. Gabriel Falls, Que., where it is proposed to establish three pulp mills.

It is said that H. R. McLellan, of St. John, N.B., has in view the erection of a pulp mill on his timber property at St. Maurice's, on the north shore of the St. Lawrence river.

It is rumored that the International Paper Trust has purchased the Guise water power on the St. Maurice river, in the province of Quebec, and will erect a large pulp mill there.

Mr. E. V. Douglas, of Philadelphia, who is interested in the Kakabeka Falls, on the Kaministiquia river, near Port Arthur, Ont., is understood to be negotiating for the building of a pulp mill in the vicinity.

A wind storm recently demolished some of the walls of the new pulp mill now in course of construction at Hawkesbury, Ont., for the Riordan Pulp Company, as a result of which the mill will not be completed as early as was expected.

Mr. Harry B. Wood, of Argyle Building, 45 Hanging-Ditch, Manchester, England, has been appointed agent for the Laurentide Pulp Co., of Grand Mere, Que., and will handle their production of sulphite and mechanical pulp in the British market.

The Maritime Sulphite Fibre Co., of Chatham, N. B., have ordered a 500 h.p. cross compound condensing engine from the Robb Engineering Co., to replace their present 250 h.p. engine and to provide for contemplated enlargements of their plant.

The new mills of the Laurentide Pulp Co. at Grand Mere, Que., are now almost completed. The plant has cost about \$1,500,000, and is modern in every respect. The daily production of sulphite pulp will be 75 tons, and of ground wood 100 tons.

Mr. W. G. Reid, of Montreal, who was given an extensive franchise by the Newfoundland government, is said to be considering the erection of a pulp mill at Grand Lake, with a capacity of 162 tons of dry pulp per day. For this purpose a company is being formed.

Mr. A. Drewson and his brother, Dr. Drewson, of New York, have just made an extensive tour of the pulp wood districts of the Petawawa river, with the intention of establishing large pulp mills in the vicinity of Pembroke, Ont. They hope soon to secure the necessary capital to carry out the proposed enterprise.

At a recent meeting of the Cushing Sulphite Fibre Co., of St. John, N.B., it was stated that Captain Partington, of the firm of Olive & Partington, Manchester, England, had agreed to furnish two-thirds of the capital for a 50 ton mill. An effort is now being made to secure local capitalists to subscribe the balance of the money.

Dr. Vigo Drewson, of New York, vice-president of the Petawawa Lumber, Pulp & Paper Company, was in Toronto last month. This company holds liberal concessions from the Ontario government setting aside extensive tracts of spruce lands in northern Ontario for the purpose of permanently supplying raw material for the manufacture of wood pulp in the large mills which this company will build at Petawawa, Ont., where it has secured about five hundred acres of land and all water power rights on the Petawawa river, in the vicinity of the Canadian Pacific Railway station. The com-

pany expects to have in operation before the end of the season a plant with a daily capacity of 50 tons of dry sulphite fibre. The company will probably build a paper mill also, of about 100 tons daily capacity.

A meeting of Canadian pulp and paper manufacturers was held in Montreal on September 14th, at which the following firms were represented: E. B. Eddy, of the E. B. Eddy Company, Hull; John McFarlane, of the Canada Paper Company; J. F. Patton, of the Dominion Fibre Company; I. Davy, of Meriton; F. H. Clergue, of the Sault Ste. Marie Pulp & Paper Company; W. G. Jones, of the Acadia Pulp & Paper Mills, Halifax, N. S.; Hamilton & Ayers, La Motte; F. C. Soucy, of Old Lake Road, Temiscouata; Jno. K. Barber, of Georgetown, Ont.; St. Raymond Pulp Company - Fraser's Company. After a lengthy discussion, the following resolution was adopted: "It is the sense of this meeting that an export duty be immediately placed on all pulp wood exported from Canada (no matter in what shape or size), which would be equivalent to the present import duty on Canadian pulp entering the United States, unless the United States admit Canadian pulp, both chemical and mechanical, free of all import duty."

The exhibit of Campbell Bros. at the St. John Exhibition consisted of carriage and car springs, axles, chopping, bench, boy's, hunter's, fireman's and ice axes, also hatchets, chisels, slicers and adzes. Their exhibit was somewhat different from that of last year, inasmuch as they took goods from stock and showed exactly what they sold to their customers. They claim to have booked some good orders. Their brand of hand made black axe seems to be the favorite with lumbermen.

# "A Home away from Home." Albion Hotel

22 Sackville St., HALIFAX, N.S.

S. LeBlanc & Co., Props.

This well-known Hotel, under new management, has been renovated, refurnished, and thoroughly improved throughout, and is now First-Class in every respect.

The "ALBION" is large, airy, and the most central Hotel in the city, near Post Office, Custom House, Principal Banks and Steamboat Landings.

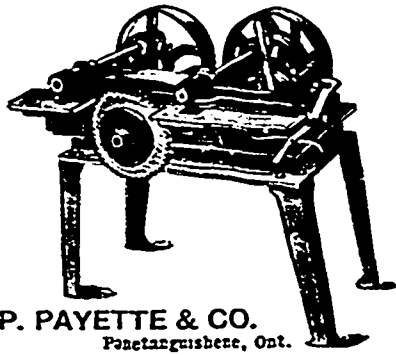
Every modern convenience for the comfort of Guests.

Electric Bells, Electric Lights.

Heated Throughout by Hot Water.

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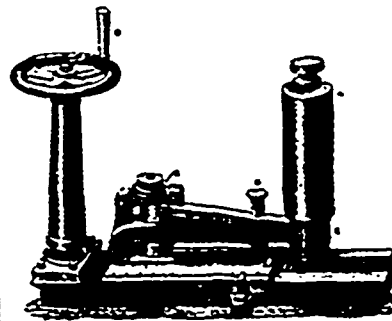
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Published Weekly by WILLIAM RIDER & SON, Ltd.,  
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The "TIMBER TRADES JOURNAL" circulates in all European countries, the British Colonies, United States, &c., &c., and is a very reliable medium of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



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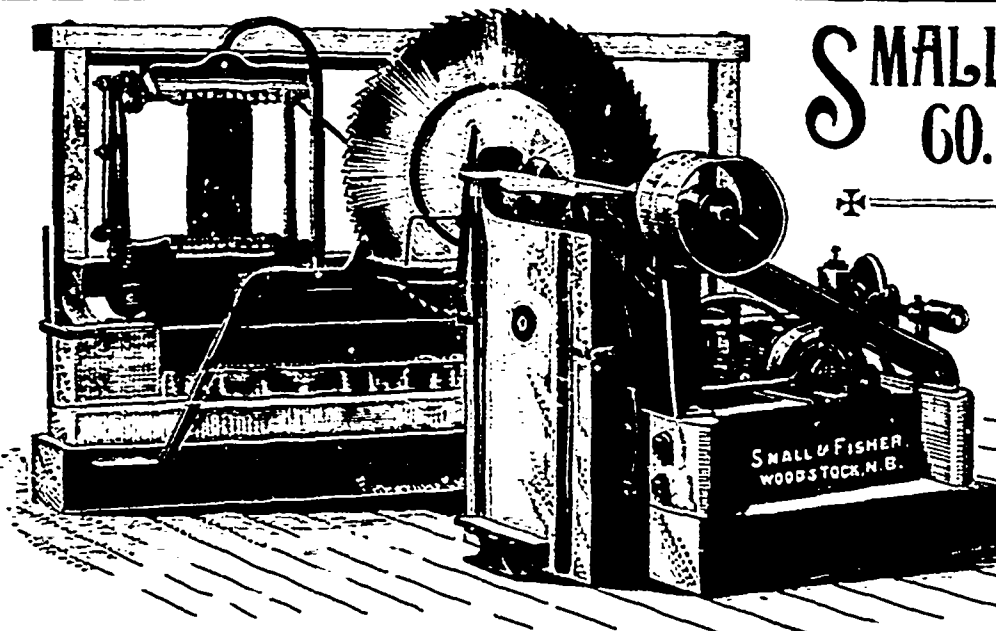
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**Lumber Lath & Shingles**  
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THE CANADIAN PHOTO ENGRAVING BUREAU



