

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

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

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

Cover title missing/
Le titre de couverture manque

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

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

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

Showthrough/
Transparence

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

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

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

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

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

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

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments:/
Commentaires supplémentaires:

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

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

THE CANADA LUMBERMAN

Wood-Workers', Manufacturers' and Millers' Gazette

VOLUME XXII.
NUMBER 12

TORONTO, CANADA, DECEMBER, 1902

TERMS: \$1.00 PER YEAR
Single Copies, 1 Cent

**"REDDAWAY'S"
BALATA
AND
"CAMEL BRAND"
BELTING**



NOT AFFECTED BY DAMPNESS
THE BEST FOR MAIN DRIVES.
MOST DURABLE.

W. A. FLEMING & CO.,
771 CRAIG ST., MONTREAL.
Branch: ST. JOHN, N.B.

THE OTTAWA SAW CO. LIMITED
Middle Street, OTTAWA, ONT.

SANVIK SWEDISH STEEL

BAND, GANG AND CIRCULAR SAWS

P. M. FEENY,
Manager.

There is No Belt Made

That will wear longer, need less repairs, is cut out of better stock, or better able to stand hard work on high speed machinery than the belts made by

J. L. GOODHUE & CO.,
DANVILLE, QUE.

James W. Woods

Wholesale Manufacturer of

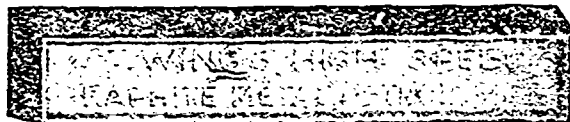
LUMBERMEN'S SUPPLIES

Tents and Tarpaulins made of our special non-absorbent duck. Overalls, Top Shirts, Driving Pants, Shoes and Hats, Underwear, Blankets, Axes, Moccasins, etc.

64-66 QUEEN ST. - - OTTAWA, ONT.

Wing's High Speed **BABBITT METAL** Graphite

Specially recommended and guaranteed for Saw and Pulp Mills, Gasoline and Steam Engines, Dynamos, etc.
A trial order solicited.



NOTHING USELESS PUT IN.

NOTHING USEFUL LEFT OUT.



All our Belting stamped with above trade mark.

SUPERIOR TO ALL OTHERS.

Write for list or samples to

J. S. YOUNG

15 HOSPITAL ST.

MONTREAL

J. J. Turner & Sons

MANUFACTURERS OF

Lumbermen's Tents, Waterproof Horse and Wagon Covers, Feed Bags, Coal Bags and Waterproof Clothing

OF EVERY DESCRIPTION.

PETERBOROUGH, ONT

Send for Catalogue "A."

"ROSSENDALE" M. A. Y. WOVEN

Twice strength of leather. . . More durable. . . 30 per cent cheaper. . . Largest stock in Canada.

Rosendale special Belt Dressing for all kinds of belts

R. H. Buchanan & Co. (692 Craig Street) Montreal

BELTING

MANUFACTURERS OF

**HIGH GRADE
CIRCULAR AND LONG SAWS**

UNEXCELLED

SHINGLE SAWS

OUR INSERTED TOOTH SAW POSITIVELY THE BEST



THE
WM. HAMILTON MFG. CO., LIMITED,
PETERBOROUGH, ONTARIO.



Designers and
Builders..

—of—

New and Modern Saw Mills and
Machinery for same



WE ALSO BUILD

Pulp Mill Machinery,
Samson Leffel Turbine Water Wheels,
Tools for the Care of Saws,
Shingle Machinery, Engines,
Boilers, Etc.



The Wm. Hamilton Mfg. Co., Limited

Branch Office: VANCOUVER, B. C.

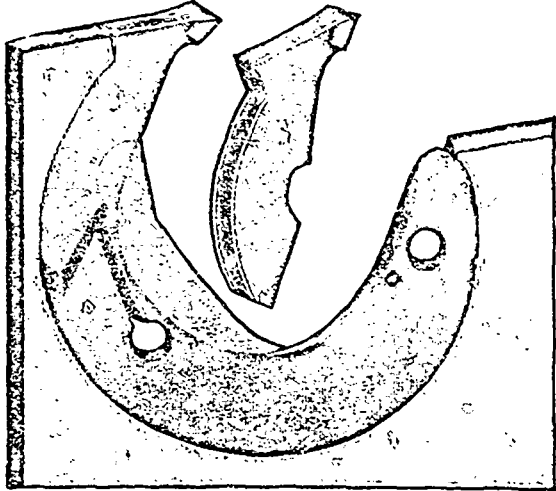
PETERBOROUGH, ONT.

R. H. SMITH CO., LIMITED

— St. Catharines, Ont. —

We are the Sole Manufacturers of Saws **Simond's Process**
under the  in the Dominion of Canada.

There is no process its equal for tempering circular saws. Other makers recognize this fact, as some of them, in order to sell their goods, claim to have the same process. All such Claims are FALSE, as the patentee in the U. S. and ourselves are the only firms in the world who use it.



INSERTED TOOTH SAWS

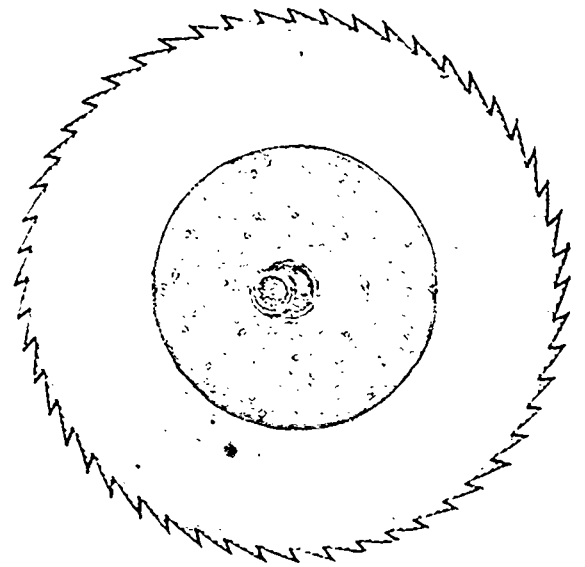
Notice the improved shank. We call particular attention to the swell which strengthens it at the weakest part and which gives it more wear than the old style.

Shanks made in usual gauges and to fit your saws

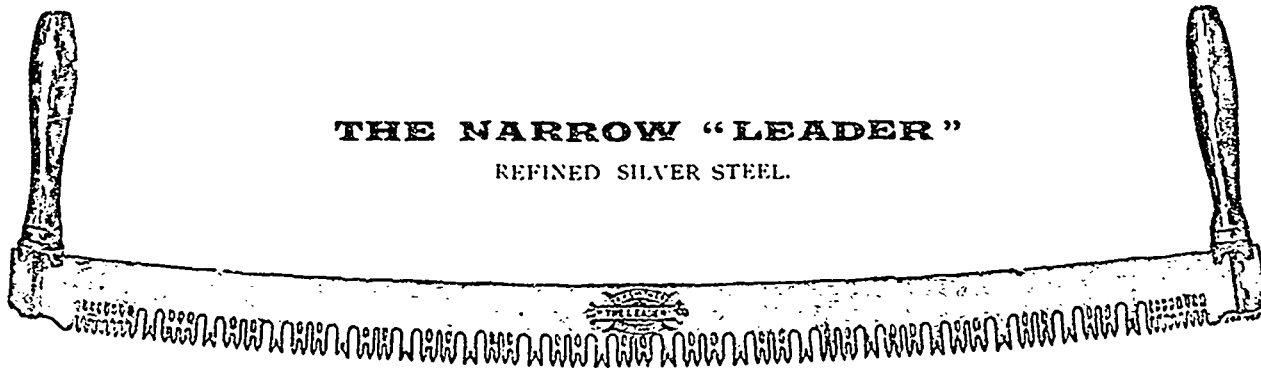
SHINGLE SAWS

The quality of the "Simonds" Shingle Saws is proven by the fact that the largest shingle and machine manufacturers in Canada are using them.

Run a "Simonds" and you will increase your output.



CROSS-CUT SAWS



THE NARROW "LEADER"
REFINED SILVER STEEL.

The Simond's temper and style of tooth make the "Leader" the fastest and easiest cutting saw manufactured.

Write for prices.

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

NICHOLSON FILE CO.

DOMINION WORKS

PORT HOPE, ONT.

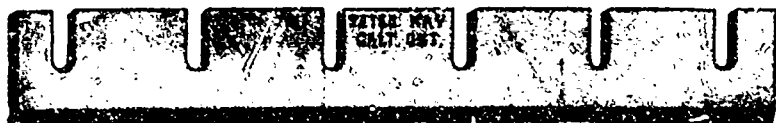
FILES AND RASPS



WARRANTED

The largest manufacturers of Files in the World. For sale by all prominent Dealers

Galt Machine Knife Works



MACHINE KNIVES

OF EVERY DESCRIPTION

FOR

Woodworking Machines

... Send for Price List ...

PETER HAY - - - - - Galt, Ont.

CAMP SUPPLIES . . .

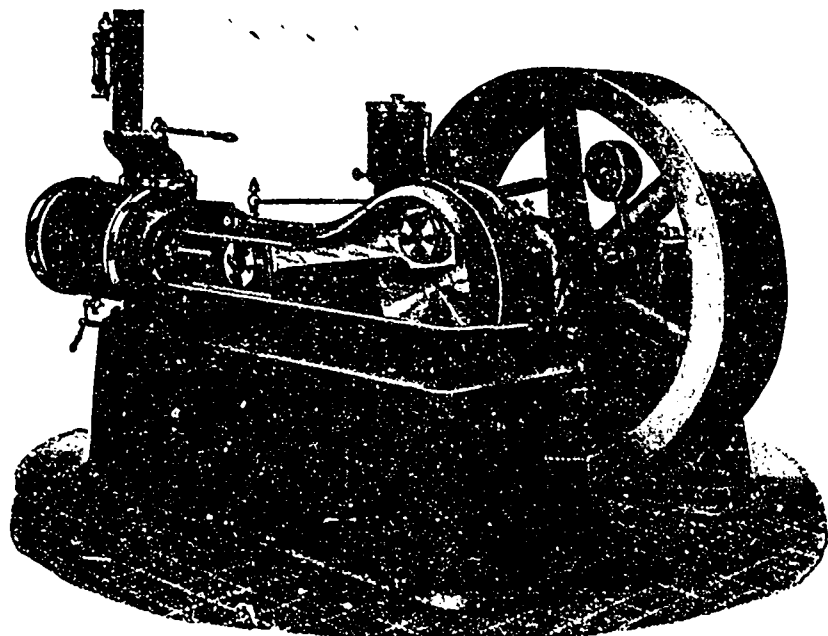
We make a Specialty of Supplies for Lumber Camps.

H. P. ECKARDT & CO.

WHOLESALE GROCERS

Cor Front and Scott St., TORONTO

A Good Record



A Customer says:—

"Your engine has been running day and night for over three years (equal to seven years regular work) and during that time we have never lost a minute through any defect in the engine and have never expended a dollar in repairs. It is still running noiselessly and without vibration."

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

ADAM HALL, Peterboro, Ontario, Canada.

MANUFACTURER OF

STEEL RANGES

For Lumbermen's and Railway Camps, Boarding Houses and Hotels.

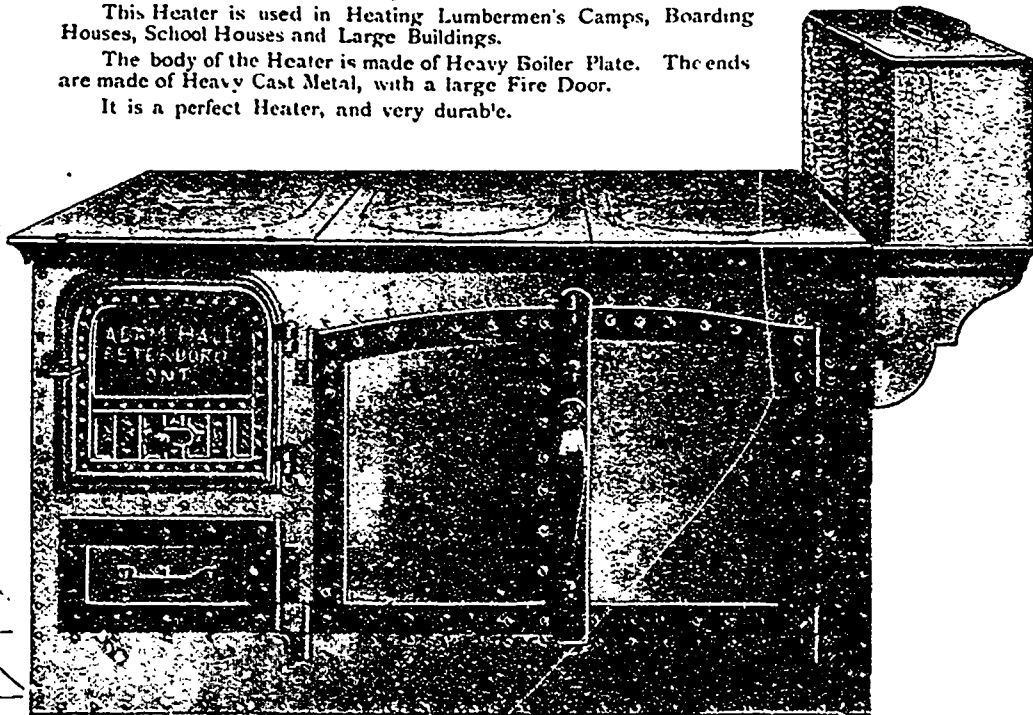
THE LUMBERMAN HEATER.

- 86 Inch Lumberman Heater.
- 42 Inch Lumberman Heater.
- 48 Inch Lumberman Heater.

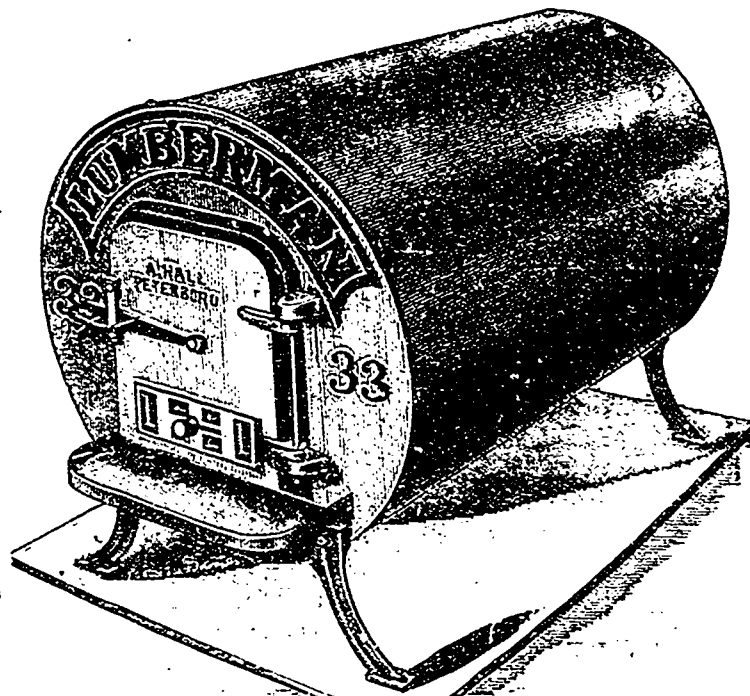
This Heater is used in Heating Lumbermen's Camps, Boarding Houses, School Houses and Large Buildings.

The body of the Heater is made of Heavy Boiler Plate. The ends are made of Heavy Cast Metal, with a large Fire Door.

It is a perfect Heater, and very durable.



Lumbermen's Six Pot Hole Range with Reservoir.



Lumberman Heater.

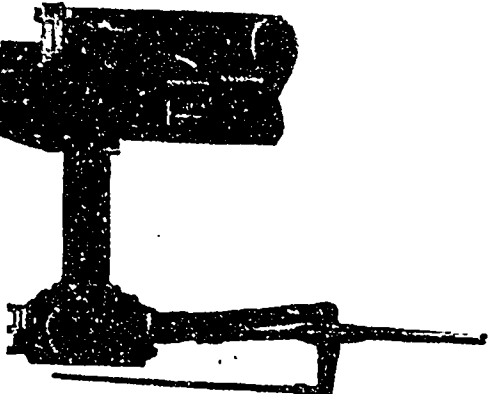
We have been manufacturing Steel Ranges and Heaters for Lumber Camps for the past Twenty-four Years, and have supplied the wants of nearly all the Lumbermen in Quebec, Ontario and Manitoba—they are unexcelled for Baking and Cooking, and are strong and durable.

This No. 10-25 Range with 25 Gallon Copper Reservoir is the one we sell the most of, owing to the convenience of having a supply of hot water at all times. Will cook for 50 men. Weighs 450 pounds.

Write for Catalogue and Price List.

DIRECT ACTING STEAM FEED

We build Steam Feeds of all sizes and... building direct feed with cylinders of... 10 inch, 12 inch and 14 inch bore, and... of all sizes, with and without automa-... of off device. For these feeds, or other... of like character, we furnish the model... valve which is considered to be the best... for the purpose, showing the... at the front end of the feed. This valve... the best known as the... valves... being used at either end of the feed... making a saving over the old sty'e... valve of 15 per cent. In steam. We... pronounce this valve to be... best ever designed. It is absolutely bal-... does not stick or kick, has larger steam openings than any other valve made for correspond-... sizes of pipe, is economical in the use of steam, and handles the largest and longest feeds, under any... pressure with perfect ease and accuracy. We have also designed a new style of stuffing box which is a... in packing, and has an outer support, and is fitted with an oil well, fitted with felt or waste... which keeps the piston thoroughly lubricated.