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

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Conceded by hundreds the BEST SINGLE CIRCULAR MILL BUILT. Do the same if you contemplate winter sawing.

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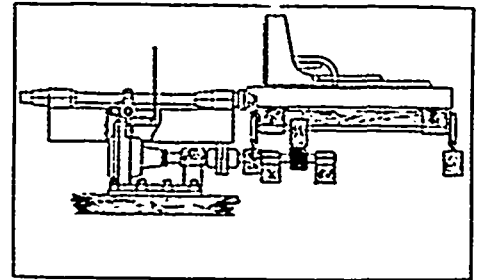
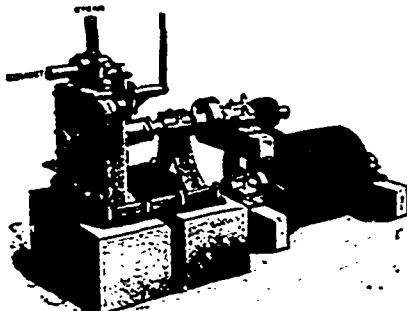
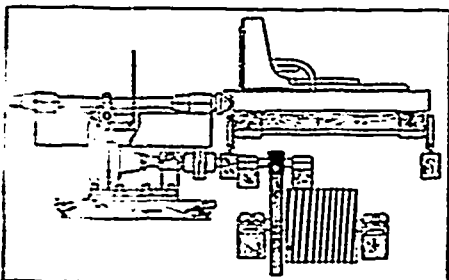
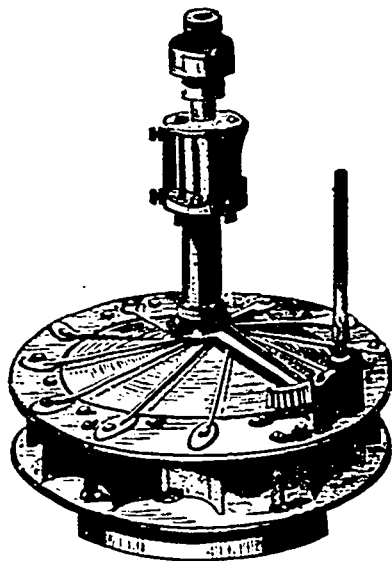
You've got one of the biggest crops to work on in years. Maybe the old wheel is not equal to the job. Don't take the risk. If you do the other fellow will get the best of it. The OTHER FELLOW is the one who places an order for a

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Embodies the following Advantages:  
SIMPLICITY OF CONSTRUCTION,  
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**THE JENCKES MACHINE CO.** - Sherbrooke Que.  
Succeeding the PHELPS MACHINE CO., EASTMAN, QUE.

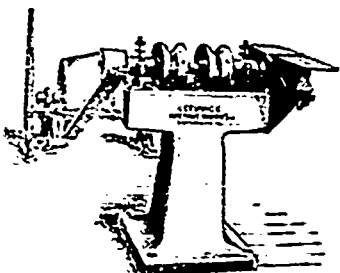
The movement of the engine in either direction is under the absolute control of the Sawyer, thus accommodating the speed of the feed to the size of the logs. Mill men who have used other makes of Steam Feeds comment favorably on the economical use of steam of our feed over others. Write for Catalogue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

ESTABLISHED 1850

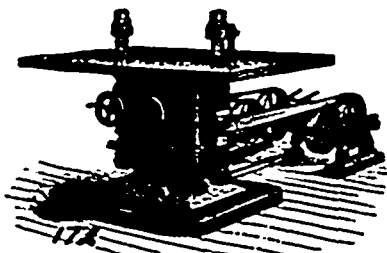
# THE DEFIANCE MACHINE WORKS

Designers and Builders of DEFIANCE, OHIO, U.S.A.

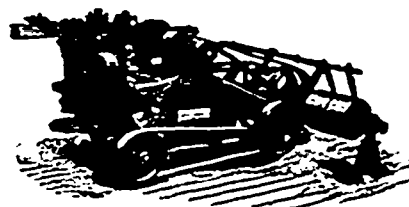
## PATENT HUB, SPOKE, WHEEL, WAGON, CARRIAGE, BENDING, HANDLE AND BARREL HOOP MACHINERY



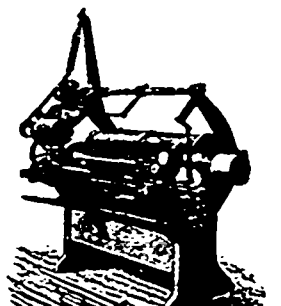
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**PLANED LUMBER,  
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GERMAN PAPER MANUFACTURERS desire offers of  
 Suitable Timber Limits or Freehold Timber Lands  
 for the Erection of Wood-Pulp and Sulphite Mills  
 on a large scale. Location, first cost, quantity of spruce  
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Correspondence solicited with Wood Exporters, especially Spruce;  
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 establish regular trade from the leading importing firms through-  
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And when in need of  
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 Communicate with

**EDWARD F. SPERING**  
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 CORRESPONDENCE SOLICITED

**Lumberman's  
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 Inspection Book**

Compiled by the Editor of the  
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Containing rules for the inspection of Pine and Hard-  
 wood Lumber in the leading markets of Canada and the United  
 States, embracing also many useful tables and calculations of  
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# New Allis Telescopic Band Mill

For Either Single or Double Toothed Saws

## WHAT DOES IT MEAN?

It means a Band Mill that is built on correct mechanical principles.

This entire mill is moved vertically, so that the centre of the upper band wheel can be brought down close to the top of the smallest log, thereby having a saw shorter than a gang saw above the work on any sized log.

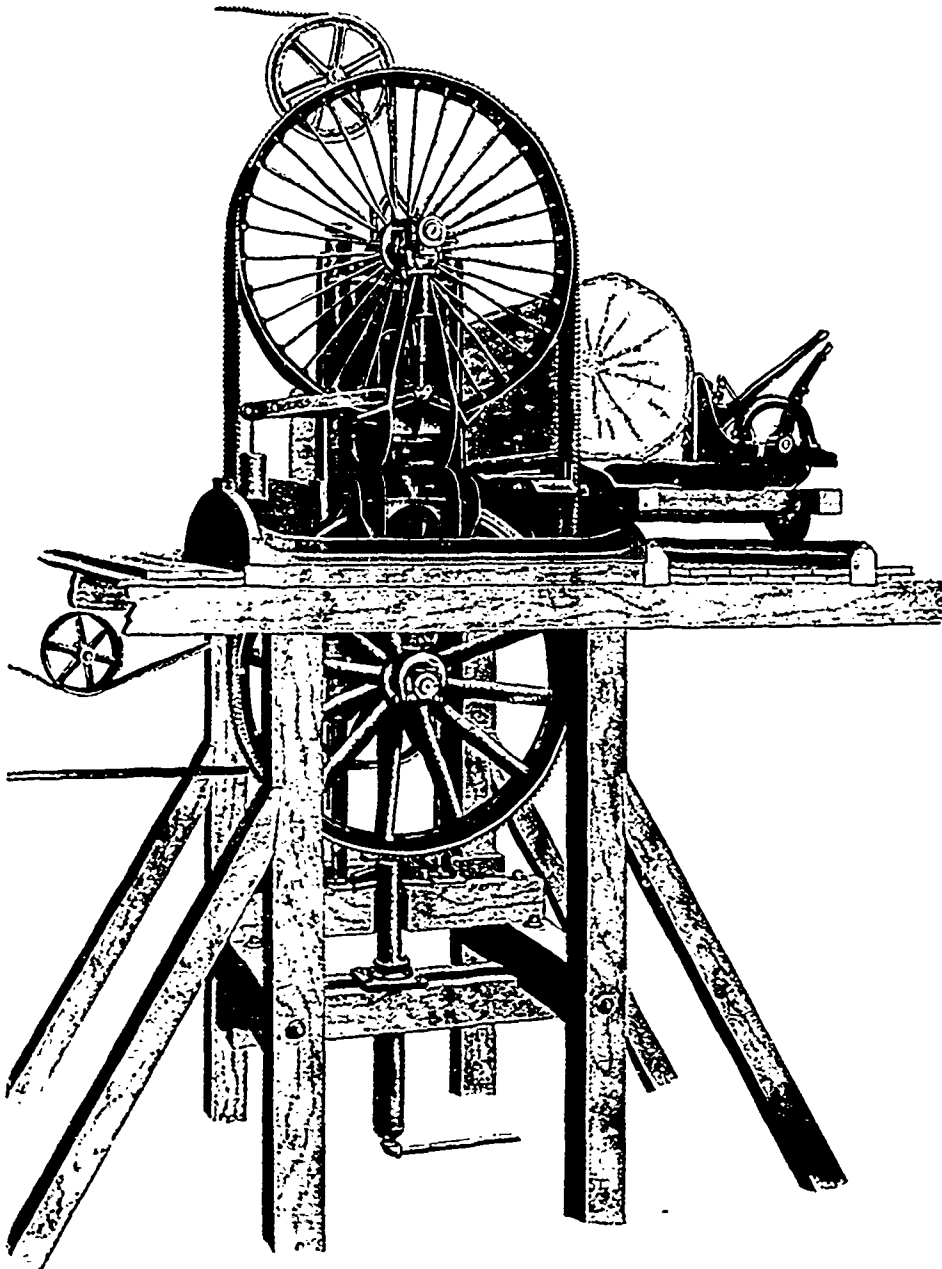
The vertical movement enables us to keep the surplus length of saw blade below instead of above the log. The upper wheel acting as the guide, insures the greatest possible rigidity of the saw, enabling the same to stand more feed than on the ordinary band mill.

This cut shows the Mill elevated to cut a large log.

Manufactured in Canada only by . . . . .

**THE WATEROUS ENGINE WORKS CO.**

BRANTFORD, CANADA



The machine is now, and has been for over seventy-five days, running twenty-two hours per day, fitted with double-toothed band saws, in the H. C. Akeley Lumber Co.'s mill at Minneapolis, Minn.

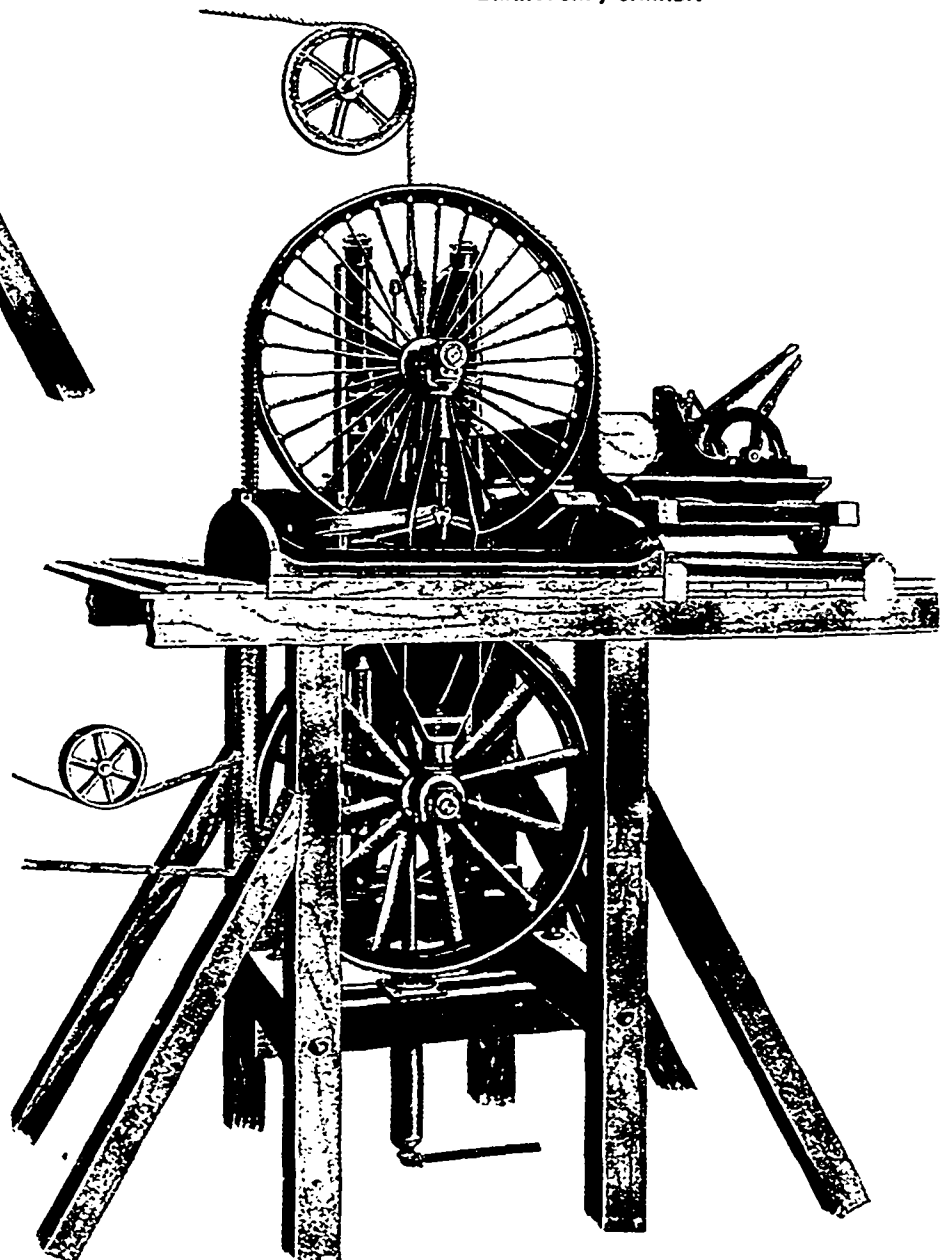
A visit to the above mill will convince anyone that this mill is cutting lumber at least 50 per cent. faster than it can be manufactured on any other make of band mill.