Improved Double-Tooth or Boss Dogs

The accompanying cuts fully illustrate our Improved Double-Tooth Dogs with inserted teeth, making the teeth themselves of the finest tool steel. This allows them to be drawn to a slender point that will penetrate without crowding the log or board away from the carriage. The teeth in case of bending or breaking can be replaced in a few moments, and without having to take the whole dog case apart - an operation requiring an hour or more.



These Double-Tooth Dogs are controlled by a wrought iron lever that can be bent to suit the operator, and this lever is held by a spring, positively in or out, so that there is no danger of the Dogs pushing out toward the saw. This method of holding the dogs has the merit of being permanent, the ordinary light pawls and connections commonly furnished for this purpose generally lasting but for a few days. Our latest improved carriages are fitted with these dogs.

PRICES QUOTED ON APPLICATION.

THE E. LONG MFG. CO., Orillia, Ont.

"DURHAM"

is the Name of the

BEST RUBBER BELT

We Guarantee Satisfaction Under Hardest Kind of Work

If you use Belts, Hose or Packings we KNOW we can INTEREST YOU.

WRITE TO US FOR FURTHER INFORMATION

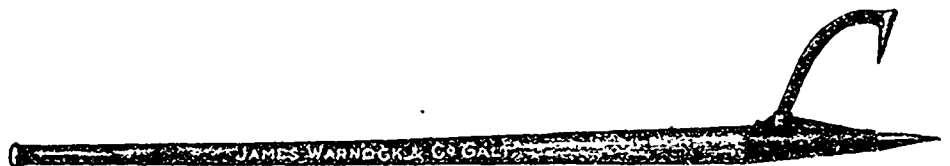
THE DURHAM RUBBER CO. LIMITED BOWMANVILLE, ONT.

High Grade Lumbermen's Tools



For Quality our Tools have no Equal on this Continent.

Our NEW PEAVEY is absolutely Perfect in Design and Quality.

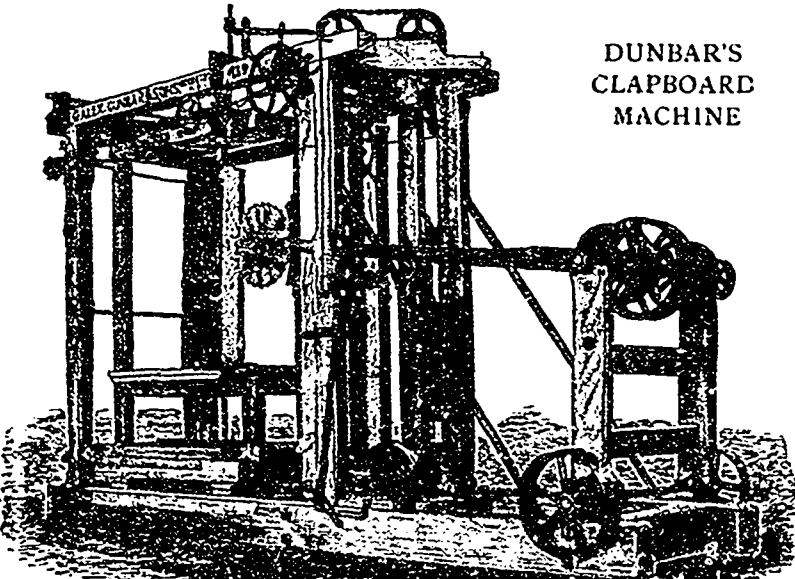


WRITE US FOR PRICE LISTS ON _____

Cant Hooks, Peavies and Axes

Ask for WARNOCK'S and if You Don't Get Them Write Us Direct.

JAMES WARNOCK & CO. - GALT, ONT.



DUNBAR'S CLAPBOARD MACHINE

ALEX. DUNBAR & SONS

Woodstock, N. E.

Manufacturers of

Saw Mill Machinery

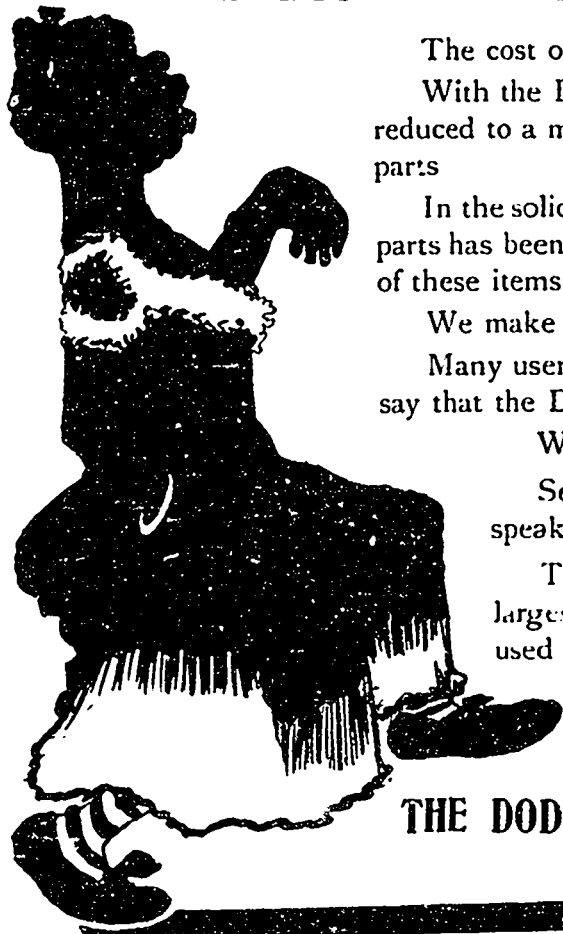
OF ALL KINDS

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

WRITE FOR FURTHER PARTICULARS

ALEX. DUNBAR & SONS - Woodstock, N. B.

CUTS QUITE A FIGURE



The cost of erecting a friction clutch "cuts quite a figure."
 With the Dodge Split Friction Clutch the cost of erection is reduced to a minimum as well as the cost of repair to the wearing parts

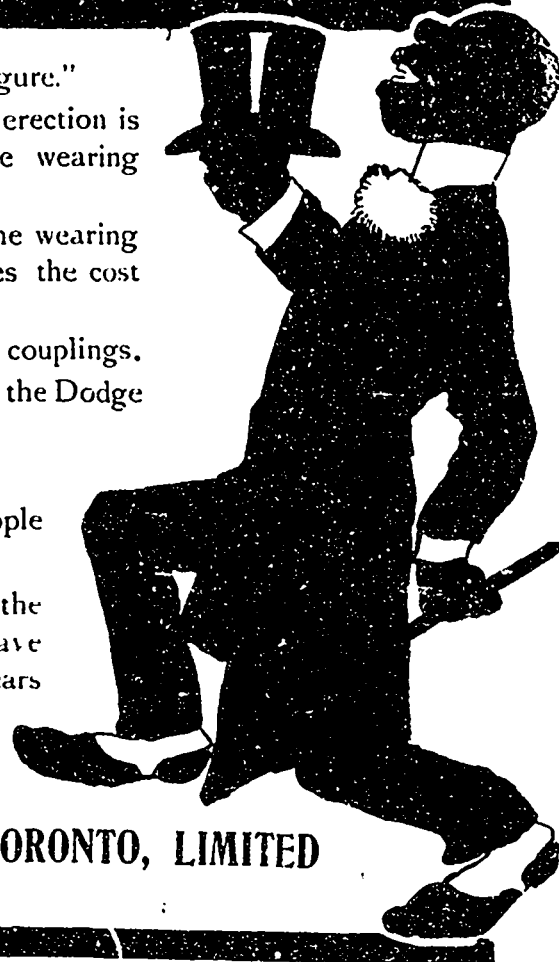
In the solid clutch the cost of erection and repair to the wearing parts has been shown time and time again to be four times the cost of these items in the Dodge Split Friction Clutch.

We make these split friction clutches for pulleys and couplings. Many users who have other makes installed along side the Dodge say that the Dodge is superior to any other make.

We don't ask you to take our word for this.

Send for our booklet, "How good people speak of it"

The booklet gives the opinion of many of the largest concerns in Canada, some of whom have used the Dodge Split Friction Clutch for years without one cent of expense for repairs.



THE DODGE MANUFACTURING CO., OF TORONTO, LIMITED
 TORONTO, ONT.

LARGE STOCK Special Crucible Steel PROMPT SHIPMENT

WIRE ROPE

For Hoisting, Haulage, Alligators, Logging, Etc.

W. H. C. MUSSEN & CO. - MONTREAL

Syracuse Smelting Works

Manufacturers

Babbit Metals
 Solder
 Type Metals
 Phosphor Bronze
 Phosphor Tin
 and all White Metal
 Mixtures
 Canadian made

Importers and Dealers

Pig Tin
 Pig Lead
 Ingot Copper
 Spelter
 Antimony
 Aluminum and
 Bismuth, etc.,
 etc., etc.

CANADIAN WORKS: William and St. Thomas Sts., Montreal.

Head Office, American Works, 34 Gold Street, New York City

Telephone Main 57

WIRE ROPE

For Alligators, Hoisting and Haulage, Boom and Fall Ropes, Etc.
IN STOCK

ALSO

DOMINION DURABLE

Most Flexible Rope Ever Made—Wearing Surface of Hemp
 Strength of Wire—Unexcelled for Transmission Purposes.

THE DOMINION WIRE ROPE CO., LIMITED
 MONTREAL, QUE.

Every Lumberman wants it **35 cents buys it**

Scribner's Lumber and Log Book

BRIMFUL OF EVERY-DAY,
 PRACTICAL INFORMATION

Address
 THE CANADA LUMBERMAN, Toronto



You can get practically twelve good
 Axes to the dozen in buying . . . **Dundas Axes**

DUNDAS AXE WORKS
 Dundas, Ont.

Everything for Power.

WINNIPEG MACHINERY & SUPPLY CO'Y

179-181 Notre Dame Ave. East, WINNIPEG, MAN.

—WHOLESALE DEALERS IN—

Engines and Boilers, Complete Saw-Mill Outfits, Shingle, Lath
 and Edger Machinery, Wood-Working Machinery
 of every description.

Write us. **NEW AND SECOND-HAND.**

THE CANADA LUMBERMAN

VOLUME XXII.
NUMBER 12.

TORONTO, CANADA, DECEMBER, 1902

TERMS, \$1.00 PER YEAR
Single Copies, 1 Cent

FORESTRY REPORT.

The report of the third annual meeting of the Canadian Forestry Association has been distributed within the past month. It contains 130 pages, in addition to a number of interesting and appropriate illustrations, and is carefully compiled. A paper dealing with "The Forest Fires of 1901" furnishes information as to the loss occasioned from this cause in the different provinces, with the plans adopted for preventing them and some detailed suggestions as to the lines upon which such protection should be provided. This paper brings out clearly the

field for operation. Happening to meet in Scotland R. G. Reid, a family connection and then the proprietor of the Newfoundland Railway, Mr. Reid advised him there was ample field for large operations in the almost unknown and unexplored timber areas of Newfoundland. Mr. Miller immediately deputed one of his most experienced timber cruisers to go out to the colony and examine the area in question. A few months later a most favorable report was received and Mr. Miller decided at once to move his plant and outfit from Sweden to Newfoundland. Inside of a year from that

except a surplus of bark and small clippings in excess of that required for the boilers." Most of the machinery is of the most modern type and of Canadian make. The largest mill is built on the Red Indian lake, on a branch line 21 miles off the trunk-line of the Newfoundland Railway and almost in the centre of the colony. A village of dwellings, school house, church, and large stables for horses employed in the lumber woods (and all beautifully white-washed) are grouped about this great mill that runs day and night. Over 300 people are employed here. Mr. Miller brought over



BURNT FOREST IN TEMISKAMING DISTRICT.

great advantage and the comparatively small cost of an efficient system of fire rangers.

The illustration on this page is reproduced from the report.

LUMBERING ON THE NEWFOUNDLAND RAILWAY.

A correspondent at St. John's, Nfld., sends the following interesting information to the Railway and Shipping World:

An immense impetus has been given to the traffic of this road in the past year by the establishment on a very large scale of a saw mill plant by John Miller, a Scotchman, who has for the past 25 years been operating in the spruce and pine forests of Sweden. Two years ago Mr. Miller found that his timber limits were about exhausted in Sweden and that he would have to look about for a new

date he had three large saw mills erected, some 25 miles of branch railways and sidings built, and the largest lumber wharf in the colony constructed at Lewisport, on Notre Dame Bay, on the east coast. His shipments this year it is expected will reach 25,000,000 feet; already some 700 men are employed in the woods cutting logs and operating the mills. It is expected that after this year the average cut will not be less than 40,000,000 feet. As all this lumber is hauled from 50 to 75 miles on the Newfoundland Railway it can be seen that a great impetus must be given to its somewhat limited traffic. The lumber is principally spruce, but a considerable quantity of excellent white pine and tamarac is also turned off the limits. The striking feature of this great plant, says one who has recently seen it, is "that practically nothing is wasted

about 70 Swedes with him, but most of them have gone home or to the west, and the employees now are, with few exceptions, natives of the colony. They are said to make excellent operators in all lines, after a few months' training under the experienced managers who have long been in Mr. Miller's employ in Sweden. The largest portion of the cut is deals. Material not large enough for deals is cut into pickets, box shooks, laths, and a variety of other small dimension stuff. Mr. Miller claims that barring fires he has limits that will yield a yearly cut of 40,000,000 feet for 50 years. The Red Indian lake on which the mill is situated is over 40 miles long and about an average of three-quarters of a mile wide. Outside Mr. Miller's people there is not a habitation or a settler within many miles. He already has one steamer plying on this lake and another one about ready to launch.

BONUSES FOR TIMBER LIMITS

List of the Public Sales Held by the Ontario Government Within the Past Fifteen Years.

Inquiries received from time to time regarding timber limits that have been placed under license by the Ontario Government prompted the compilation of the accompanying list. It includes, we believe, all the limits in Ontario that have been sold by public auction within the past fifteen years. In addition, a few berths of minor importance have been disposed of by private tender, these consisting chiefly of timber damaged by fire.

The list of sales, as arranged below, may be found useful for reference. The figures are interesting at least as showing the gradual appreciation in the value of pine timber lands. The berths enumerated represent a return to the government for bonuses alone of \$6,195,021.74. Some of these berths have been lumbered; others still remain in their original state. In any event, there has been a large additional revenue to the Government from stumpage dues and ground rent.

SALE OF DECEMBER 15, 1887.

	Total Price.
Biggar Tp., berth 1, 20 3/8 sq. miles, at \$3,100 per mile, Thos. and William Murray, Pembroke, purchasers	\$ 63,162.50
Biggar Tp., berth 2, 11 1/8 sq. miles, at \$3,100 per mile, T. H. Moffat, Pembroke	34,487.50
Bishop Tp., berth 1, 13 1/8 sq. miles, at \$2,100 per mile, Wm. Cook, Toronto	28,218.75
Ballantyne Tp., berth 1, 22 3/8 sq. miles, at \$5,500 per mile, Albert Pace, Osceola	123,062.50
Ballantyne Tp., berth 2, 14 sq. miles, at \$2,350 per mile, Martin Brennan	32,900.00
Ballantyne Tp., berth 3, 19 3/8 sq. miles, at \$2,600 per mile, Jos. Riopelle, Ottawa	49,725.00
Ballantyne Tp., berth 4, 12 1/8 sq. miles, at \$850 per mile, Thomas Mackay, Pembroke	10,306.25
Butt Tp., berth 1, 16 1/8 sq. miles, at \$600 per mile, Alex. Fraser, Westmeath	13,725.00
Chisholm Tp., berth 1, 22 sq. miles, at \$3,000 per mile, Robert Thomson	66,000.00
Canisbay Tp., berth 1, 2 3/8 sq. miles at \$500 per mile, Alex. Barnett, Renfrew	1,312.50
Devine Tp., berth 1, 17 sq. miles, at \$4,300 per mile, Alex. Fraser, Westmeath	73,100.00
Devine Tp., berth 2, 13 1/8 sq. miles, at \$2,100 per mile, Alex. Fraser, Westmeath	28,350.00
Devine Tp., berth 3, 11 sq. miles, at \$4,200 per mile, Alex. Fraser, Westmeath	46,200.00
Devine Tp., berth 4, 11 1/8 sq. miles, at \$3,000 per mile, Alex. Fraser, Westmeath	34,875.00
Hunter Tp., berth 1, 16 1/8 sq. miles, at \$3,500 per mile, Alex. Barnett, Renfrew	57,550.00
Hunter Tp. berth 2, 12 1/8 sq. miles, at \$4,600 per mile, Alex. Fraser, Westmeath	55,775.00
Livingstone Tp., berth 1, 8 sq. miles, at \$6,350 per mile, Calahan & Montrose, Alpena, Mich.	50,800.00
Livingstone Tp., berth 2, 13 1/8 sq. miles, at \$4,200 per mile, Albert Pack, Osceola, Mich.	55,550.00
Livingstone Tp., berth 3, 11 1/8 sq. miles, at \$3,400 per mile, P.H. Spohn	37,825.00
Livingstone Tp., berth 4, 9 sq. miles, at \$2,100 per mile, N. Dymont	18,900.00
Livingstone Tp., berth 5, 8 3/8 sq. miles, at \$800 per mile, W. J. Smith	6,700.00
Livingstone Tp., berth 6, 9 sq. miles, at \$800 per mile, N. Dymont	7,200.00
Livingstone Tp., berth 7, 7 3/8 sq. miles, at \$1,350 per mile, N. Dymont	10,462.50
Lawrence Tp., berth 1, 15 sq. miles, at \$3,300 per mile, Alex. McArthur	49,500.00

McLaughlin Tp., berth 1, 17 1/8 sq. miles, at \$3,400 per mile, Alex. Barnett, Renfrew	\$ 58,625.00
McLaughlin Tp., berth 2, 12 1/8 sq. miles, at \$4,400 per mile, Alex. Barnett	55,000.00
McClintock Tp., berth 1, 14 sq. miles, at \$2,500 per mile, Isaac Cockburn, Gravenhurst	35,000.00
McClintock Tp., berth 2, 12 sq. miles, at \$2,500 per mile, Longford Lumber Co.	30,000.00
McClintock Tp., berth 3, 8 3/8 sq. miles, at \$2,300 per mile, Longford Lumber Co.	20,125.00
McClintock Tp., berth 4, 10 1/8 sq. miles, at \$2,000 per mile, Isaac Cockburn, Gravenhurst	20,500.00
McClintock Tp., berth 5, 9 1/8 sq. miles, at \$1,600 per mile, Isaac Cockburn, Gravenhurst	14,800.00
McClintock Tp., berth 1, 1 3/8 sq. miles, at \$1,050 per mile, Longford Lumber Co.	11,550.00
Pentland Tp., berth 6, 11 sq. miles, Wm. Mackie, Ottawa	400.00
Wilkes Tp., berth 1, 13 1/8 sq. miles, at \$900 per mile, Wm. Mackie, Ottawa	12,375.00
Wilkes Tp., berth 2, 15 1/8 sq. miles, at \$1,700 per mile, Wm. Mackie, Ottawa	26,350.00
Wilkes Tp. berth 3, 17 1/8 sq. miles, at \$4,000 per mile, T. H. Moffat, Pembroke	71,000.00
Nightingale Tp., berth 1, 1 3/8 sq. miles, at \$600 per mile, Thomas Murray, Pembroke	975.00
Total	\$1,312,712.50

SALE OF DECEMBER 11, 1888.

Ballantyne Tp., berth 2, 14 sq. miles, at \$2,750 per mile, Donald McMaster, of Alexander	\$ 38,500.00
(This berth was sold on December 15, 1887, but the purchaser failed to comply with the conditions of sale.)	

SALE OF OCTOBER 1, 1890.

RAINY RIVER DISTRICT.

Berth 1, 23 sq. miles at \$1,075 per mile, R. Thomson	\$ 24,725.00
Berth 2, 4 sq. miles at \$2,450 per mile, George Wilkes	9,800.00
Berth 3, 10 sq. miles at \$1,000 per mile, J. L. Murphy	10,000.00
Berth 4, 13 sq. miles at \$850 per mile, J. L. Murphy	11,050.00
Berth 5, 10 sq. miles at \$750 per mile, George Wilkes	7,500.00
Berth 6, 35 sq. miles at \$300 per mile, J. L. Murphy	10,500.00
Berth 7, 6 sq. miles at \$1,350 per mile, J. L. Murphy	8,100.00
Berth 8, 5 sq. miles at \$530 per mile, W. H. Leavitt	2,650.00
Berth 9, 1 sq. mile at \$900 per mile, W. H. Leavitt	900.00
Berth 10, 3 sq. miles at \$1,000 per mile, J. L. Murphy	3,000.00
Berth 12, 3 sq. miles at \$2,000 per mile, J. L. Murphy	6,000.00
Berth 13, 7 sq. miles at \$4,715 per mile, W. Ross	33,005.00
Berth 14, 1 sq. mile at \$700 per mile, W. Ross	700.00
Berth 15, 4 sq. miles at \$3,600 per mile, W. Ross	14,400.00
Berth 19, 11 sq. miles at \$5,225 per mile, L. B. Montgomery	57,475.00
Berth 20, 5 sq. miles at \$1,875 per mile, L. B. Montgomery	9,375.00
Berth 21, 4 sq. miles at \$1,700 per mile, L. B. Montgomery	6,800.00
Berth 25, 11 sq. mile at \$1,650 per mile, L. B. Montgomery	18,150.00
Berth 28, 6 sq. miles at \$2,550 per mile, H. L. Lovering	15,300.00
Berth 29, 1 sq. mile at \$1,300 per mile, W. C. Cameron	1,300.00
Berth 30, 10 sq. miles at \$7,000 per mile, W. C. Cameron	70,000.00

Berth 31, 5 sq. miles at \$5,500 per mile, W. C. Cameron	\$ 27,500.00
Berth 32, 7 sq. miles at \$2,100 per mile, W. C. Cameron	14,700.00
Berth 33, 2 sq. miles at \$450 per mile, W. C. Cameron	900.00
Berth 34, 9 sq. miles at \$4,200 per mile, W. C. Cameron	37,800.00
Berth 35, 4 sq. miles at \$2,200 per mile, W. C. Cameron	8,800.00
Berth 38, 14 sq. miles at \$11,530 per mile, S. F. McKinnon	161,420.00
Berth 39, 12 sq. miles at \$8,700 per mile, S. F. McKinnon	104,400.00
Berth 60, 5 sq. miles at \$1,375 per mile, W. C. Cameron	6,875.00
Berth 63, 2 28-100 sq. miles at \$845.50 per mile, H. L. Lovering	17,140.00

THUNDER BAY.

Berth 1, 12 sq. miles at \$3,500 per mile, S. F. McKinnon	42,000.00
Berth 2, 7 sq. miles at \$1,250 per mile, M. H. Ford	8,750.00
Berth 3, 6 3/8 sq. miles at \$2,250 per mile, M. H. Ford	15,187.50
Berth 4, 8 1/8 sq. miles at \$2,250 per mile, M. H. Ford	18,562.50
Berth 5, 19 1/8 sq. miles at \$400 per mile, P. Ryan	7,800.00
Berth 8, 37 1/8 sq. miles at \$550 per mile, Sadler, Dundas & Co.	20,625.00

ALGOMA DISTRICT.

Aweres Tp., 18 1/8 sq. miles at \$2,525 per mile, McArthur Bros.	46,712.50
Total	\$859,909.24

SALE OF OCTOBER 13, 1892.

Biggar Tp., berth 3, 13 1/8 sq. miles at \$4,000 per mile, J. McCoy	\$ 53,000.00
Butt Tp., berth 2, 13 1/8 sq. miles at \$1,200 per mile, Hale & Booth	16,500.00
Butt Tp., berth 3, 12 sq. miles at \$500 per mile, T. Murray, Pontiac	6,000.00
Butt Tp., berth 4, 11 1/8 sq. miles at \$1,600 per mile, T. Murray, Pontiac	18,800.00
Butt Tp., berth 5, 11 1/8 sq. miles at \$1,250 per mile, T. Murray, Pontiac	14,062.50
Butt Tp., berth 6, 11 sq. miles at \$1,150 per mile, T. Murray, Pontiac	12,650.00
Finlayson Tp., berth 1, 10 1/8 sq. miles, at \$1,800 per mile, G. W. Pack, Alpena, Mich.	18,450.00
Finlayson Tp., berth 1, 10 1/8 sq. miles at \$4,400 per mile, Beck Manufacturing Co., Pentanguishene	47,300.00
Finlayson Tp., berth 3, 10 sq. miles at \$600 per mile, J. D. Shier, Bracebridge	6,000.00
Finlayson Tp., berth 4, 11 sq. miles at \$4,100 per mile, J. Baird	45,100.00
Finlayson Tp., berth 5, 11 sq. miles at \$1,450 per mile, C. A. Millener	15,950.00
Finlayson Tp., berth 6, 10 1/8 sq. miles at \$1,300 per mile, J. Waldie, Toronto	13,975.00
Finlayson Tp., berth 7, 11 sq. miles at \$2,800 per mile, Hill & Wells, Michigan	30,800.00
Finlayson Tp., berth 8, 11 sq. miles at \$3,200 per mile, C. Cameron	35,200.00
Hunter Tp. berth 3, 17 sq. miles at \$12,700 per mile, Gilmour & Co., Trenton	215,900.00
Hunter Tp., berth 4, 11 1/8 sq. miles at \$7,000 per mile, Gilmour & Co., Trenton	82,250.00
Hunter Tp., berth 5, 12 1/8 sq. miles at \$2,650 per mile, John Drynan	32,462.50
McCraney Tp., berth 11, 11 1/8 sq. miles at \$4,750 per mile, J. Baird	53,437.50
McCraney Tp., berth 2, 11 1/8 sq. miles at \$1,800 per mile, A. McArthur	20,250.00
McCraney Tp., berth 3, 11 1/8 sq. miles at \$900 per mile, Beck Mfg. Co., Pentanguishene	10,350.00
McCraney Tp., berth 4, 11 1/8 sq. miles at \$1,800 per mile, A. McArthur	20,250.00
McCraney Tp., berth 5, 15 3/8 sq. miles at \$2,700, J. Waldie, Toronto	42,525.00
McCraney Tp., berth 6, 15 sq. miles at \$4,100 per mile, J. Waldie, Toronto	61,500.00
McLaughlin Tp., berth 3, 15 1/8 sq. miles at \$4,900 per mile, Gilmour & Co., Trenton	74,725.00
Paxton Tp., berth 1, 10 1/8 sq. miles at \$1,000 per mile, W. Milne, Ethel	10,750.00
Paxton Tp., berth 2, 11 1/8 sq. miles at 1,000 per mile, A. McArthur	11,500.00
Paxton Tp., berth 3, 11 sq. miles at \$1,000 per mile, A. McArthur	11,000.00

Peck Tp., berth 4, 11 1/2 sq. miles at \$400 per mile, John Gray	\$ 85,100.00
Peck Tp., berth 5, 16 1/2 sq. miles at \$570 per mile, John Gray	94,050.00
Peck Tp., berth 6, 16 1/2 sq. miles at \$7,000 per mile	115,500.00
Peck Tp., berth 1, 9 1/4 sq. miles at \$2,600 per mile, Gilmour & Co., Trenton	24,050.00
Peck Tp., berth 2, 10 1/2 sq. miles at \$5,000 per mile, Gilmour & Co., Trenton	61,950.00
Peck Tp., berth 3, 11 1/4 sq. miles at \$3,500 per mile, Gilmour & Co., Trenton	39,375.00
Peck Tp., berth 4, 7 sq. miles at \$2,700 per mile, N. Dymont	18,900.00
Peck Tp., berth 5, 8 1/2 sq. miles at \$3,400 per mile, Hill & Wells, Michigan	28,900.00
Peck Tp., berth 6, 11 1/4 sq. miles at \$17,000 per mile, Gilmour & Co., Trenton	205,625.00
MacLennan Tp., berth 49, 13 sq. miles at \$4,400 per mile, Hall & Emery	57,200.00
Algoma district, Lumsden Tp., 31 1/4 sq. miles at \$3,100 per mile, C. Campbell	96,875.00
Algoma district, Morgan Tp., 35 1/4 sq. miles at \$10,600 per mile, G. Pack, Alpena, Mich.	373,650.00
Algoma district, Morgan Tp., berth west side Pogamasing Lake, 4 sq. miles at \$7,400 per mile, W. Stewart	29,600.00
Thunder Bay district adjoining Pardee Tp., berth 1, 12 sq. miles at \$2,800, J. F. Coleman	33,600.00

RAINY RIVER DISTRICT.

Berth 1, north of Turtle and Burnt Lakes and south of White Pine Lake, 15 sq. miles at \$720, C. Cameron	10,800.00
Berth 27, east side of Manitou River, running into Rainy River, 7 sq. miles at \$550 per mile, G. J. Grant	3,850.00
Berth 36, Nameukon river, 24 sq. miles at \$400 per mile, W. Ross	9,600.00
Berth 64, situated on Turtle Lake, 13 sq. miles at \$775 per mile, S. F. McKinnon	10,075.00
Berth 65, on Turtle Lake, 7 sq. miles at \$475 per mile, G. J. Grant	3,325.00
Berth 66, east side of Clearwater Lake, 8 sq. miles at \$775 per mile, J. Drynan	6,200.00
Berth 67, north side Clear Lake, 1 1/2 sq. miles at \$975 per mile, G. J. Grant	1,462.50
Berth 68, on Mink and Pigeon Lakes, 4 sq. miles at \$475 per mile, G. J. Grant	2,900.00
Berth 69, on Martin Lake, 16 sq. miles at \$950 per mile, C. Cameron	15,200.00
Total	\$2,295,475.00

SALE OF AUGUST 18, 1897.

Rathbun Tp., berth 1, 6 1/2 sq. miles at \$800 per mile, C. Beck, Penetanguishene	\$ 5,200.00
Rathbun Tp., berth 2, 6 1/2 sq. miles at \$1,000 per mile, John Waldie, Victoria Harbor Lumber Co.	6,500.00
Rathbun Tp., berth 3, 8 1/4 sq. miles at \$1,050 per mile, C. Beck, Penetanguishene	8,662.50
Rathbun Tp., berth 4, 7 1/2 sq. miles at \$500 per mile, C. Beck, Penetanguishene	3,750.00
Kelly Tp., berth 1, 7 1/2 sq. miles at \$1,375 per mile, John Collins	10,312.50
Kelly Tp., berth 2, 7 1/2 sq. miles at \$2,350 per mile, Holland & Emery Lumber Co	17,625.00
Kelly Tp., berth 3, 7 3/4 sq. miles at \$900 per mile, Georgian Bay Lumber Co.	6,975.00
Kelly Tp., berth 4, 7 1/2 sq. miles at \$3,400 per mile, Georgian Bay Lumber Co.	25,500.00
Davis Tp., berth 3, 8 sq. miles at \$425 per mile, M. Brennan & Sons	3,400.00
Scadding Tp., berth 1, 7 1/4 sq. miles at \$1,500 per mile, Robert Connolly	11,625.00
Scadding Tp., berth 2, 7 sq. miles at \$2,000 per mile, C. G. Marlatt, Oakville	14,000.00
Hanmer Tp., berth 1, 6 sq. miles at \$2,700 per mile, Mr. Band	16,200.00
Hanmer Tp., berth 3, 7 3/4 sq. miles at \$550 per mile, Robert Thomson & Co	4,262.50
Hanmer Tp., berth 4, 7 3/4 sq. miles at \$6,600 per mile, Thomas Hale, Pembroke	51,150.00
Algoma district, North part of Coffin additional, 8 1/2 sq. miles at \$300 per mile, A. E. Dymont, Thessalon	2,550.00
Hess Tp., berth 1, 6 sq. miles at \$1,100 per mile, C. McCool, Geneva Lake	6,600.00
Hess Tp., berth 2, 2 sq. miles at \$550 per mile, C. McCool, Geneva Lake	1,100.00
Block 6, on Spanish and Biscotasing waters, 1/2 sq. mile, Thomas Sadler, Lindsay	450.00

Block 7, on Spanish and Biscotasing waters, 1 sq. mile at \$2,100 per mile, J. W. Munro, Pembroke	\$ 2,100.00
Block 8, on Spanish and Biscotasing waters, 1 sq. mile at \$750, Robert Thomson & Co.	750.00
Block 9, on Spanish and Biscotasing waters, 1/4 sq. mile, J. W. Munro	1,000.00
Block 10, on Spanish and Biscotasing waters, 25 sq. miles at \$1,150 per mile, Booth & Shannon, Pembroke	28,750.00
Block Z, on Spanish and Biscotasing waters, 12 sq. miles at \$3,100 per mile, Thomas Long	37,200.00
Total	\$265,662.50

SALE OF DECEMBER 20, 1899.

ALGOMA DISTRICT.

Bowell Tp., berth 1, 7 1/2 sq. miles at \$4,100 per mile, F. Cochrane, Sudbury	\$ 30,750.00
Bowell Tp., berth 2, 9 sq. miles at \$1,300 per mile, W.J. Sheppard, Waubesa	11,700.00
Bowell Tp., berth 3, 13 1/2 sq. miles at \$100 per mile, Dr. Spohn, Penetanguishene	1,350.00
Foy Tp., 36 sq. miles at \$500 per mile, Booth & Shannon, Pembroke	18,000.00
Harty Tp., berth 1, 9 sq. miles at \$2,200 per mile, Victoria Harbor Lumber Co., Toronto	19,800.00
Harty Tp., berth 2, 9 sq. miles at \$2,300 per mile, Victoria Harbor Lumber Co., Toronto	20,700.00
Harty Tp., berth 3, 10 sq. miles at \$3,600 per mile, Thos. Mackie, Pembroke	36,000.00
Harty Tp., berth 4, 10 sq. miles at \$7,200 per mile, Thos. Mackie, Pembroke	72,000.00
Lumsden Tp., 31 sq. miles at \$2,400 per mile, F. Cochrane, Sudbury	74,400.00
Ryan Tp., 28 sq. miles at \$675 per mile, John Collins, Sault Ste. Marie	18,900.00
Block A, comprising north-west part of the township of Craig, 40 sq. mile at \$700 per mile, Booth & Shannon, Pembroke	28,000.00
Moncreiff Tp., 2 sq. miles at \$200 per mile, T. M. Kirkwood, Sudbury	400.00

NIPISSING DISTRICT.