This mill is moved up and down at any desired speed while sawing by hydraulic power. The machine is very simple in construction, consisting of a regular band mill (less the upper guide and driving mechanism for same) mounted on slides with hydraulic cylinder for raising.

This cut shows Mill in lowest position to cut cants 12" thick.

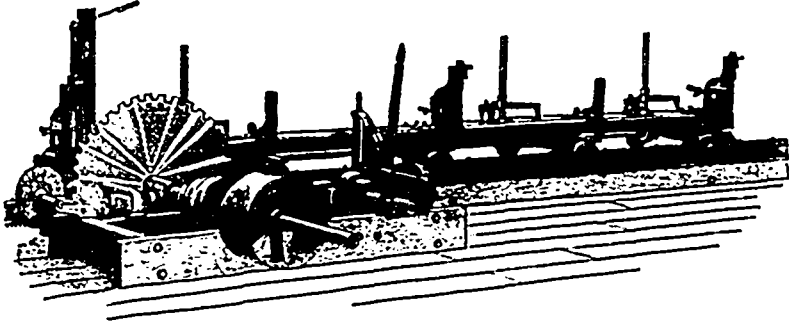
We will be pleased to mail you our Circular, giving full information.

**Waterous, Brantford, Canada**



# ROTARY SAW MILLS

We build three types of Rotary Carriages—the "Skeleton," as shown in cut; the "Lane," which has a wood frame mounted on trucks; and the "Angle," which is adapted to sawing heavy timber, as it will cut perfectly parallel.



We also supply Engines and Boilers for all purposes, Pulp Mill Machinery, Shingle Machines, Lath Machines, Planers, Edgers, Saws, Belting, and other Mill Supplies.

REPAIR WORK GIVEN SPECIAL ATTENTION

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as quickly as possible

**A PARTICULAR LOT OF LUMBER**  
**A MILL PROPERTY**  
**SECOND-HAND MACHINERY**

An advertisement in  
the "Wanted" and "For Sale"  
Department of the

**Canada Lumberman**  
Weekly Edition

Will secure for you a Buyer or Seller,  
as the case may be.

ADDRESS:  
**The Canada Lumberman**  
TORONTO, Canada.

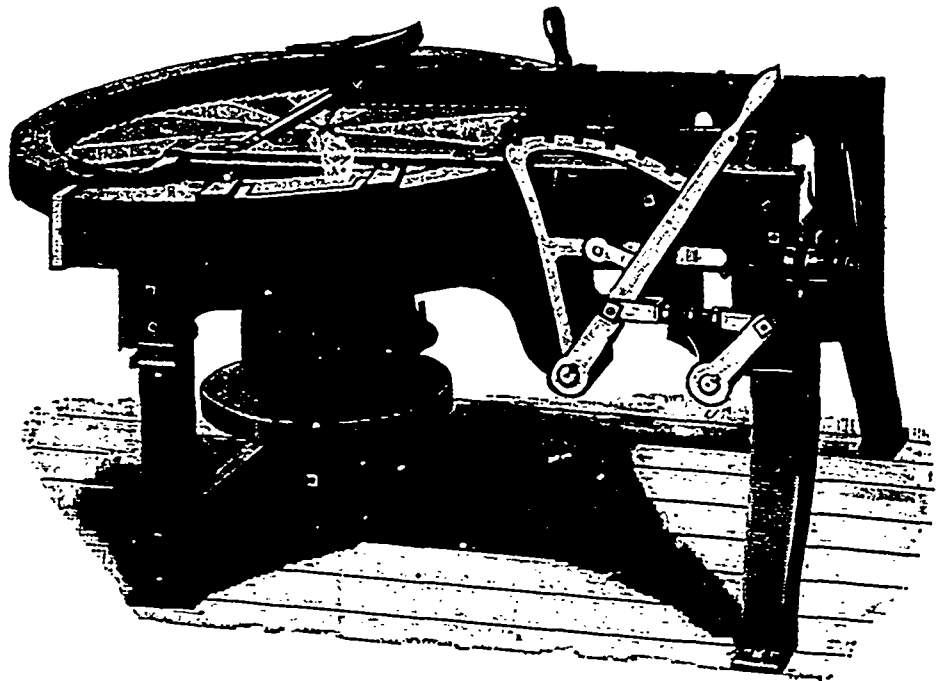
# THE CANADIAN LOCOMOTIVE & ENGINE CO.

KINGSTON

ONTARIO

Manufacture

- Band Saw Mills
- Gang Saw Mills
- Circular Saw Mills
- Portable Saw Mills
- Shingle Mills
- Lath Mills
- Saw Filers, and all of  
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DAUNTLESS SHINGLE AND HEADING MACHINE.  
Size No. 1 takes Saws up to 42" diameter. Size No. 2 takes Saws up to 48" diameter.  
Capacity 25,000 to 50,000 per day.

Our Patterns are New and of Modern Design. We can give you a Complete Outfit and guarantee results. No trouble to quote prices.

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The BEST Article Known for the Purpose

MANUFACTURED BY THE DOMINION LEATHER BOARD CO'Y. - MONTREAL, QUE.

THE PARK, BLACKWELL CO. LIMITED



## Pork and Beef Packers Wholesale Provisions

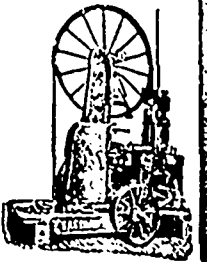
TORONTO

Orders solicited for Pork and Beef Products, Butter, Cheese, Lard, Dried and Evaporated Apples, White Beans, etc., at close quotations.

Mention the CANADA LUMBERMAN when corresponding with Advertisers.

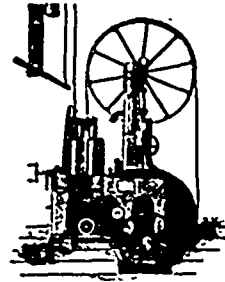
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For a List of the Canadian Saw-Mills using our Band Re-Saws. A number of them are also in use in Canadian Planing Mills and Box Factories.



## THIRTY-TWO MERSHON BAND RE-SAWS

are Running in the Mills in the Saginaw Valley.



### W. B. MERSHON & CO.

SAGINAW - MICH.

# Saw Mill Machinery

ROBT. BELL, JR. HENSALL, ONT.