Davis Tp., berth 4, 8 sq. miles at \$100 per mile, George Gordon, Pembroke	800.00
Norman Tp., berth 1, 7 sq. miles at \$3,600 per mile, C. Beck, Penetanguishene	25,200.00
Norman Tp., berth 2, 5 1/2 sq. miles at \$7,000 per mile, C. Beck, Penetanguishene	38,500.00
Norman Tp., berth 3, 9 sq. miles at \$8,500 per mile, G. G. S. Lindsay, Toronto	76,500.00
Norman Tp., berth 4, 9 sq. miles at \$3,700 per mile, H. H. Cook, Toronto	33,300.00
Capreol Tp., berth 1, 9 sq. miles at \$5,000 per mile, George Gordon, Pembroke	45,000.00
Capreol Tp., berth 2, 9 sq. miles at \$4,400 per mile, Holland & Emery Lumber Co.	39,600.00
Capreol Tp., berth 3, 9 1/2 sq. miles at \$6,600 per mile, J.W. Munro, Pembroke	62,700.00
Widdifield Tp., berth 1, 4 sq. miles at \$2,300 per mile, P. McDermott, South River	9,200.00
Widdifield Tp., berth 2, 6 1/2 sq. miles at \$1,400 per mile, T. W. Murray, Pembroke	9,100.00
Widdifield Tp., berth 3, 5 1/2 sq. miles at \$3,800 per mile, H. H. Cook, Toronto	20,900.00
Long Island East and West, 1/4 sq. miles, H. H. Cook, Toronto	2,000.00

RAINY RIVER DISTRICT.

Miscampbell Tp., berth G5, 9 1/2 sq. miles, at \$300 per mile, H. W. Kennedy, Rat Portage	\$ 2,850.00
Miscampbell Tp., berth G8, east of Pipestone Lake, 3 sq. miles, at \$800 per mile, D.M. Robertson, Rat Portage	2,400.00
Miscampbell Tp., berth G9, north of Pipestone Lake, 18 sq. miles, at \$350 per mile, William Power	6,300.00
Miscampbell Tp., berth G10, north of Lake Rowan, 7 sq. miles, at \$400 per mile, Wm. Power	2,800.00
Miscampbell Tp., berth G12, east of Pipestone Lake, 5 sq. miles, at \$300 per mile, H.W. Kennedy, Rat Portage	1,500.00
Miscampbell Tp., berth G13, near outlet of Pipestone Lake, 12 1/2 sq. miles at \$60 per mile, D.M. Robertson, Rat Portage	750.00

Miscampbell Tp., berth G14, west of Clearwater Lake, 3 sq. miles, at \$250 per mile, W.H. Kennedy, Rat Portage	\$ 750.00
Miscampbell Tp., berth G15, north of township of Kingsford, 2 1/2 sq. miles at \$1,100 per mile, D. M. Robertson, Rat Portage	3,025.00
Miscampbell Tp., berth G16, west of Pipestone Lake, 8 sq. miles, at \$325 per mile, Dr. Spohn	2,600.00
Miscampbell Tp., berth S.V. 10, on Long and Storm Lakes, 3 1/2 sq. miles, at \$450 per mile, Stewart & McLellan, Wabigoon	1,575.00
Total	\$719,350.00

SALE OF SEPTEMBER 17, 1901.

Graham Tp., 19 1/4 sq. miles at \$700 per mile, R. A. Grant, Toronto	\$ 13,475.00
Cartier Tp., 33 1/4 sq. miles at \$725 per mile, B. B. Bahusen, Pembroke	24,106.25
Levack Tp., 37 sq. miles at \$4,300 per mile, James Playfair, Midland	159,100.00
Hart Tp., 33 sq. miles at \$300 per mile, Brennan & Sons, Hamilton	9,900.00
Jarvis Tp., berth 1, 11 1/4 sq. miles at \$2,200 per mile, C. Beck, Penetanguishene	25,850.00
Jarvis Tp., berth 2, 11 1/4 sq. miles at \$1,125 per mile, John Collins, Sault Ste. Marie	12,656.25
Anderson Tp., berth 1, 12 1/4 sq. miles at \$2,100, Dr. Spohn, Penetanguishene	25,725.00
Anderson Tp., berth 2, 13 1/4 sq. miles at \$2,600 per mile, Dr. Spohn, Penetanguishene	35,100.00
Chesley Tp., berth 1, 15 1/2 sq. miles at \$4,700 per mile, N. Dymont, Barrie	72,850.00
Chesley Tp., berth 2, 13 sq. miles at \$2,800 per mile, N. Dymont, Barrie	36,400.00
Whitman Tp., berth 1, 8 1/4 sq. miles at \$3,200 per mile, J. W. Munro, Pembroke	26,400.00
Whitman Tp., berth 2, 8 1/4 sq. miles at \$3,000 per mile, J.W. Munro, Pembroke	26,250.00
Whitman Tp., berth 3, 8 1/2 sq. miles at \$3,100 per mile, J. W. Munro, Pembroke	26,350.00
Whitman Tp., berth 4, 8 1/2 sq. miles at \$3,400 per mile, J. W. Munro, Pembroke	28,950.00
Curtis Tp., berth 1, 9 sq. miles at \$3,000 per mile, C. Beck, Penetanguishene	27,000.00
Curtis Tp., berth 2, 9 sq. miles at \$2,300 per mile, C. Beck, Penetanguishene	20,700.00
Curtis Tp., berth 3, 9 1/2 sq. miles at \$1,000 per mile, C. Beck, Penetanguishene	9,250.00
Curtis Tp., berth 4, 9 1/2 sq. miles at \$1,200 per mile, C. Beck, Penetanguishene	11,100.00
Gillmor Tp., berth 1, 9 sq. miles at \$2,200 per mile, J. S. Gage, Vineland, N. J.	19,800.00
Gillmor Tp., berth 2, 9 sq. miles at \$2,000 per mile, A. Barnett, Renfrew	18,000.00
Gillmor Tp., berth 3, 9 1/2 sq. miles at \$2,400 per mile, A. Barnett, Renfrew	22,200.00
Gillmor Tp., berth 4, 9 sq. miles at \$2,700 per mile, A. Barnett, Renfrew	24,300.00
Rutherford Tp., 8 1/2 sq. miles at \$600 per mile, P. McDermott, South River	4,950.00
Thunder Bay District, block A, 26 sq. miles at \$300 per mile, Alger, Smith & Co.	7,800.00
Thunder Bay District, block B, 12 1/2 sq. miles at \$800 per mile, C. Beck, Penetanguishene	10,000.00
Thunder Bay District, Block C, 33 sq. miles at \$375 per mile, Dr. Spohn, Penetanguishene	12,375.00
Thunder Bay District, block D, 13 1/4 sq. miles at \$1,750 per mile, J. E. Murphy, Hepworth	23,625.00
Total	\$733,312.50

TIMBER FOR A RAILWAY.

The Grand Trunk Railway Company use annually between 10,000,000 and 15,000,000 feet of lumber and timber, which is required for bridges, culverts, stations, platforms, cars and coaches, etc. The material consists of white pine, red pine, Southern yellow pine, British Columbia fir, spruce, oak, ash, mahogany and whitewood.

Surveys have been completed for a logging flume which is to be constructed in the Capilano River valley by H.H. Spicer, J.C. Keith and other capitalists of Vancouver, B.C. The length of the flume will be eight miles. There are some deep gulches across the route of the flume, which will require heavy timbering.

THE Canada Lumberman

MONTHLY AND WEEKLY EDITIONS

PUBLISHED BY

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

CONFEDERATION LIFE BUILDING, TORONTO.

BRANCH OFFICES:

IMPERIAL BUILDING, MONTREAL.

22 GREAT ST. HELENS, LONDON, E. C.

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

TERMS OF SUBSCRIPTION:

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

Foreign Subscriptions, \$1.00 a Year.

ADVERTISING RATES ON APPLICATION.

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

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

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 15 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

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

TERMS OF SALE

The apathy of Canadian lumbermen in effecting even minor reforms has been emphasized by the continuance of terms of credit which for some time have been considered inimical to the best interests of the trade. The terms allowed in Canada for the settlement of lumber invoices are 2 per cent. discount within fifteen days and the face value of the invoice within three months. The latter period, in the opinion of many members of the trade, should be reduced to two months, to correspond with the custom prevailing in the Eastern States. The shortening of credit would seem to be a very desirable step and one which would be likely to result beneficially to both buyer and seller. It would lessen the risk involved by the seller and would no doubt in some cases protect the buyer from getting beyond his depth. Not alone in lumber, but in all branches of commerce, should this limit be adopted.

That a change has not been made is due to lethargy on the part of those interested rather than to any fear of difficulty in applying the changed regulation. Naturally one dealer refrains from taking the step on his own account lest he should be regarded as too severe and should thereby lose some of his custom, but if concerted action were taken it would probably be found that there would be no opposition to the movement.

The question of credit has been very carefully considered by the National Wholesale Lumber Dealers' Association of the United States, and the result of its deliberations stands as a precedent for Canadian lumbermen. At a meeting of the Association on March 2, 1899, a resolution was adopted allowing 1½ per

cent. off for cash within fifteen days of date of invoice, or bankable paper at 60 days. These terms remained in force until September 17th of this year, when a change was made allowing 1 per cent. on cash within thirty days from date of invoice, as well as the 1½ per cent. for cash within fifteen days. These terms are almost universally adopted throughout the Eastern States. The western terms are 2 per cent. within ten days from date of invoice or 1 cent. in thirty days.

It might be found advisable for the Canadian trade to allow 1 per cent. for cash within thirty days; in any case, a revision of the terms of credit, by which the period of settlement would be shortened to two months, is desirable.

BRITISH MACHINERY.

On this side of the Atlantic the memorial presented to Lord Strathcona by the British manufacturers of paper and pulp machinery is regarded as a singular document. It is quite natural that the representative of Canada in Great Britain should be asked to wield his influence to remove any prejudice that may exist against British machinery, and that he should also extend an invitation to Canadian paper-makers to visit the works of British manufacturers, but when a request is made that British machinery be allowed to enter Canada for a time free of duty, a discrimination in favor of one branch of industry is contemplated which the Government cannot be expected to recognize. It is extremely unlikely that the Dominion Government will consider the proposition favorably, as it would be establishing a dangerous and troublesome precedent.

The views of Canadian manufacturers, published elsewhere in this number, show that British-made machinery is used to a very small extent in the paper and pulp mills of this country. The statement of the British manufacturers that a prejudice exists in Canada against British machinery does not seem to be correct. The reasons why British machines have not found a larger demand in this country may be said to be their inadaptability to requirements, the great distance between the two countries, and the failure of British manufacturers to adopt more modern methods to bring their products to the attention of prospective purchasers.

As to the first cause, there seems no reason why British machinery could not be made suitable in every respect to the mills of this country. As now manufactured it is heavier and more durable than the machines made in Canada and the United States, but is thought to be lacking in efficiency and appearance. The inconveniences resulting from the distance from source of supplies cannot easily be overcome. When parts of machines require to be renewed it is a serious drawback if these have to be brought across the Atlantic. The establishment of a branch in Canada would be of assistance in this direction.

There is good ground for the contention that the Britishers are themselves responsible in large measure for the small share of the Canadian trade that they have secured. The statement of the manager of a large paper

company that in three years he has been approached but once by a representative of an British machinery concern is in itself an evidence of lethargy and lack of business energy. If the Britishers are to compete successfully against the United States and Canada they must be equally persistent in seeking the trade and by personal solicitation and judicious advertising methods constantly keep their goods before the eyes of buyers. Instead of extending an invitation to our paper and pulp mill men to visit Great Britain and examine their machines and their facilities for producing the same, they should make arrangements to establish show-rooms in a convenient location in Canada where their goods could be inspected and full particulars obtained.

While many of the paper mills of Canada are equipped with foreign machinery, it is encouraging to observe that in many of the new pulp mills now under construction, the major part of the equipment is of Canadian manufacture. The mills of the Riordan Pulp Company at Hawkesbury, Ont., and the Quitchouan Pulp Company at Quitchouan Falls, Que., are equipped almost entirely with Canadian-made machines.

CARE IN SHIPMENT AND MANUFACTURE.

Commenting on the proposal to revive the Hardwood Exporters' Association of the United States, and incidentally upon the wagon oak trade, the Timber Trades Journal makes some pertinent remarks as to the methods which should be adopted by shippers to the British market. It is pointed out that much damage is done to oak planks and other hardwood lumber by transportation to the seaboard on open cars. When the stock arrives at its destination it is frequently unfit, owing to injury in transit, for the purpose for which it was intended.

Shippers are urged to exercise great care in the manufacture of their stock and to endeavor to supply the sizes demanded by the British trade. Instances are cited of the receipt of oak scantlings measuring one-half inch under square or one inch too short. Other shipments have been defective in the other direction, being perhaps half an inch larger than the specification called for. In such instances, in addition to the dissatisfaction caused the recipient and the possibility of the rejection of the stock, an additional freight charge must be paid on the waste material.

Defects in manufacture, according to contemporary, have been frequently met with. These are usually scrutinized very closely and the shipper compelled to stand the loss.

No doubt these statements are founded on facts. It may be said, however, that in late years there has been a great advance in manufacturing methods and the lumber turned out by the Canadian mills to-day will compare favorably with that manufactured in any other country of the world. In all countries there are careless manufacturers, and the trade at large must bear the stigma.

The question of manufacturing methods brings up some important considerations. It is possible that the tendency to increase the output of a mill may be carried too far and that

quantity may be sacrificed. In these days of double-cutting bands and double-cutting circulars, it is necessary that the quality of the product should be carefully watched. It is an easy matter to increase the production at the expense of quality.

We do not wish to be considered as antagonistic to the class of mills we have mentioned, but rather to give prominence to that system which produces the best results.

A certain manufacturer in Ontario has used a double-cutting band for the past season. He is prepared to stand by it both as to economy and efficiency, and in a new mill about to be built proposes that a double-cutting band shall form a part of its equipment. On the other hand, we know of shrewd manufacturers who claim that the double-cutting band mill is certain to increase the quantity of unevenly-manufactured and cull lumber, for the reason that it is not possible for the sawyer to obtain a proper view of the log in order to direct to the best advantage the return cut.

EDITORIAL NOTES.

The Grand Trunk Railway carries hardwood lumber from the Georgian Bay district to Montreal at a rate equal to 60 cents a ton per mile. The Intercolonial Railway rate is 75 cents per ton per mile for almost an equal distance. The lumbermen of the east think this constitutes a grievance, and are seeking to have it remedied.

The sailing schooner is fast disappearing from the great lakes of Canada. Several of these vessels are wrecked every year, and none are being built to take their place. Owners of such vessels say that the carrying charges are too low to admit of doing a profitable business, and they are gradually getting out of it. The shortage of vessels is hindering the operations of lumbermen. A manufacturer told the writer a day or two ago that he had been trying all summer to get some lumber brought down the lakes, but so far had not succeeded, and was afraid that he might fail to secure it at all this year, as some of the steam vessels are about to lay up.

The granting by municipal corporations of bonuses for the establishment of saw mills and other industries should not meet with public encouragement. In certain instances peculiar conditions may warrant the giving of some inducement to secure an industry, but as a rule the concerns that are seeking such assistance are not worthy of it. It is possible to point to many examples bearing out this statement. Municipal bodies appear to overlook entirely the injustice that is done to existing industries, probably established when the risk involved was much greater and times less prosperous than at present. We have in mind a certain corporation in Ontario which within the past month granted a bonus for a saw mill. This corporation owes its very existence to an existing mill, established without any such assistance, and against which the "bonused" mill will complete. If such advantages count for anything, it should not be difficult for the new

industry, backed by the corporation, to outstrip the old one

From the Atlantic to the Pacific is heard the familiar fall wail of a car famine. All branches of commerce are suffering, but perhaps none so severely as the lumber trade. The situation, taking the Dominion as a whole, is the worst that has ever been experienced, with a consequent heavy loss and little prospect of better things in the near future. The large grain crop in the North-west has this year more heavily taxed the rolling stock of the railways. The annual recurrence of a car famine is due simply to the inability of the railways to move the vast quantity of freight that is congested into the fall months, and the difficulty is not easy of solution. It cannot be expected that the railways will provide and keep standing idle for perhaps eight months in the year sufficient rolling stock to accommodate prompt movement of all the fall trade, nor does it seem reasonable that shippers should suffer to the extent they have. It would seem incumbent upon the railways to increase the supply of rolling stock, and upon shippers and consignees to load and unload cars as speedily as possible.

NEW METHOD OF SAWING LUMBER.

Mr. Martin L. Killam, of Liscomb Mills, N. S., has invented a new method of sawing logs which will appeal to the consideration of lumbermen. A patent on the device has been granted in Canada and the United States. The experiments that have been made with the new system have proven successful, and Mr. Killam and all who have seen the tests are unanimous in the opinion that the new method will saw more lumber in a given time and at less expense than any other method yet introduced. The following description of the method has been furnished us and will be of interest.

It is a common method of sawing logs to use a circular saw with carriages of various makes, and by the use of this method to saw some fifty or sixty thousand feet of lumber in ten hours, but Mr. Killam's method improves on the old one by using two saws and cutting two deals or board at the same time. The two saws are placed one directly in advance of the other; one saw (the head one) is adjustable and by the use of a lever at the sawyer's side can be instantly and while in full motion moved nearer to or further from the carriage, so that any thickness of lumber up to and including six inches can be sawn two at a time. At the first forward movement of the carriage a slab and a deal or board are taken from the log. At all other forward movements of the carriage two deals or boards are sawn until the last cut, when three deals or boards or a slab and two deals or boards are sawn.

The features of this invention are:

1. The use of two saws in combination so that in slabbing a log, a deal or board can also be sawn, doing away with any forward movement of the carriage for no result in producing lumber.
2. The use of two saws in combination, making it possible to cut, at every forward movement of the carriage except the first and last to every log, two deals or boards.

3. The use of two saws in combination making possible to saw three deals or boards or a slab and two deals or boards at the last cut on log.

4. The use of two saws in combination both of which may be brought into exact line; the rear saw being larger than the head saw, will admit when both saws are in line and employed in the same cut to carry full feed in very deep cut and make it possible to cut large logs faster than by any other method.

The following particulars of a test of the new method made at a mill at Liscomb Mills may be of interest: Three deal logs averaging 75 superficial feet, sawing time 19 seconds; four deal logs averaging 121 feet, sawing time 24 seconds; five deal logs averaging 156 feet, sawing time 34 seconds. Something over five hundred logs were sawn during the test, the regular mill sawyer, Joseph McDonald, of Mosen River, N. S., doing the sawing and finding no trouble in handling the extra saw. The lumber sawn during the test was well and accurately sawn. The saws were equipped with Killam's patent guide to top of saw. The saws were of gauge 9, the larger one sixty inches in diameter. They were hammered and fitted by Mr. Killam, who is an expert on circular saws. Mr. Killam is the best known millwright in the eastern provinces and built the Liscomb Mills, Ship Harbor, and Stewiacke mills for Mr. Alfred Dickie, all of which have proven themselves very fast cutting mills.

We understand that the Killam double circular mills are now being manufactured by the Oxford Foundry and Machine Company, of Oxford, N.S.

RAFT OF OAK UNDER WATER.

Somewhere beneath the mysterious surface of the Scugog river, a few miles from Lindsay, Ont., a large quantity of oak timber, worth tens of thousands of dollars, has lain for about fifty years. The facts connected with the sinking of the timber are now known only to the oldest inhabitant. Away back about 1850 Mr. Alex. Dennistoun operated largely on the waters of the Scugog, Cameron and Balsam lakes, and in those days square timber was the chief product of the forests in this locality. The timber was floated down in vast rafts made up of hundreds of cribs, the whole being run through Peterboro to Lake Ontario, and towed to Quebec.

Mr. Dennistoun had a foreman in one of the camps named Joe Demoe. Demoe, instead of cribbing his oak with a few sticks of pine to keep it afloat, built his raft entirely of oak. This timber was floated down in one huge block to a point near the mouth of the Lindsay river, where it was tied up for the winter. In the spring the rafts had disappeared beneath the surface of the Scugog, having become water logged during the winter. In those days oak was plentiful, and it was decided that it would not pay to raise it. In a few years the circumstance was forgotten.

The timber is as sound to-day as it was when cut, having been preserved by the water. Mr. John Thompson, of the Dickson Company, Peterboro, says that the timber, judging by what he has heard about it, is worth \$100,000 or more. Some time or other it will be recovered, and will make some one immensely rich.

VIEWES AND INTERVIEWS

I understand that one or two Canadian box manufacturers have recently exploited the Mexican market with some success, and that others are giving it some attention, one of them being now on the ground. One would naturally think that the manufacturers of the Southern States would be able to control this market, but it seems that they have not done so. One of the reasons may be that the Southern pine is a poor box lumber and tends to warp. In Canada spruce lumber is finding favor with box manufacturers and many of the shooks shipped to Mexico have been of this material. It is considered even better than white pine for boxes, and can be relied upon not to taint the contents.

There is no more observant lumberman in Canada than Mr. J. H. Lavallee, of Orillia. When I last met him he had only recently returned from British Columbia, where he has timber interests. Almost his first remark was in reference to the magnitude of the timber

supply the raw material for a mill cutting 30,000,000 feet a year for a period of one hundred years. The average of 60,000 feet to the acre is very good for a large tract of timber, although it is often exceeded in small lots. For instance, a logger in the employ of the Victoria Lumber & Manufacturing Company, of Chemainus, is said to have cut 560,000 feet on one acre, and Mr. Lavallee tells me that this statement is confirmed by Mr. Palmer, the manager of the company. If in Ontario a yield of 560,000 feet is obtained from a square mile the owner considers that he has little ground for complaint. Truly, the possibilities of British Columbia are great and the province will be a land of forests for many generations to come.

Referring to the New Brunswick log scale, an eastern manufacturer remarks that "it is the meanest, closest thing we have in the trade down here, and we can never get out of the logs what we buy them for." This remark prompted me to make a comparison of the rule with the Doyle rule, with the following result: Taking a 24 foot log, 12 inches in diameter, the Doyle rule gives 95 feet and the New Brunswick rule 144 feet; 18 inches

FORESTRY MATTERS.

Mr. A. Kuechtel, of Albany, N.Y., is a forester with the New York State Forest, Fish and Game Commission. Recently he visited the Muskoka district of Ontario to secure 200 bushels of pine cones, with which he intends to carry out a scheme of reforestation in the Adirondacks. A similarity in climatic conditions with New York State prompted him to try Muskoka. The cones are to be planted first in nurseries. After four years' growth therein, when the trees have attained a height of nine inches, they will be planted in the open five feet apart. In the course of a few years a thinning process will be resorted to, and the sapplings removed will be offered for sale as Christmas evergreens. According to Mr. Kuechtel over 60,000 acres on the mountains have been fire swept and cleared of timber.

An exhibition of a decidedly novel and interesting character will shortly be given in Toronto under the auspices of an association now in process of formation, the Canadian Forest, Fish and Game Association. The object of this association is to foster an interest in the preservation and cultivation of the forest, the fisheries, and the game animals and birds. Associated with the movement in Toronto are such well known gentlemen as B. E. Walker, Senator Cox, Lieut.-Col. H. M. Pellatt, E. R. Wood, Dr. Oronhyateka, H. P. Dwight, A. E. Ames, Aemilius Jarvis, J. Maughan, E. A. Scadding, Stewart Houston and Chas. Cockshutt. It is proposed during December to hold an exhibition in the Armouries of Canadian trees, fish and game, something after the extensive sportsmen's exhibitions which



SCENE IN THE TEMAGAMI RESERVE. (THIS IS AN ALMOST PURE PINE FOREST.)

supply of our western province. "No Ontario man has any conception of the possibilities of the lumber trade of British Columbia," was the way he introduced the subject. "Within ten years," he added, "there will not be a stick of British Columbia lumber available for shipment further east than Winnipeg." To a query as to the direction of the greatest expansion in demand, he replied: "I believe there will be a like expansion in both local and export trade. Look at the immense agricultural country in the North-West. As it becomes more thickly populated so will the lumber demand increase. In the export trade there promises to be vastly increased shipments in the near future to Japan, China, South Africa, and Australia. I also anticipate a greater trade with the Eastern States, as when the Nicaragua canal is completed, which will probably be within ten years, the distance between Vancouver and Philadelphia will be much shorter than by the present route, and the cost of shipping will be reduced perhaps one-half. Reverting to the forests of British Columbia, Mr. Lavallee cited an instance of one block of 50,000 acres of timber land which he had in mind and which contained three billion feet of timber, or an average of 60,000 feet to the acre. This limit would

diameter, Doyle 294 feet, New Brunswick 344 feet; 24 inches, Doyle 600 feet, New Brunswick 648 feet. On the whole the New Brunswick rule gives perhaps 25 per cent. more than the Doyle rule, and even a larger percentage on small logs. It was compiled especially for "deal logs," whereas the Doyle rule is intended for scaling logs to be sawed into boards and allows for more saw kerf; hence the difference. It is not surprising that this manufacturer does not regard the rule with favor, as no doubt it is frequently found impossible to get from a log as much lumber as it calls for. Of course, it is not necessary to crowd a small log to get out of it what is demanded by the Doyle rule, but the difference between the two seems too great. The time is ripe for a revision of the N.B. rule. We cannot disguise the fact that the average log taken out to-day is not as large as it once was. What say other manufacturers in the east?

The advertisement has an advantage over most agents in that it does work for the future and in the future. If the advertiser does his part well the men it brings to him may be held indefinitely. The advertisement will not do it all, but it will do much more than half of the work.—Printers' Ink.

have proved so successful in the United States. The armouries will be transformed into forest scenes, with lakes, water falls and trout pools, while many of the principal trees will be transplanted and shown in full growth. Mr. R. E. Follett, manager of the International Forest, Fish and Game Association, was recently in Toronto organizing the Canadian association.

Perhaps no profession ever rose into popularity in this country so rapidly as that of forestry. There are already four regular schools of forestry here, in New York, Minnesota, North Carolina and Ohio, besides several summer schools to which only those students are admitted who possess a good preliminary training; yet the demand for trained foresters already far exceeds the supply, and is fast increasing. It is said that, in the United States alone, more than two million acres of private woodland are under the charge of trained foresters, in addition to the tracts belonging to the State and General Governments; and twenty skilled foresters have been called for to go to the Philippine Islands. What will be the result of the movement remains to be seen, but it is hardly possible that a system which has, in a hundred years, added immensely to the wealth of Germany should not be of even greater benefit to the United States. It is curious that one-third of the students in the Yale Summer School of Forestry are women; and, although a great many women attend summer courses rather as amateurs than with any definite object, it is very possible that the profession may, in this country, be found to suit the sex which excels in accurate and scientific observation. American Architect.

THE CARE OF STOCK.

BY H. T. GATES.

By stock, I mean finished product, ready for the market ; material that is to be kept on hand for immediate sale. I take it for granted that most wood-working shops carry more or less stock. In order that it may be delivered to the purchaser in first-class condition, some thought must be given to its storage and preservation. It must be kept clean, accessible and conven-

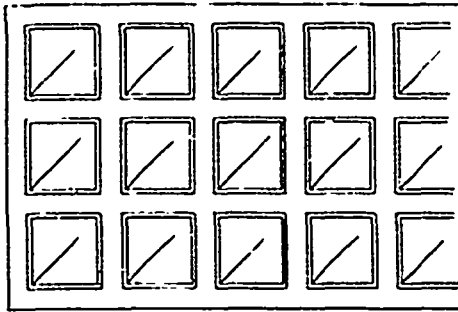


FIG. 1.—SECTION OF RACK FOR MOLDINGS—END VIEW.

iently arranged. Economy of space must also be taken into account.

Let us first consider what stock is usually kept on hand. Besides rough and dressed lumber there are moldings, balusters, spindles, corner and base blocks, doors, sash, blinds, mantels, as well as parts of manufactured work before it is made up, such as blind slats, door panels, turned beadings, press moldings, carvings, brackets and scroll work ; also hardware, including nails, screens, sash dowels, sandpaper, glue, sash pulleys, etc.

The hardware stock room should be convenient of access for the workmen, and near the office also. It should be in charge of a trusted employe, whose duty it is to report what stock needs replenishing, and to accompany any one who requires supplies, keep the stock in order and the room properly cleaned. He may have other duties that will not be seriously interfered with by this responsibility. It is usual to have this stock kept locked up. No-

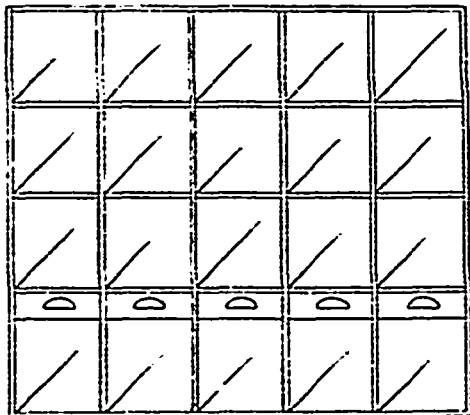


FIG. 2.—RACK FOR BALUSTERS AND TURNINGS, FRONT VIEW.

body thinks of having money lying around loose, without a safeguard upon it, and, though we may not have thought of it just this way, it is a fact, nevertheless, that such stock represents just so much money, and it is like putting temptation in the employees' way to leave it promiscuously around the shop. Instances have been known of lunch pails or boxes having gone home with something besides "grub" in them ; and he who puts temptation of this kind in another's way is not altogether

free from blame. Therefore, I favor keeping hardware carefully stored in a room arranged for the purpose, with shelves for the boxed goods, bins for nails and other loose articles. In some factories it is the custom to sell nails, building-paper, weights, sash cord, etc. ; in such instances they may be kept in the same room, all being in charge of the shipping department.

The storage of moldings is of prime importance, and care should be exercised to keep the various patterns separate, the moldings straight and free from dust, dirt and breakage. Sometimes they are kept in tight boxes with ends closed. In this way the stock is sure to remain fresh and bright. Contractors delight in getting fresh stock, just as well as house-wives like fresh provisions. The compartments of the molding rack should be lined with some thin, cheap material which will serve the purposes referred to (see Fig. 1), and the ends of the racks facing front should be numbered plainly to correspond with the molding patterns, so that they can be found instantly when wanted. It is a good plan to have a board in the office, with a piece of each pattern of molding hung on it, for reference, and each pattern numbered to agree with the rack and molding book. For the

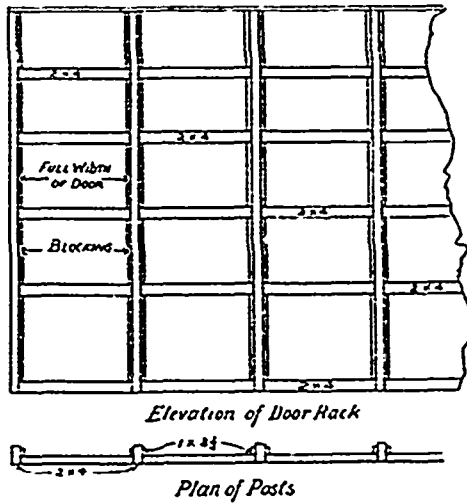


FIG. 3.

various panel moldings, etc., similar racks hung from the ceiling, and high enough to be out of the way of the bench men, are convenient. Blind slats, being short lengths, must be kept in enclosed bins, with access at one end.

A rack on the wall, with shelves and partitions, making 12 or 15 compartments, is serviceable for storing balusters, keeping the various kinds and sizes separate. Drawers near the bottom, with partitions, will take care of small rosettes, knobs, etc.—see Fig. 2.

The storeroom for sash, doors and blinds should be kept as dust-tight as possible. Sash, doors and blinds in large quantities are usually piled flat on the floor. For small lots, racks with uprights and slats across will keep the different sizes separate. The tops of all the door piles should be covered. There are several styles of door racks in use, the width between uprights being such as to admit the widest door kept, and the height of each compartment regulated by the number of doors to be stored—see Fig. 3. The manager can arrange the sizes to suit the case and convenience.

Where the stock room is narrow, the racks should be accessible from the side instead of

the end—see Fig. 4. Another method, where the ceiling is low, is to stand the doors up in stacks, with dividing posts to carry the weight and separate the various sizes. This also applies where several sizes are kept in a limited space—see Fig. 5.

Spindles, balls, post tops, etc., are kept in bins or covered crates or barrels easy of access. Corner and base blocks are piled against the wall, as tightly together as possible, sometimes in covered boxes.

The object of the warehouse is to keep any

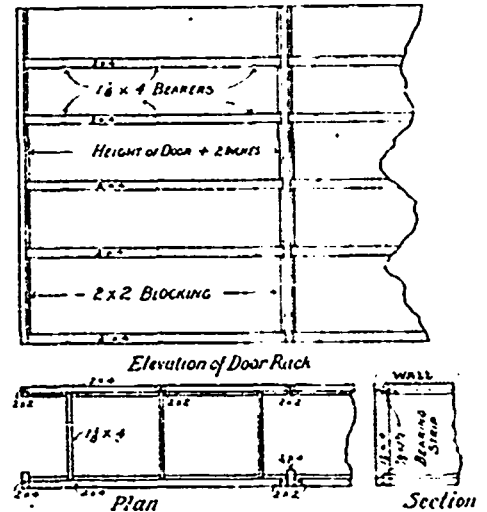


FIG. 4.

product of the wood-worker dry, clean and intact from the time of its completion to its delivery to the consumer. It should be convenient to the finishing room, shipping department and elevator. It should be tightly built to keep out whether and dust, and should be kept clean by occasional sweeping.

The fault with most of us is, we do not live up to our ideals and understanding in these matters, letting things go by default. As a consequence we have occasional bargain days, to get rid of depreciated stock. This could be obviated in a large degree by taking proper care of stock on hand. All this tells in the

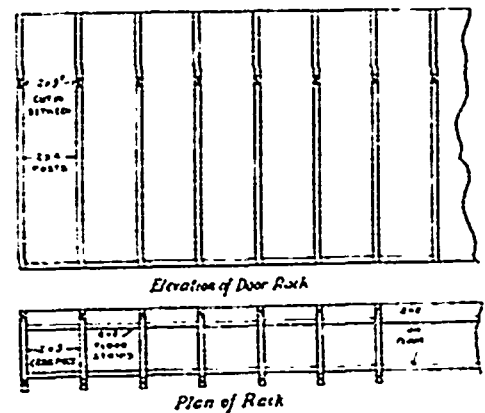


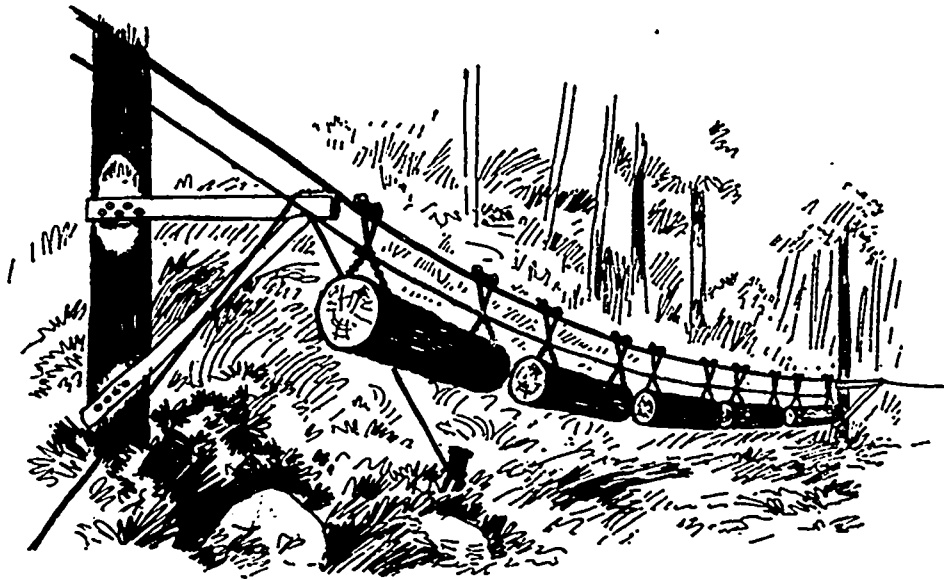
FIG. 5.

annual round-up for or against "good house-keeping."—The Wood-Worker.