*Don't you want a new set of Saw-Mill Dogs and a Roller Gauge before you start up this spring? Send for prices.*

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- "Lumber King,"
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OVER 30 YEARS IN THE BUSINESS



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is as Good  
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But some people get More for  
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This certainly is true when applied to  
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Our Machinery is strictly Up-to-Date in every detail, and our Outfits  
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**WE HAVE A REPUTATION AT STAKE AND TAKE NO CHANCES**

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WOOD-WORKING MACHINERY IS OUR STRONG POINT

WE EQUIP MILLS FOR A GUARANTEED OUTPUT

THE MOST COMPLETE WORKS IN CANADA

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1898

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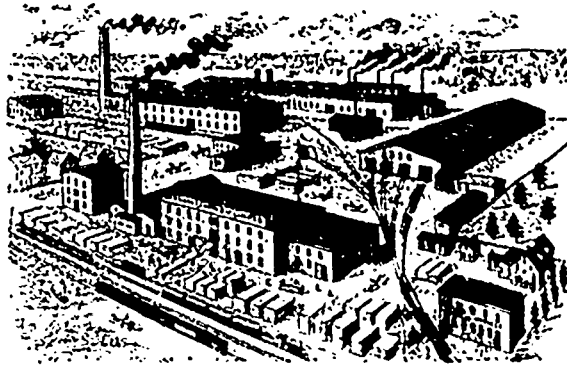
- Saw Mills—**  
Band, Circular and Portable Mills.
- Re-Saws—**  
Circular and Band.
- Steam Acting Machinery—**  
Kickers, Log Rollers, Niggers,  
Jump Saws, Steam Feed and  
Drag Saws.
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Full Assortment.
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Malleable Chain—Steel Chain—  
for all Saw-Mill Work.

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**WATEROUS ENGINE WORKS CO., LIMITED**  
BRANTFORD, CANADA

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## Logging, Lumber and Pulp Cars

General Castings and Forgings

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## Saw Mills Planing Mills

AMHERST, NOVA SCOTIA

## ALEX. DUNBAR & SONS, WOODSTOCK, N. B.

Manufacturers of . . . . .

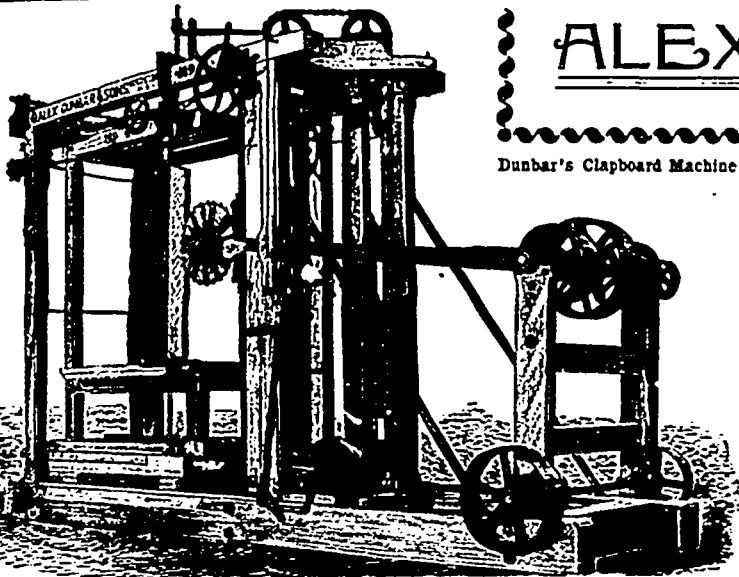
# Saw Mill Machinery

OF ALL KINDS

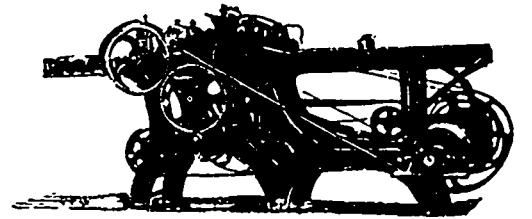
Including ROTARY SAW MILLS (3 sizes), CLAPBOARD SAWING MACHINES, CLAPBOARD PLANING AND FINISHING MACHINERY, SHINGLE MACHINES, STEAM ENGINES, Etc.

Write for Further Particulars.

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Dunbar's Clapboard Machine



Dunbar's Planer.

# Dodge Man'f'g Co.

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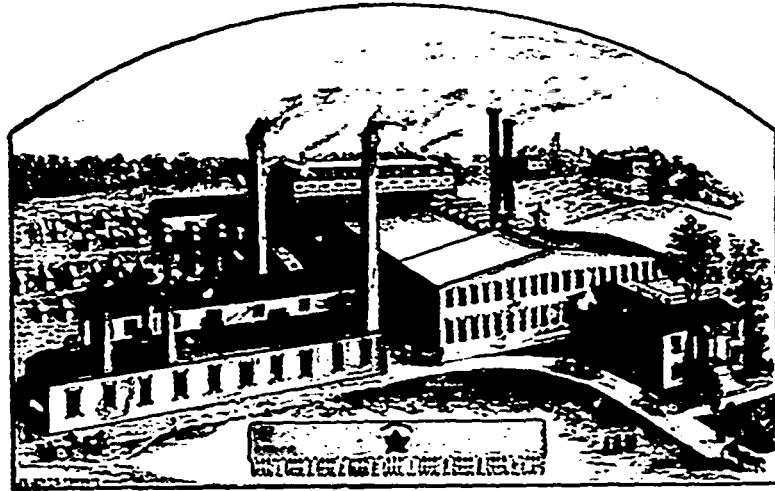
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 SAW WORKS**



**Shurly &  
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Manufacturers of

**CIRCULAR SAWS  
 GANG SAWS  
 MILL SAWS  
 BAND SAWS  
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Manufacturers of

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 Save Labor      Save Gumming  
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**This Saw Stands Without a Rival**

AND IS THE  
**PASTEST CUTTING SAW IN THE WORLD!**

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

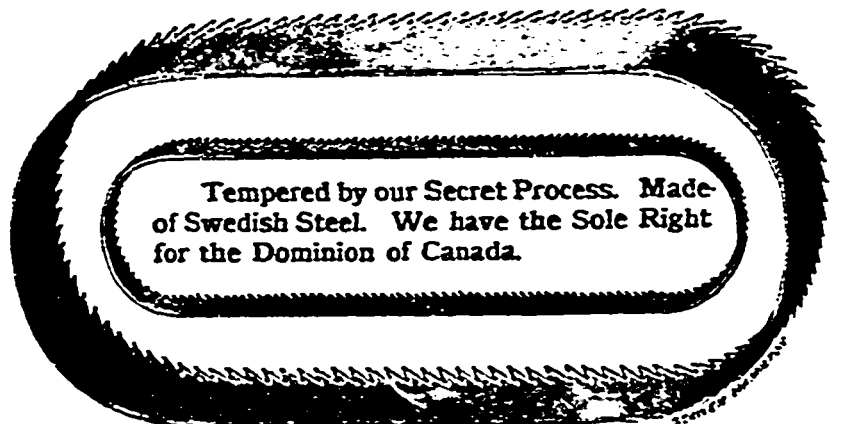
**Maple Leaf Saw Set**

MANUFACTURED BY  
**SHURLY & DIETRICH, Galt, Ont.**

Directions. Place the set on the point of tooth, as shown in the accompanying cut, and strike a very light blow with a tack hammer. If you require more set, file the tooth with more level.  
 If you follow directions you cannot make a mistake. Be sure and not strike too hard a blow, and it will set the hardest saw. On receipt of 40 cents we will send one by mail.