Mr. H. P. Hubbard has been appointed sales agent for Canada for Messrs. E.C. Atkins & Co., saw manufacturers, of Indianapolis. Mr. Hubbard has just returned from an initial trip through the Georgian Bay District and Northern Ontario, where he formed the acquaintance of the leading mill owners and operators and secured a number of orders for his firm. He has opened an office in the Exchange Building, 44 Scott Street Toronto.

A NOVEL LOGGING OPERATION.

Capt. J. B. Thomas, manager of the lumber and veneer operations of William E. Uptergrove & Bro., New York, at their Eastern Tennessee plants at and near Johnson City, Tenn., has an exceedingly rough logging proposition in the White Rock mountain district.



AERIAL LOG TRAMWAY IN THE EAST TENNESSEE MOUNTAINS.

As is well known, in the ordinary rough country where the coves are too steep to permit of the use of logging railroads, slides are built by means of which the logs are slid down to the line of the railroad. Some of the coves on White Rock mountain are so cut up with cross coves as to make the expense of building slides prohibitory. Captain Thomas has therefore invented, constructed, and has in daily use a trolley line log conveyor, which is illustrated in the accompanying sketch. The three-quarter inch wire cable in this instance is 3,700 feet in length, and runs in practically a straight line down the cove. It is stretched and firmly anchored at each end to trees. By means of a series of carriers, the sheave pulleys of which ride the cable, the logs in trains of five are let down the line, being steadied by means of the brake attached to a hoisting drum. The logs are poplar and of large size, running from 500 to 1,200 feet each. A 5 horse power gasoline engine at the upper end of the cable line brings the carriers back to the several skidways where the logs are being loaded.

The illustration of the operation is almost self-explanatory. Grab hooks are driven into the sides of both ends of the logs, and the logs are then hooked on to the carriers. The carriers are chained together for the entire length of the train of logs. The invention is working admirably and economically, and it takes less than 30 minutes to deliver a load from the top of the inclined railway to the bottom and to return the carriers to the starting point. The loads are loaded from skidways, a pair of balanced skids lifting the logs into place for attachment to the carriers, and are then dropped from underneath the log when it is started forward. The line is practically a straight one from a perpendicular point of view, but on a horizontal plane is adapted to the inequality of the cove. Trees 150 to 250 feet apart are employed to which to attach the supporting arms. These brackets vary in length to insure a prac-

tically straight line. The cable is not fastened into the casting at the end of these brackets, but simply lies in a groove, save in occasional cases where it is necessary to employ a piece of strap iron riveted to the iron casting in which the bracket terminates to hold the line down in place. The appliance is working admirably

and with economy, and reflects credit on the ingenuity of Captain Thomas in his woods work.—American Lumberman.

LUMBERING OPERATIONS IN LABRADOR.

J. A. Gillis, of Stewiacke, has recently been in Labrador as manager of the Grand River Pulp & Lumber Company, of which Alfred Dickie, of Lower Stewiacke, is president. He fitted up temporary quarters for his men twenty-five miles up the Hamilton inlet and arranged for the cutting of 10,000 logs this winter. Concerning the operations of the company Mr. Gillis writes the CANADA LUMBERMAN as follows:

"The company have acquired from the Government of Newfoundland 200 square miles of forest on the Grand River at Labrador. This territory skirts the Grand River from its mouth up two hundred miles, thereby holding the key to operations on the whole river. The river is about 125 miles from the sea, but a 2500 ton steamship can come to loading berth where mill will be erected, and, of course, logs will be driven to mill. The river varies from half to three-quarters of a mile wide and is navigable for a draft of nine feet to Muskrat Falls, which is twenty miles from mouth of river. A portab'e mill is at present in course of operation on this river at Traver's Pine. The expedition started from Halifax last of August with forty men, fourteen horses and twenty thousand dollars worth of supplies, and we expect to get for next season's shipment four million sup. feet of spruce deals.

"The pulp wood on this property is inexhaustible and would keep the largest mill going for a century, and none of it more than one and one-half miles from the river bank. We cut down trees there, near to the bank of the river, seventy feet long and measuring twelve and fourteen inches at the top and as straight as an arrow. It is the intention of this company to

erect next season a large saw mill opposite Northwest River at mouth of Goose Bay."

PRICE OF CUBAN WOOD.

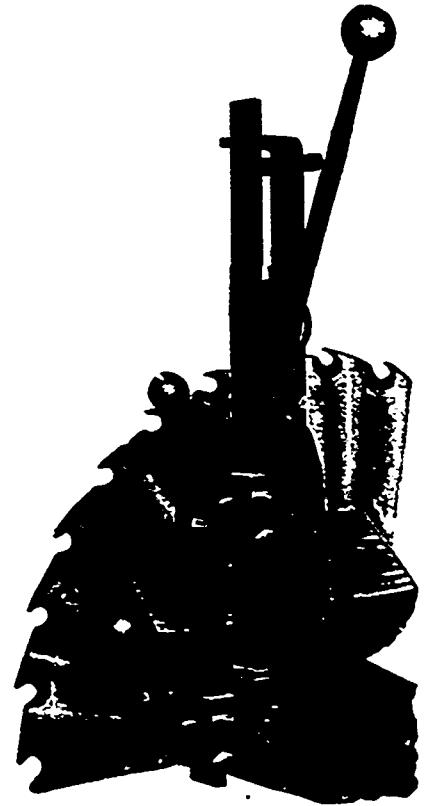
Replying to the inquiry of a subscriber, the present prices f. o. b. New York for Cuban mahogany and cedar logs range from 75 cents to \$1.00 per cubic foot, according to quality and size. Large figured mahogany logs have been sold as high as \$5.00 per cubic foot. The value depends largely upon the size and quality of each log, and it is impossible to fix an average price. As a rule each parcel is sold upon its merits.

IMPROVED DUPLEX MILL DOGS.

Canton, Ohio, is famed as the home of the martyred President McKinley. It is also noted as the headquarters of the Canton Saw Company. In their large and busy works they manufacture saws, saw-mill "dogs" and supplies. Class' improved duplex mill dogs manufactured by this company have no springs, no rackets, no pawls, nothing to get out of order, but have a positive grip, so that no log can become loose or turn when being sawed. Thousands of these "dogs" are in use in the best circular and band saw-mills in the U.S., and the company are now shipping them to England, Canada and Australia.

These "dogs" can be fastened on any head block knee, and will hold small blocks on single head block if necessary to do so. Upper or lower dogs can be used together or independent of each other. This company also manufacture a single dog without any duplex attachment. Their advertisement in this issue should attract all those interested.

One of the features of the works of the company is the fact that the whole machinery and plant is run, lighted and heated by natural gas received by a pipe line from



CLASS' RIGHT-HAND DUPLEX DOG.

Sterville, West Virginia, a distance of about 180 miles from Canton.

As an instance of the dispatch in this plant, an inserted tooth saw 56 inches diameter was ordered to be sent to the Japanese Government Envoy at Chicago. The order was received by telegraph Thursday, built complete, and delivered in Chicago on the following Saturday morning.

J. Thompson, W. R. Turnbull, D. J. Purdec, C. E. L. Jarvis, J. B. McLean, G. W. Crawford and G. F. Turnbull, all of St. John, are seeking incorporation as the Thompson Manufacturing Company, Limited, to erect and operate foundry and machine shops in the county of Kings. The proposed capital stock is \$40,000.

AMERICAN VS. BRITISH MACHINERY.

The request made recently to Lord Strathcona by a deputation of British manufacturers of paper and pulp machinery, that they be allowed to send their machinery into Canada for a time free of duty, has aroused a lively interest in the question whether machinery of British manufacture can compete successfully with the product of the American continent. For the purpose of obtaining their views on the subject, the following questions were submitted to a number of Canadian paper and pulp manufacturers:

- (1) In the erection of your pulp or paper mills, or subsequent alterations or additions, were the merits of both British and United States machinery considered, and with what result?
- (2) In what respects, if any, is United States machinery superior to that of British manufacture?
- (3) What is the difference in cost?
- (4) Have you any British-made machinery in your mill?
- (5) What do you consider the chief drawback in introducing British machinery into Canada?
- (6) How does Canadian paper and pulp mill machinery compare with machinery of foreign manufacture?

The replies received to the above questions are given below:

THE E. B. EDDY COMPANY, Hull: (1) In re-equipping our works here after the great fire of 1900, we in every instance used a Canadian-made machine when we could get one that would satisfactorily do the work required of it.

(2) Outside of Canadian-made machines we have very little British-made machinery, chiefly because our paper makers and other workmen are not as a class familiar with English paper machines and because we could not get our orders for paper-making machinery filled as quickly or as advantageously in the years 1900 and 1901 in Great Britain as we could in the United States.

(3) As we have never used much machinery made in Great Britain, we cannot compare the cost of such machines or their work or output with machinery made in Canada or with machinery made in the United States.

(4) If there is any drawback in introducing British machinery into Canada, it would in our opinion arise chiefly from lack of inclination on the part of the British manufacturers to make the machines to the specification and within the time required.

These conditions, while regrettable, are we think in the main true and might as well be stated so as to be well and generally understood.

BELGO-CANADIAN PULP COMPANY, Shawanegan Falls, Que.: Our pulp mill is equipped with United States and Canadian machines, therefore it is impossible for us to make a comparison between the "British Machinery and United States Machinery." However, we must say that the American machines which we are using have given us entire satisfaction. These machines were obtained from the Waterous Engine Works, Brantford, Ont.; Black & Clawson, Hamilton, Ohio; Jeffrey Manufacturing Co., Columbus, Ohio, etc. With the machines installed our mill was to produce a maximum of 100 short tons per day, while we have attained a record of more than 120 gross tons per day. This proves that the machines have an elasticity, allowing us to produce 33 1-3 per cent. more than was figured on.

RIORDON PAPER MILLS, LIMITED, Hawkesbury, Ont.: (1) We considered the merits of British and the United States machinery when erecting our mill at Hawkesbury. The United Kingdom is not a wood country, and does not manufacture one tithe of the pulp it consumes, therefore the manufacturers of pulp mill machinery are not in a position to know the requirements of pulp manufacturing in Canada.

(2) We consider the United States machinery superior to that of British manufacture, because they understand what is wanted better, and the design and

workmanship we regard as superior to that of English-made machinery.

(3) We think the difference in cost is in favor of the United States.

(4) We have no British-made machinery in this mill except one cutting machine for cutting the pulp into sheets.

(5) We consider one of the drawbacks to introducing British machinery into Canada for pulp making is their ignorance of the pulp business to start with; the long distance of the factories from the paper mills, and the long time it takes to get anything made and delivered in Canada; they seem to have no idea of the value of time; then as most of the machinery in Canada is of United States construction, intending purchasers like to get something which they have seen in operation and know to be satisfactory.

(6) In regard to Canadian paper and pulp mill machinery. There is very little paper mill machinery made in Canada; we do not know of any complete paper machine having been made in this country; it requires a very large plant, and the demand hitherto would not have kept a factory running continuously on that line of machinery. At present we consider there is a splendid opening for an up-to-date paper machine plant in this country. We hear of one United States firm desiring to secure the services of a large plant to make paper machines from their designs and with their patterns. As to Canadian pulp mill machinery, we purchased most of the machinery for this plant in Canada, made under our own directions. As an example, three of the six of our digesters, which are large ones, two of them the largest sulphite drying machines in Canada, were made for us by Bertram & Sons, of Dundas. Nearly all the other parts of our plant were constructed by ourselves.

STURGEON FALLS PULP COMPANY, Sturgeon Falls, Ont.: We believe that the best paper-making machines are made in the United States, therefore our orders for paper machines were placed there. The writer does not feel that machines made on the other side of the water compare at all favorably for fast running newspaper. Never having had personal experience with British machines, we cannot, of course, give an exact comparison as to their working qualities. American machines have, however, the market to-day, both in this country and in many foreign markets. Per ton of product, they would, in writer's judgment, cost less than the English machines. We have no British machines in our mills. The chief drawback in bringing British machinery into Canada for paper mills would be, first, the difficulties of being in touch with the manufacturing of the machines from time to time; second, the great difficulty in having broken or injured parts replaced or promptly repaired.

In regard to your last question, no fourdriniers are made in Canada. The pulp and paper machines made in Canada are of excellent quality and compare favorably with those made in the United States. As much of this manufacture is comparatively recent, the castings and furnishings are not so carefully and accurately made as in similar machines made in the States, where they have been made for years. I think, however, that the Canadian made machines will be well made in a very short time. It would seem that the great development of paper mill and pulp mill properties now going on in Canada would make it desirable and profitable for some Canadian manufacturer to undertake to construct fourdrinier machines here. The machinery for making these, however, is very expensive and a thoroughly equipped plant would cost a great deal of money.

We have ordered all the pulp mill machinery in Canada, as we came to the conclusion that we could buy it to as good advantage here as in the States.

SISIBOO PULP AND PAPER CO., Weymouth Falls, N.S.: We have no British-made machinery in either of our mills, all of it being either of Canadian or United States make. Our experience is that Canadian machinery is liable not to be as well finished as that made in the United States, but is generally stronger and more heavily built than that imported. Some of the machinery made in the latter country has more improvements than our own, which gives them the advantage when selling to us. We see no reason why Cana-

dians should not manufacture machinery fully as good, not only in the working parts, but also in the appearance, as can be obtained anywhere, as by so doing they would have an advantage in the sale of it over the American manufacturers, on account of the duty. We have had no experience regarding British machinery, but judging from what we have seen, it appears to be more heavily built than that of the United States.

THE LAURENTIDE PULP COMPANY, Grand Mere, P.Q.: (1) The machinery required for our paper mills was wanted so quickly that it was all bought in the United States on account of quicker delivery, and in some lines slightly better prices.

(2) Not having any British machinery in our mills, we are not in a position to state which country turns out the best article.

(3) As we have not had a quotation on British machinery for over four years, we are not in a position to answer this question as to cost.

(4) The chief trouble seems to be that the British makers are represented on this side by men who are not versed in pulp and paper mill machinery. They, therefore, are not in a position to do justice to their principals. In the space of three years, we have been approached but once on the subject of British machinery.

(5) No.

(6) Canadian machinery compares very favorable with that of foreign manufacture. It would be well, however, to note in this instance that most of the Canadian machinery is made on a royalty basis from American patterns.

QUIATCHOUAN PULP COMPANY, Quiatchouan Falls, Que.: All our machinery, except the water wheels, is of Canadian manufacture. The wheels were made in the United States. We have had no experience with British machinery.

PERSONAL.

Ald. Joseph Oliver, president of the Oliver Lumber Company, Toronto, has announced his intention of retiring from the Council. During his public career as the representative for Ward 2, Ald. Oliver has given a good account of himself. His friends have urged him to become a candidate for the Mayoralty, but his business has expanded to such an extent as to demand his entire attention.

A cablegram received at Quebec on November 15th announced the death of Mr. Thomas Beckett, which took place while he was on a voyage to South Africa. The deceased gentleman was for many years a partner of the firm of Dobell, Beckett & Company, timber merchants, Quebec, but retired some years ago, and has since been living in London, Eng. He married a daughter of the late Sir David Macpherson, and a wife, three sons and one daughter survive him.

IMMENSE FOREST RESERVES.

About six million acres of timber land in Northern California were withdrawn from the public land area for the creation of forest reserves under orders issued last month, at Washington, D. C., by Commissioner Hermann, of the General Land Office. The order was issued by direction of the Secretary of the Interior. The reserve on the Klamath river will embrace 3,780 square miles; Mount Sparta reserve 3,024 square miles; Lassen Park reserve 1,692 square miles, and Diamond Mountain 872 square miles. Many of the lumbering companies who had been expecting much of these limits to be placed on the market have been disappointed, and are turning their attention to Canada, notably British Columbia.

The Bureau of Forestry a fortnight ago received the silver medal awarded the Ontario exhibit of forest products at the Pan-American Exposition last year. It bears the handsome relief design which the Exhibition has sent forth and is a beautiful work of art.

Our special representative now travelling in Michigan states that the general consensus of expert opinion in Bay City, Saginaw and Muskegon is that the Michigan lumber industry, which has been rapidly declining of recent years, will be at an end practically this year.

THE NEWS

—R. S. Walsh, of Quyon, Que., is erecting a new saw mill on the Ottawa river.