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



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

We Manufacture

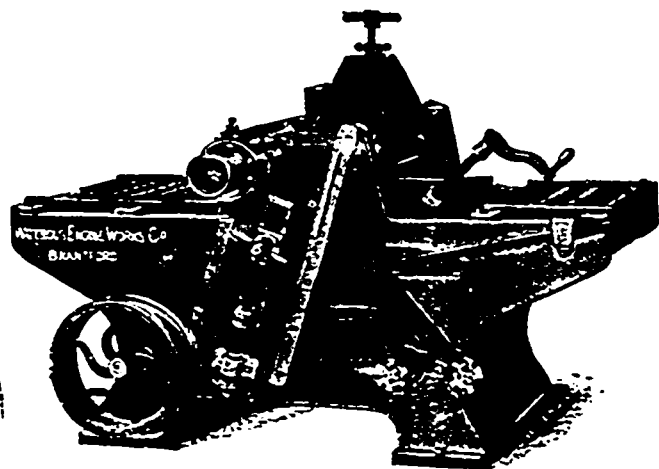
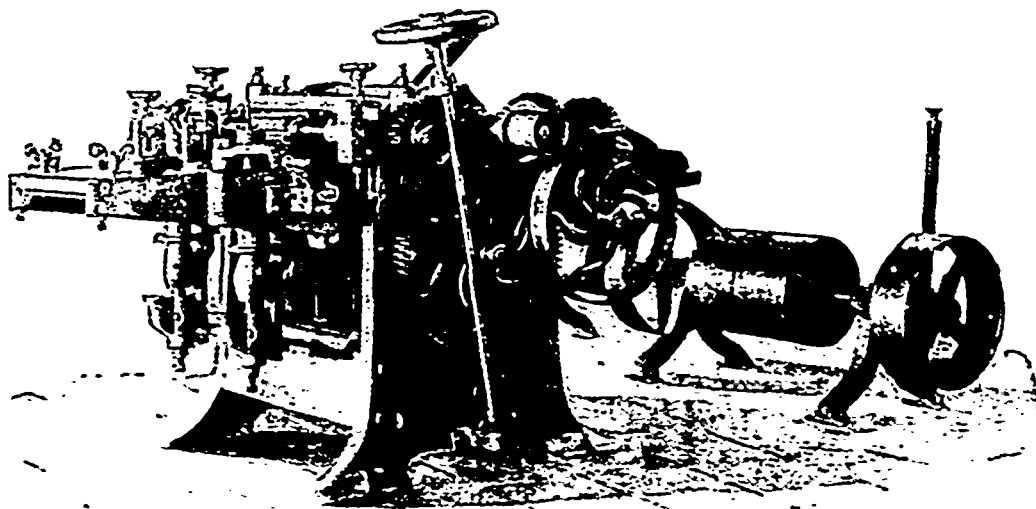
**HIGH GRADE BAND SAWS**

of All Widths and Lengths.

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

# WOOD-WORKING MACHINERY

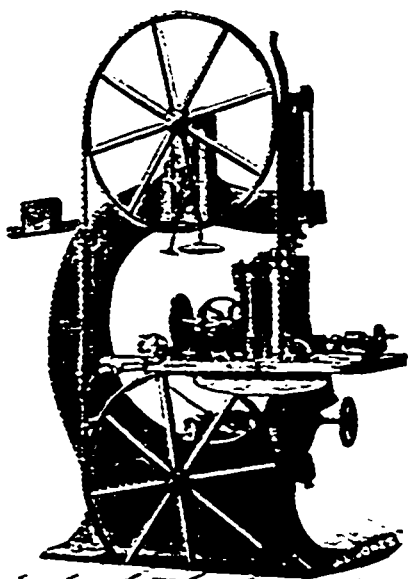
Suitable for  
...Saw Mills



**ENDLESS BED SURFACER**

Single and Double Cylinder—a Positive Fast Feed for Green, Wet or Icy Lumber—Very Suitable for Saw Mills that ship Planed Lumber.

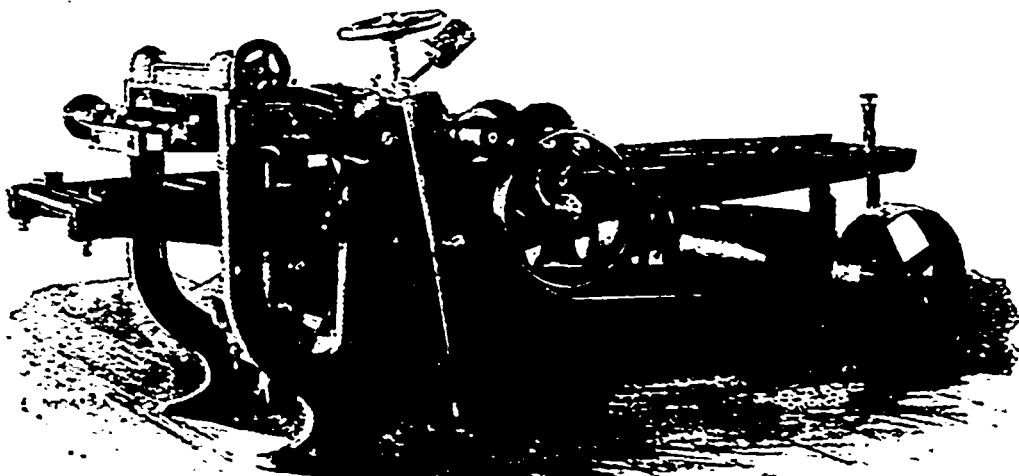
**THE ECONOMIST** PLANER, MATCHER AND MOULDER.—Mandrel Double-Belted—all Feed-Rolls Driven—Strong, Powerful Feed.



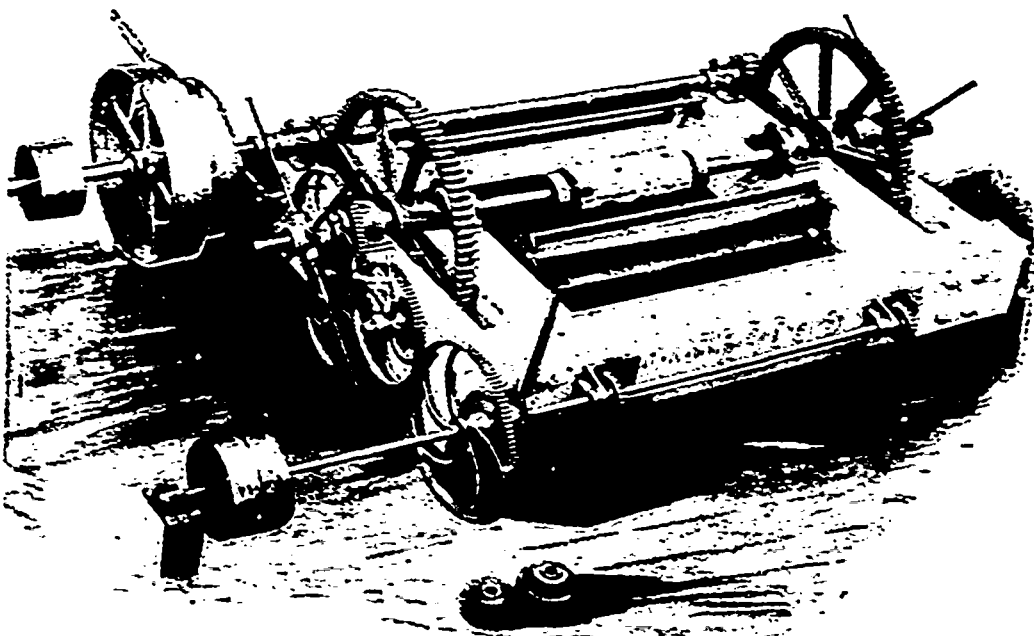
No. 4 BAND RE-SAW.