—W. Cowan proposes to establish a large saw mill at Trout Lake City, B. C.

—A. Brunelle & Company have registered in the saw mill business at Rosaie, Que.

—G. O. Buchanan, of Kaslo, B. C., is removing his mill from Duncan City to Creston.

—The Vancouver Bevel Siding Lumber Company will erect a plant at Vancouver, B. C.

—Walter Mitchell has purchased the planing mill of William Robinson at Port Stanely, Ont.

—Robinson & Company are removing their saw mill from Fisher Bay, Man., to Humbug Bay.

—William Moses, of Carp, Ont., has manufactured over 14,000 boxes during the present year.

—William McNairnie has admitted J. C. Shaw as a partner in his planing mill business at Wallaceburg, Ont.

—An Ontario charter has been granted to Wood-Workers, Limited, with headquarters at Warton, Ont.

—Comile Monjeau, lumber and general store, St. Bruno, Que., is selling out and removing to Montreal.

—Johnston & Bows have started their new mill near Ashley, Ont. It has a capacity of 10,000 feet per day.

—Charles Glenn met his death recently by falling on a shingle saw in Allan Bros' mill at Mississippi Station, Ont.

—The Sutherland-Innes Company, of Chatham, Ont., will likely build a stave and heading factory at St. Thomas.

—The Moyie Lumber Company, of Moyie, B.C., will probably enlarge their mill to double its present capacity.

—Capt. McDonough, of St. Martins, N. B., has sold his portable steam saw mill to Robert Moore, of Loch Lomond.

—It is understood that the Mississauga Lumber Company are considering the building of a saw mill at Blind River, Ont.

It is understood that Walter and Robert Little, of Beachburg, Ont., intend building a saw mill in the Temiskaming district.

—The Weidman Company, of Southwold Station, Ont., are considering the establishment of a stave and hoop factory at St. Thomas.

—F. H. Todd & Sons are overhauling their saw mill at St. Andrews, N. B. They expect next year to make a very large cut of lumber and shingles.

—Frank Hourigan & Company, of Smith Falls, Ont., will operate the Shaver saw mill at Eganville and are in the market to purchase a small timber limit.

—The Keewatin Lumber & Manufacturing Company have decided to build a tie mill on Keewatin Bay. The company supply large quantities of ties for the C. P. R.

—The Victoria Lumber & Manufacturing Company, of Chemanius, B. C., are building a new logging railway from Lady-mith back into the woods north-west of that town.

It is reported that J. M. Poitras, late manager for the North Pacific Lumber Company at Barnet, B. C., and who recently returned from Dawson, will engage in the saw-milling business in the vicinity of Vancouver.

—Mr. Fitzpatrick, of Naim Centre, Ont., reports that fifty-five reading rooms have now been established in lumber camps, and teachers placed in charge of some of them.

—It is the intention of the North-End Wood-Working Company, recently organized at St. John, N. B., to greatly extend the plant taken over from the A. A. Maybee Company.

—The Parry Sound Lumber Company have applied to Foley township council for exemption from taxation on a sash and door factory proposed to be erected on Jenkin's Point.

—The Yale Lumber Company are building a saw mill at Cascade, B.C., with a daily capacity of 25,000

feet, and a shingle mill at West Robson with a daily capacity of 75,000 shingles.

—It is reported that the Holland & Graves Lumber Company intend building another saw mill at Byng Inlet, Ont., to be completed in time for sawing operations next spring.

—The Spicer Shingle Mill Company, of Vancouver, B. C., have invited tenders for the construction of a flume eight miles in length for carrying shingle bolts down the Capilano valley.

—The Wausaw Box Company, of Wausaw, Wis., purpose establishing a box factory in Ontario if a suitable location can be found. Sault Ste. Marie, Ont., is under consideration.

—A shingle mill on False Creek, B.C., owned by the Imperial Lumber Company, has been sold to Albert Cotton, of Calgary, who owns extensive timber limits in the Crow's Nest vicinity.

—S. O. Church & Bro., of New York, have secured a site and are about to erect a large stave and hoop factory at Sand Point, Ont. They are advertising for a supply of hardwood logs.

—D. R. Fraser & Company, of Edmonton, N. W. T., are erecting a saw mill on their limits sixty miles up the Saskatchewan river from Edmonton, to which point the logs will be rafted for manufacture.

—The Wolvin Lumber Company, who recently purchased the Matane timber limits of King Bros. in the province of Quebec, will likely erect a mill near the border of Quebec and New Brunswick.

—Thompson & Avery, of Sharbot Lake, and Peter Gray, of Caldwell's Mills, have joined forces in the lumber business at the latter place, under the name of the Clyde Forks Milling & Lumber Company.

—The Yale-Columbia Lumber Company have under construction a new saw mill at Robson, B.C., to replace the one destroyed by fire there some time ago. Joseph Genelle is managing director of the company.

—The Porto Rico Lumber Company, Ymir, B. C., has constructed two dams across the Salmon river. By this means the water is periodically raised about five feet, enabling the logs to be floated down to the mill.

—An American syndicate is reported to be negotiating for the purchase of the saw mill and timber lands of E. D. Davison & Sons, of Bridgewater, N. S. The limits are located on the LaHave and Medway rivers.

—It is announced that T. H. DeCew & Sons, stave manufacturers, of Fenelon Falls, Ont., have decided to move to eastern Ontario next year, as the stock of suitable timber around Fenelon Falls has become exhausted.

—George L. Burtis, of Munising, Ont., has completed arrangements to build a saw mill at Thessalon, the council of that town having granted him exemption from taxation for five years. The work of construction will commence at once.

—The Manitoba Hardware & Lumber Company, Limited, of Brandon, Manitoba, is applying for incorporation, with capital of \$150,000. The applicants are John Hanbury, Peter Payne, Joseph Agnew, A. B. Fleming and W. A. Bridgett.

—W. W. Harper has erected a new wood-working factory at Charlottetown, P.E.I., containing band saw, moulder, sand-paperer, power mortising machine and a cutting-off and ripping saw table. The building is 26 x 48 feet and has a concrete floor and iron doors.

—J. W. Scott, of Dumfries, N. B., has purchased an improved rotary saw mill, with engine and boiler complete, from the Robb Engineering Company, of Amherst, N.S. The mill will be set up on the large tract of timber land, eight miles below Woodstock, which Mr. Scott recently purchased.

—The annual supper of the employees of the Pembroke Lumber Company was held on October 24th in what is known as "The Ark," the large boarding house of the company. Mr. John Bromley, one of the directors of the company, occupied the chair and a very pleasant evening of social enjoyment was spent.

—The Canada Wood Specialty Company, of Orillia, Ont., are installing a short saw mill rig, which will enable them to produce the bulk of the lumber used in broom handles and curtain poles from the log. The company will manufacture a large quantity of veneer next year.

—The new factory of Thomas Bros., at St. Thomas, Ont., is not yet completed, although over \$35,000 has been expended on buildings and machinery. The product of the factory will be brooms, brushes and woodenware. It is the intention to build a dry kiln and a saw mill to be operated in connection with the woodenware factory.

—Incorporation has been granted to the Great Northern Lumber Company, Limited, with a capital of \$50,000. The incorporators are J. B. Scott, John E. Martin, and W. R. Staveley, of Montreal; Solomon Cole, of Port Fortune; and H. T. Evans, of Lachine. It is proposed to take over the saw-mill property of J. B. Scott at Conception, Que., at a valuation of \$24,700.

—The Newfoundland properties of the Highland Lumber Company, Parrsboro Lumber Company and a number of smaller concerns have been purchased by a Canadian-American syndicate for \$150,000. The deal was effected through H. J. Crowe, of Halifax. It is understood to be the intention of the syndicate to operate the properties on an enlarged scale.

—Nelson Carter has established a shingle mill at Port Haney, on the main line of the C. P. R. about twenty miles from New Westminster, B. C. Only one machine, with a daily capacity of 50,000 shingles, has been put in, but should the venture prove a success more machines will be added. There are large tracts of cedar timber near Port Haney.

—Two men named Coffin and Farrell were engaged at Rat Portage to work for D. L. Mather in one of his tie camps at Vermillion Bay. Their fares were advanced them but on arriving at the Bay they refused to go to work. They were consequently placed under arrest for breach of contract and were sentenced by the magistrate of Rat Portage to eight days' imprisonment for the offence.

—The lumber industry of South-East Kootenay, in British Columbia, has assumed large proportions. In almost every town in the district one or two saw mills, are in operation. Mills are located at Moyie, Cranbrook, Mariesville, Wausaw, Fernie, Elko and Jaffray, and one having a capacity of 50,000 feet per day is being built at South Wardner. Preparations are being made for the erection of several mills on the Kootenay river near the international boundary.

—James York, of Chesterville, Ont., is now erecting a large sash and door factory and planing mill to replace the one destroyed by fire last spring. He is building on modern plans with a floor space of over 9,000 square feet. The machinery equipment will be up-to-date in every respect and will be operated by a 100 h. p. Wheelock engine. Mr. York expects to have his new mill running by February 1st next.

—T. Ludgate and Angus McLeod, the latter of Bracebridge, Ont., have secured large timber limits on Arrow Lake, B. C., aggregating 200,000,000 feet of timber. They have decided to build a mill at Arrow Head with a capacity of 25,000,000 feet a year, to be of the band saw pattern. Logging operations will be conducted this winter, although the mill is not likely to be commenced until next spring.

—Ross & Taylor, of Exeter, Ont., have just completed their new planing mill. The building is of brick, main building 55 x 60 feet, two stories, with fire-proof roof. The building throughout is heated with steam, and is one of the finest and best equipped mills in Western Ontario. The firm has been in business since 1877 and have been fairly successful. They have now added to their already large business the wholesale manufacture of sash and doors and with this end in view have purchased lumber extensively.

—The Rat Portage Lumber Company have commenced the erection of a large saw mill at St. Boniface, a suburb of Winnipeg. The preliminary work will be done this fall and the mill erected early next spring. The site secured is a desirable one, consisting of 23 acres of land running back from the Red River. It is understood that no definite plans for the mill have yet been prepared and that none of the contracts for machinery have been let, but it is officially given out that the mill be equipped by a double cutting band saw and probably by a band resaw. The boilers will be supplied by the Bertram Engine Works Company, of Toronto.

THE LATE ANGUS McLEOD.

Mr. Angus McLeod, M. P. for North Ontario, died in St. Paul's Hospital, Vancouver, B. C., on November 18. Mr. McLeod was a resident of Bracebridge, Ont., but about two months ago went to British Columbia for the purpose of looking after his lumbering interests in that province. In conjunction with Mr. T. Ludgate, he was about to build a large saw mill at Arrowhead, where extensive limits had been secured. Shortly after his arrival at Vancouver he was stricken with typhoid fever and from the first it was feared that he would not survive. The news of his death was received with deep and widespread regret by a vast circle of friends and acquaintances, and the loss to the town of Bracebridge and the district which he represents in Parliament is almost irreparable.

Deceased was forty-five years of age, having been born in Campbellville, Halton county, on February 5, 1857. He began work in the lumber camps when quite young and afterwards was appointed manager of the Victoria Harbor Lumber Company, a position which he held for about twelve years. In 1891 he resigned and entered into partnership with Mr. George McCormick, M. P., of Orillia, since which time the two gentlemen have been engaged in the lumbering and contracting business. One of their present contracts is the construction of the Eastern Railway of Nova Scotia. Messrs. McCormick and McLeod first met when lumbering on the banks of the East river, near Huntsville, in 1872, and their friendship since has been close and unbroken.

Mr. McLeod was first elected to the House of Commons as Conservative member for North Ontario in the general election of 1900, with a majority of 518 over his opponent.

The remains of the deceased were brought to Bracebridge for interment.

TRADE NOTES.

The Kneeland & Bigelow Co., of Bay City, Mich., are installing one of Garland's patent chain conveyors in their plant near Lewiston, Mich.

The Lake of the Woods Milling Co., of Winnipeg, are installing one of the America Blower Company's "Moist Air" dry kilns for drying staves at Keewatin, Ont.

Rhodes, Curry & Company, of Amherst, N. S., have in their employ 830 workmen, and the monthly pay roll amounts to \$12,800. In the last two months they have built 480 cars.

The McFarlane-Neill Manufacturing Company, of St. Mary's, N. B., report a large business in peavies, boot calks, horse hames, etc. They are shipping to all parts of the Dominion.

On November 6th the M. Garland Company, of Bay City, Mich., shipped a carload of machinery, including a sixteen-saw slab slasher, to the Johannesburg Mfg Company, Johannesburg, Mich., this being the third carload of machinery they have shipped them for their new mill. The same firm have three of their band mills in operation.

Incorporation has been granted to the Restigouche Foundry & Supply Company, of Campbellton, N. B., with a capital stock of \$100,000. The incorporators are Kilgour Shives, W. J. Duncan, W. A. Mott, Richard O'Leary, W. S. Montgomery and Thomas Malcolm. The company will take over the foundry business of Duncan & McLellan at Campbellton.

The America Blower Company's factory at Detroit, Mich., is working "over-time" in all departments, owing to the very large amount of business on hand. Among recent dry kiln sales they mention the following: Wabash (Ind.) Cabinet Co.; Peter Klerner, New Albany, Ind.; Mt. Pleasant (Mich.) Body Co.; Walker Sons, Walkerville, Ont.; Anderson Veneer Door Co.,

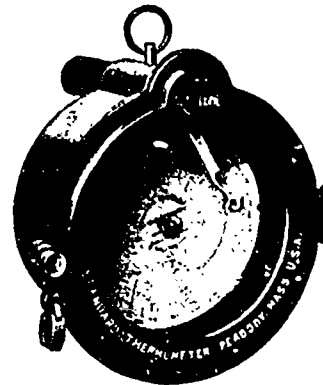
Jamestown, N.Y.; Northern Michigan Turning Works, Mackinaw City, Mich.; Pontiac Body Co., Pontiac, Mich.; Ann Arbor (Mich.) Organ Co.; Lake of the Woods Milling Co., Winnipeg, Man.

The attention of our readers is called to the advertisement first appearing in this number of the Sawyer & Massey Company, Limited, of Hamilton, Ont. This company manufacture a high grade of portable saw mills and engines, and also keep in stock rebuilt machines in good order. Readers of the LUMBERMAN will do well to correspond with this company when requiring anything in these lines.

DRY KILN

Recording Thermometers

Adopted by
A. H. ANDREWS CO.
STANDARD DRY KILN CO.
For their kilns they supply the trade.



NO. 300

HELIOS- UPTON CO., Peabody, Mass.

ANNOUNCEMENT

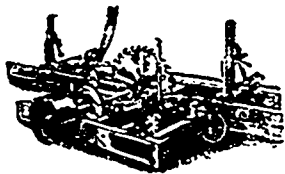
Mr. J. C. Leijenaar, formerly of the house of J. C. & Th. H. Leijenaar, Rotterdam, Holland, dealers and importers of Lumber and Timber, has assumed charge of our export department, in connection with our main Chicago office. His knowledge of the European trade requirements, together with our milling resources, will enable us to fill export orders promptly and satisfactorily.

We can furnish any kind of Hardwood Lumber, Short and Long Leaf Yellow Pine, band sawed 3/8", 1/2", 5/8", 3/4", 7/8", and 1" to 4", standard or long lengths, including timber, car material, wagon or dimension stock, shipped by all water route direct from our Vicksburg mills.

Write us for prices.

GEO. T. HOUSTON & CO.,
CHICAGO, ILL.

HIGH GRADE PORTABLE SAW MILLS



AND ENGINES

A few REBUILT Engines in Stock - Good as New.

We are also Agents for the De Loach Mill Machinery.

Sawyer & Massey Co., Limited
HAMILTON, CANADA

BOYNTON & COMPANY

MANUFACTURERS OF
EMBOSSED AND TURNED MOULDINGS
WOOD GRILLES,



SEND FOR



CATALOGUE.

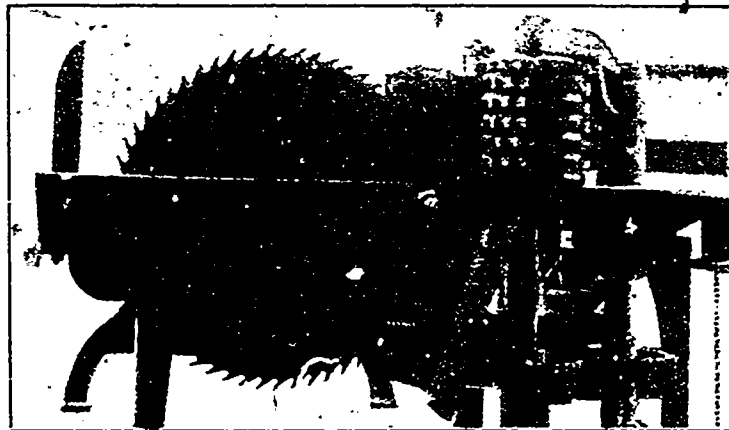


AND AUTOMATIC TURNINGS

67 Washington St., W - CHICAGO, ILL

Please mention CANADA LUMBERMAN when corresponding with advertisers.

Increase the cut of your mill by using
DUNCAN'S PATENT RESAW for SLABS



MANUFACTURED BY WM. DUNCAN - 452 GUY STREET, MONTREAL.

WOOD PULP DEPARTMENT

THE OUIATCHOUAN PULP COMPANY.