## Band Re-Saws

from No. 4  
Weight - 2,750  
for  
Planing  
Factories  
to  
No. 8—12,500  
for the  
Heaviest  
Re-Sawing  
in Slabs,  
Deals, &c.



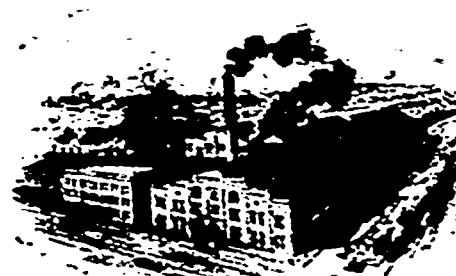
**THE CHAMPION** PLANER, MATCHER AND MOULDER, with Extended Frame and Table.—Mandrel Double Belted all Feed-Rolls Driven—a Heavy, Fast and Very Popular Machine.



**VENEER OR PEELING MACHINE** Shown peeling a very short log.—No. 1 takes a log 5 ft. x 48 in.; No. 2, 6 ft. x 48 in.—Makes any thickness of Veneers—Handles most of the Soft Woods without Steaming—a Very Profitable Addition to a Saw Mill.

EVERYTHING FOR SAW-MILLS—GET OUR QUOTATIONS

ESTABLISHED . . . . . 1844  
INCORPORATED . . . . . 1874  
NEW WORKS OCCUPIED . . . . . 1896



Best Quality of Work.  
Low Prices.

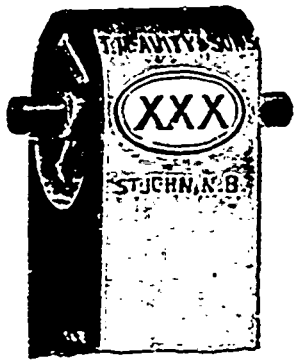
# WATEROUS, Brantford, Canada

# T. McAVITY & SONS

## HEADQUARTERS FOR

# MILL AND LUMBERMEN'S SUPPLIES

### CELEBRATED RUBBER BELTING



**XXX** Brand. Extra Heavy.

Please note that **XXX** Belting does not PEEL, OPEN AT THE SEAM, nor SEPARATE BETWEEN PLIES.

It is used by the largest Mill Owners in the Maritime Provinces, and is giving Excellent Satisfaction.

Send for Descriptive Circular and Price List.

### EMERY WHEELS

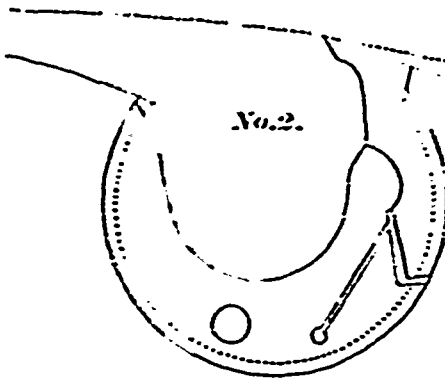


HART'S MAKE AND "RED DIAMOND" BRAND

Will not burn or case-harden the Saws.

These Wheels are considered the MOST DURABLE, Free and Fast Cutting Wheels for Saw Sharpness in the Market.

### GENUINE R. HOE & CO.'S CHISEL TOOTH SAW

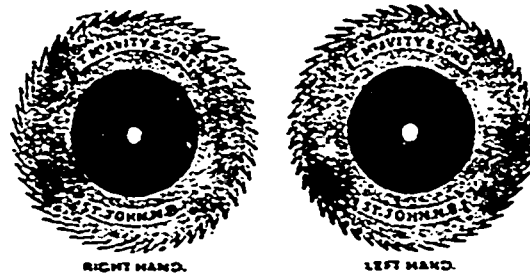


Without doubt the Best Saw in the Market.

There are a great many worthless imitations in the market, but we keep the Genuine Hoe's Saws, made by R. Hoe & Co., of New York.

SEND FOR PRICES.

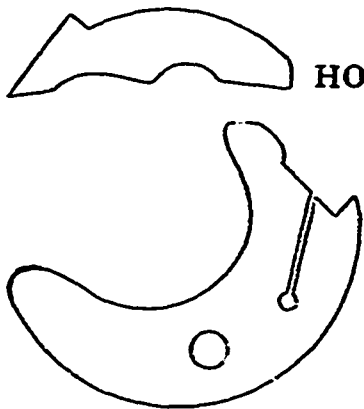
### SHINGLE SAWS.



### SOLID TOOTH

Circular Saws, Mill and Gang Saws in DISSTON'S and other Leading Makes

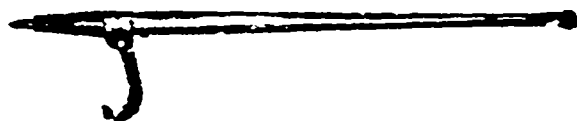
### BITS FOR HOE'S CHISEL TOOTH SAWS



### SHANKS OR HOLDERS FOR HOE'S SAWS

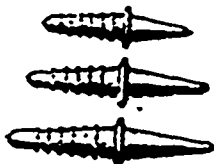
A full stock of Bits and Shanks kept constantly on hand.

### ORONO CANT DOGS



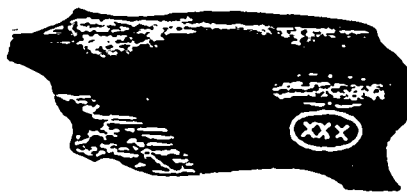
In 5, 5 1/2 and 6 feet. Prices low.

### LUMBER DRIVERS' BOOT CALKS



Made from Best Refined Tool Steel and Forged. Our Calks are stronger and more durable than any other Calk in the market.

### RAW HIDE LACE LEATHER



**XXX** Brand, and "Anchor" Brand, Cut Belt Lacings, etc.

### TRIUMPH NARROW CROSS-CUT SAWS



WITH HANDLES COMPLETE

For cutting down trees these Saws are unexcelled. They are not liable to bind by kerk closing as ordinary saws. Reversible handles.

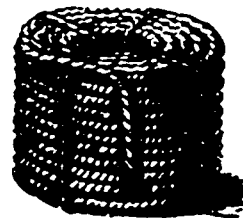
### "BANGOR" RED CHALK

REAL CHALK, NOT GRIT.



A very Superior Quality now in stock.

### LATH AND SHINGLE TIES



Manila and Steel Rope, and Cordage of all kinds.

### BABBITT METALS

IN VARIOUS GRADES.



### CRUCIBLE CAST STEEL PLIABLE WIRE HOISTING ROPE

6 Strands. 23 Wires in each.



Very best make of English Rope, Plain and Galvanized. Prices low.

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67 to 73 Water St.

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MANUFACTURERS OF

## Electrical Machinery and Apparatus

... FOR ...  
**LIGHT and POWER**

SPECIAL ATTENTION GIVEN TO—

**LONG DISTANCE TRANSMISSION OF ELECTRICITY  
FOR LIGHT AND POWER**

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**ELECTRIC PLANTS FOR MILLS**

Distant water powers utilized and Mills lighted and operated safely.

CORRESPONDENCE SOLICITED.



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All the argument in the world in favor of the old fashioned, out-of-date, wooden dry-kiln truck, will not avail against the simple statement of fact that a steel truck is not only infinitely better in every way, but much cheaper, too, in the end. A man's common sense teaches him that. But there's a difference even in steel trucks. **WE CLAIM**, and hundreds of dry kiln users bear out the statement, that

### The Standard Channel Steel Roller Bearing Truck

is the best truck yet devised. Two men can handle the biggest load on it; it cannot break down; heat and dampness of the dry room does not affect it; it will last a lifetime; it never needs repairs; the amount saved in material and repairs alone in one year will more than pay for the entire cost. This is the actual experience of users. No theory about it.

We make 'em for crosswise and endwise piling and for flat and edge stacking.

We furnish them with **THE STANDARD IMPROVED COMPRESSION DRY KILN**, or sell them separately to users of other kilns.

Ask for our New Truck Booklet. It illustrates and describes our different types of steel trucks, and also our steel transfer cars. It contains, too, testimonials from many people who have thrown away their wooden truck and adopted our new steel truck.

### THE STANDARD DRY KILN CO.

195 South Meridian Street,

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## DICK'S ORIGINAL BELTINGS

Enormous  
Transmission  
No Seams or  
Joints



Not Affected  
by  
Dampness  
and No  
Stretching

SOLE AGENT: **J. S. YOUNG**

This is the Only Genuine and Original Balata Belt offered on the market.

15 Hospital Street,  
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PLANS AND SPECIFICATIONS  
FURNISHED WITH EACH  
APPARATUS.

Safe as a "Fire Risk."

ECONOMICAL WITH STEAM  
AND POWER.....



# The McEachern Progressive Lumber Dry Kiln

## Steel Plate Exhaust Fans

DOUBLE AND SINGLE

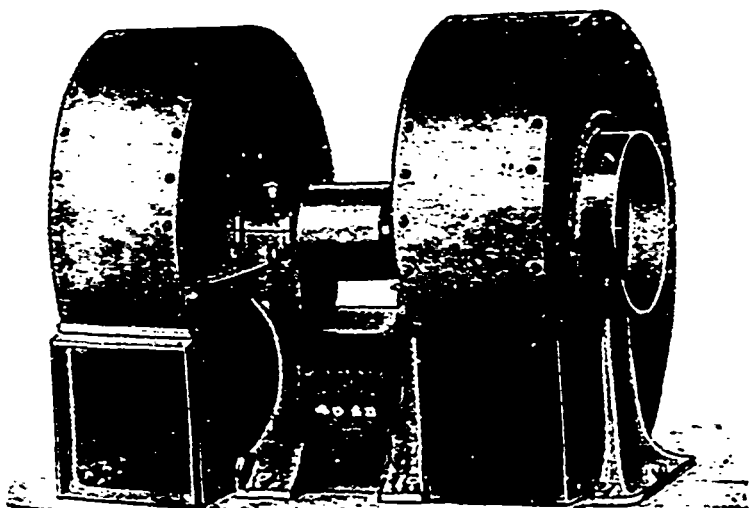
FOR REMOVAL OF REFUSE FROM WOOD-WORKING  
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FORGE AND CUPOLA BLOWERS

VENTILATING FANS, ETC.

Send for Prices and Catalogues.

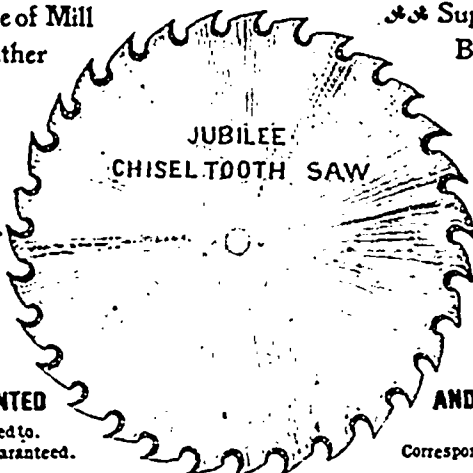
**McEACHERN HEATING & VENTILATING CO. - GALT, ONTARIO**





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Manufacturers of..... Saws of All Description  
 A Full Line of Mill Rubber and Leather Metal, &c., always  
 Supplies, including Belting, Babbit carried in stock.



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**SUPPLIES OF ALL KINDS**

Chains, Ropes, Axes, Files, Bar Iron, Horse Shoes, Peavy Cant Dogs.

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Cor. King and Victoria Sts. - TORONTO.

**Galt Machine Knife Works**



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

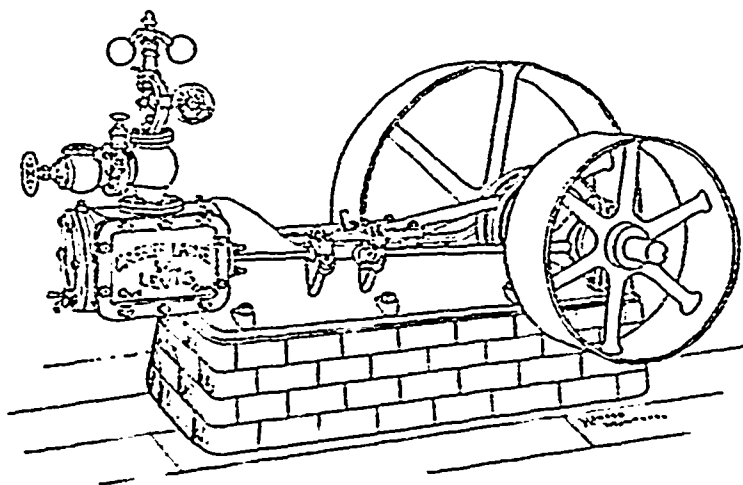
**Notice to Millmen**

THE OXFORD FOUNDRY & MACHINE CO., Oxford, N. S., have rebuilt, and are better prepared to give satisfaction, and would solicit a share of the public's patronage.  
 We manufacture all kinds MILL MACHINERY, also TRAMWAY OUTFITS.

**7 3 10 "DEAD EASY"**

But if that "3" represents Middlemen's commission on the Machinery you buy, you had better make a change and deal at headquarters.

No better Mill Machinery is made in Canada or elsewhere than that supplied "DIRECT" from our Machine Shops.



**Portable and Stationary Engines and Boilers**

CIRCULAR SAW MILL PLANTS  
 GANG AND BAND SAW MILLS  
 SHINGLE MILLS, LATH MILLS

EDGERS, PLANERS and BUTTERS

Modern Patterns in Every Line.

Tools, Belting and Supplies.

We are equipped to build any special machine you may require.

IF YOU HAVE PLANT TO EXCHANGE GET OUR ESTIMATES

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

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