One of the most recent enterprises to be carried to completion in the Lake St. John District of Quebec is that of the Ouiatchouan Pulp Company. This company was incorporated by the Provincial Government on April 20th, 1901, with a capital of \$150,000, of which \$140,000 is paid up. The directors are Etienne Paradis, Quebec, president; J. J. Lavery, K. C., Quebec, secretary-treasurer; Wilbrod Jalbert and A. D. Dupuis, Quebec; A. C. de la Chevrotiere, M. D., Lotbiniere; Damase Jalbert, St. Jerome; Onesime Cote, St. Alphonse; and Jos. Brassard, Roberval.

The company own 150,000 miles of spruce limits around Lakes Ouiatchouan, Bouchette and des Commissaires, at a distance of about 15 to 20 miles from Ouiatchouan Falls, where a pulp mill has been built. The logs can be conveniently driven down the Ouiatchouan river. The company also own a large saw mill along the line of the Quebec and Lake St. John Railway.

The pulp mill consists of a main building, 200x100 feet, and buildings containing barkers, heating apparatus, etc. The height of the falls is 250 feet, giving the company an actual head of 240 feet. The steel flume carrying the water is 480 feet long and 61-2 feet in diameter. The capacity of the mill is six grinders, with eight wet machines, producing 30 tons of pulp per day. The steam mill to the left propels the barkers. The pulp wood passes down by the small sluice which is seen running off the mountain edge towards the left, is then taken back to the barker by a chain and then carried in the same manner to the grinders, which are in the lower part of the building to the right. The steam mill is heated with the bark taken from the pulp mill.

The water wheels comprise two special 61-inch Victor high pressure turbines furnished by the Stilwell-Rierce and Smith-Vaile Company, of Dayton, Ohio, each turbine operating three grinders; one special 28-inch Victor high pressure turbine operating the machinery, i. e., wet machines, pumps, centrifugal screens, pumps, etc.; and one special 14-inch Victor high pressure turbine operating the dynamo.

The wet machines, grinding machines, pumps, shafting, connections and water pipe were supplied by Carrier, Laine & Company, of Levis, Que., and the centrifugal screens by Baker & Shevlin, of Syracuse, N. Y.

The mill was designed by Jos. Perron, of Jonquiere, Chicoutimi county, and W. Jalbert, 113 St. James street, Quebec.

The company are provided with convenient shipping facilities, a railway siding running to the pulp shed now

in course of erection. The mill is located 184 miles distant from Quebec city.

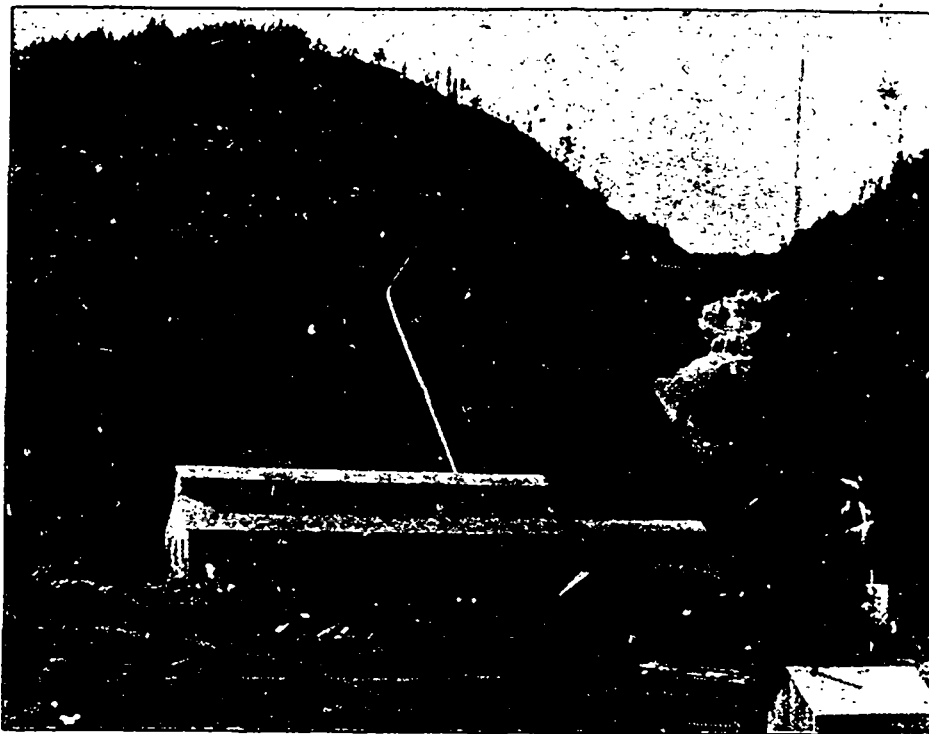
QUEBEC PULP WOOD ASSOCIATION.

The Province of Quebec Pulp Wood Association held a meeting in Quebec city on October 23rd to discuss the question of an export duty on pulp wood. There was an informal discussion and it was decided to meet again at Sherbrooke on November 6th. At the

"That a delegation composed of all the directors of the association wait upon the Commissioner of Crown Lands, the Hon. S. N. Parent, in Quebec, Friday, 7th November, at 4.30 p. m., with a view of having the stumpage dues on pulp wood replaced at \$1.00 per cord on all pulp wood cut on crown lands in future, with a rebate of \$1.50 upon pulp wood manufactured in pulp in Canada, and to take up any other questions relating to the regulations in regard to sale and manufacture of pulp wood in the province.

The delegation appointed comprised Messrs. Price, Tobin, McCrean, St. Pierre, Poulin, Nadeau, Howard and Smith.

Regarding an export duty no resolution was agreed upon. The views of the members, it is understood, differ somewhat regarding the question, though many of them are strongly in favour of such a duty. Some fear that it would give the pulpwood business a setback, while others say that in a few years there will be mills enough in the province to exhaust the supply.



PULP MILL OF THE OUIATCHOUAN PULP COMPANY, OUIATCHOUAN FALLS, QUE.

Sherbrooke meeting Mr. H. M. Price, of Quebec, presided, and there were present: Messrs. E. W. Tobin, M. P., Brompton Falls; T. A. Cousins and G. C. Poulin, St. Johns; G. P. Nadeau, Stanfold; B. C. Howard, N. N. Walley, F. N. McRea, Sherbrooke; John Champagneau, D'Israeli; O. Brouillard, Carmel; O. C. Morrisette, Lake Megantic; E. Legaux, Tring Junction.

After much discussion of the pulp wood question in which the probable effects of an export duty were considered, the following resolution, moved by B. C. Howard and seconded by O. Brouillard, was unanimously adopted, viz.:

and there will be no need of an export duty on raw material. They consider that a rebate of stumpage dues as mentioned in the resolution above will have a tendency to hasten that time.

AN AMERICAN VIEW.

Mr. C. W. Rantoul, jr., manager of the Sturgeon Falls Pulp Company, who has recently removed from the United States to Canada, thus expresses himself: "It seems to me self-evident that if Canada prevented pulpwood leaving her Provinces for the United States, that country would be obliged either to purchase pulp from Canada or remove its import duties on Canadian

JOSEPH H. WALLACE, C. E.
MILL AND HYDRAULIC ENGINEER
PULP AND PAPER MILLS.

A. U. Jaastad, M. E., Associate Steam and Electrical Engineer

WATER POWER DEVELOPMENTS

Surveys, Examinations, Reports,
Preliminary Estimates, Plans,
Specifications, Consultation.

DREWSSEN COMPANY
CHEMISTS AND MILL EXPERTS
SULPHITE PULP MILLS

Drewsen Acid System
Drewsen Reclaiming System
Richards-Drewsen Chip Separator
Herreshoff Pyrites Furnace

The above are associated in the furnishing of expert services for industrial development.

OFFICES: Temple Court Building, Beekman and Nassau Streets,

NEW YORK

paper. Considering the rapid depreciation of the American spruce supply, Canada will doubtless, in the near future, supply a largely increased amount of paper and pulp for the American markets. Any action of the Government in keeping her wood in her own boundaries will tend to hasten the arrival of this period."

MAY BUY CANADIAN PULP.

Paul Dupuy, business manager of Le Petit Parisien, and son of Jean Dupuy, French Minister of Agriculture under the Waldeck-Rousseau Ministry, recently arrived in the United States. M. Dupuy has come to study American methods of conducting newspapers, and especially to learn if he cannot procure paper in a more economical manner. "I want to look into the newspaper business in the United States," he said. After spending a month in New York I am going to Canada to look into the paper question. It costs us more in France for paper than it does here. We pay 30 francs for 100 kilos. Nevertheless we use 43,000 kilos a day, and Le Petit Parisien's paper bill for a year is about

\$1,400,000. I am going to see if we cannot import pulp from Canada. France imposes a small tariff on pulp."

PULP NOTES.

It is reported that rapid progress is being made with the new pulp mill at St. George, N. B.

The Brompton Pulp & Paper Company, of Brompton Falls, Que., expect to have their mill completed early in the new year. They recently purchased from Adolphe Conway 3,000 acres of timber limits in Weedon, Dudswell and Lingwick townships.

The annual meeting of the Laurentide Pulp Company, Grand Mere, Que., was held in Montreal last week. The annual report was presented and unanimously adopted. At a meeting of the new directors Sir William Van Horne was re-elected president of the company, and George Cahoon, jr., vice-president.

The Bella Coola Pulp & Paper Company has been incorporated at Tacoma, Wash., the promoters being C. W. Thompson, Marks Smaby, R. M. Thompson, C. H. Thompson and Theodore Shenkenburg. The company has secured large timber areas bordering on the

Bella Coola river in British Columbia and propose to erect a pulp mill, the primary object of which is said to be to supply a paper mill soon to be erected at Tacoma.

The North River Pulp & Lumber Company, of Baddeck, Cape Breton, will probably select a site for their proposed pulp mill immediately. F. G. D. Barajim, resident manager of the company, is in favor of locating at North River Centre. The company's timber possessions cover almost all the ungranted lands in the county of Victoria and a large portion of Northern Inverness. They have already expended about \$100,000 in erecting saw mills and on barking machinery, and the contemplated pulp mill will cost at least half a million more.

The British Canadian Pulp Company, Limited, has been incorporated, with a capital of \$500,000 and head office at Toronto. The incorporators are His Honor Judge McDougall, F. A. Ritchie, T. P. Coffee, C. S. Smoke and J. J. Warren, all of Toronto. Mr. Warren, presumably acting for the company, has requested a bonus of \$15,000 from the town of North Bay, Ont., as an inducement to establish their mill at that place. The agreement provides that there shall be an expenditure of \$250,000 in buildings and plant. The question will be voted on by the ratepayers on January 6th.

The John Bertram & Sons Co., Limited
DUNDAS, ONTARIO

Manufacturers of

Machine Tools

OF ALL KINDS

Correspondence Solicited.

Established over 40 years.

CHAS. H. VOGEL

A. M. Can. Soc. C. E.

47 and 48 Carleton Chambers,

OTTAWA, CAN.

Long Distance Phone 1791.

MILL AND HYDRAULIC ENGINEER

PULP MILLS AND WATER POWER

ESTIMATES, PLANS, SUPERVISION AND CONTRACTS

SPECIALTIES.—Paper, Pulp and Sulphite Fibre Mills, Electric Plants Surveys and Improvements of Water Power.

Saw Sharpening Wheels

of PURE CANADA CORUNDUM.
Quick, Cool, Strong, Durable.

HART EMERY WHEEL CO., LIMITED
Hamilton, Canada

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON, ONT.

FINE BANK OFFICE, COURT HOUSE & DRUG STORE FITTINGS. OFFICE, SCHOOL, CHURCH & LADGE FURNITURE.

SEND FOR CATALOGUE

The Crocker Patent Turbine

The wheel, as shown in cut, is for use in steel case. With some modifications it may be arranged for setting in open wooden flume or for bolting to outside of flume.



Send particulars of your water power and we will send you our 90 page catalogue and preliminary information.

Engineer sent to any point for consultation and report.

Some recent contracts filed and under way are the following :

Brompton Pulp and Paper Co., Brompton Falls, Ont.
St. George Pulp and Paper Co., St. George, N. B.
J. R. Booth, Ottawa, Ont.
Georgetown Electric Co., Glen William, Ont.

Town of Cornwall, Ont.
D. F. Jones Mfg. Co., Gananoque, Ont.
Jos. Beaumont, Glen William, Ont.
Kinleith Paper Co., St. Catharines, Ont.

THE JENCKES MACHINE CO., Head Office and Works:
35-40 Lansdowne Street,
Sherbrooke, Que., Canada

81 York Street, TORONTO, ONT.
MONTREAL, QUE. HALIFAX, N. S.
ROSSLAND AND GREENWOOD, B. C.
Winnipeg Machinery and Supply Co., Agents, WINNIPEG, MANITOBA

THE ONTARIO-SLOCAN LUMBER COMPANY

A company bearing the above name has been organized for the purpose of building a saw mill at Slocan City, B. C.; the promoters being Ontario men. The officers are: J. B. Tudhope, Orillia, president; Thos. Chew, Midland, vice-president; J. H. Lavallee, Orillia, secretary-treasurer; George Chew, Midland, general manager. The property-owners of Slocan City, by a large majority, have agreed to give the company a site and exemption from taxation for ten years. It is the intention to build a mill to cost \$100,000, to consist of saw, shingle and lath mills, dry kiln and all appurtenances necessary in a modern plant. The company will cater to the demands of Manitoba and the North West and the eastern provinces. Limits containing over 300,000,000 feet of splendid timber, located on the waters of Slocan lake, have been secured. It is the intention to proceed immediately with the erection of the mill, Thomas Chew having gone west for that purpose.

DUNCAN'S PATENT RESAW FOR SLABS.

Wm. Duncan, of Montreal, has put on the market what seems to be one of the best resaws yet built. A number of his machines have been running in different parts of Canada for over two years, giving the best of satisfaction. One resaw is doing the re-sawing of four mills for the Hawkesbury Lumber Company, of Hawkesbury, and giving splendid results.

The machine is very strong and heavy, being built entirely of iron and weighing over thirty-two hundred pounds, with a strong, heavy spindle. The feed rolls are large, being twelve inches in diameter and geared differently from all other resaws. The driving gears do not require to slip on their keys with the full strain of the work on them, all the gears being keyed tight to the shaft. They are geared in such a way as to allow the feed roll to open and close easily to the various thicknesses of the slab while passing through the saw. Large knots on the slab do not interfere with the resaw doing good work owing to the fact that the feed roll moves so easily.

Owing to the construction of the machine there is not as much pressure required on the press roll to drive the slab through as is generally required on machines of this kind; consequently a narrow slab with a thick edge will not be forced so hard against the face roll as to turn it and make a board with a thin edge, but there is just enough pressure used on the press roll to

pass the slab through quickly and turn out well manufactured lumber, any thickness, from 5/8 of an inch up to 3 inches thick. The various thicknesses required can be instantly and accurately changed at any time to take from the slab whatever thickness of board it will give, also any one thickness can be adjusted without interfering with any of the other sizes. It is claimed that this machine in a small mill with a circular saw can be made to increase the output of the mill over 50 per cent. by sawing the small logs up the middle by the large saw and carriage and then putting them through the resaw a couple of times if necessary. Only one man is required to operate the machine, producing from 20 to 30 thousand feet per 10 hours.

A card to W. Duncan, 452 Guy street, Montreal, will bring further particulars.

C. P. Easton & Company are said to have decided to build a mill at once on their timber limits recently purchased in the Province of Quebec. It is probable that they will retain their yard at Albany.

Shippers of lumber to the Transvaal are now able to export lumber to that country without having to pay a duty. The duty of 7 1/2 per cent. has been temporarily removed pending the establishment of a Customs union. This will result in a stimulation of the demand for lumber from that country.

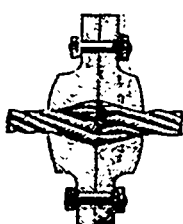
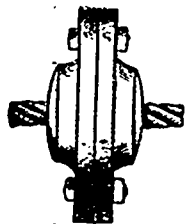
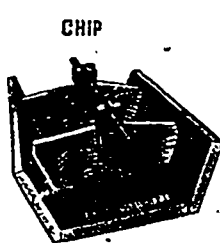
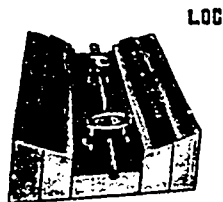
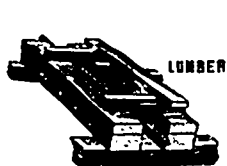
To Those Who Carry Insurance on Lumber

You are compelled to pay more for your insurance to-day than a year ago. This is particularly true in Canada where rates have been abnormally increased by Tarriff Association Companies. It is our business to insure nothing but lumber. We study the advantages offered by each risk submitted and accept only the best moral and physical hazards. Thus by carrying only selected risks we can offer lower rates. We are saving money for hundreds of lumber dealers. Why not let us take care of from \$1,000 to \$20,000 of your insurance?

For information apply direct to our home office,

LUMBER UNDERWRITERS, 66 Broadway, New York.

Band and Circular Mills,
Band Re-Saws, Edgers, Trimmers,
Lath Machinery, Slab Slashers,



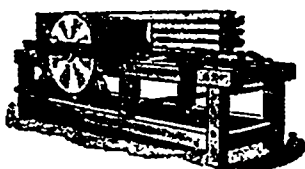
Kline Steam
Log Decks
and
Loaders
Steam Feeds
Steam Niggers
Conveyors
for all
Purposes



The M. Garland Co.

Bay City, Mich., U. S. A.
Manufacturers of High Grade Saw Mill
and Conveying Machinery

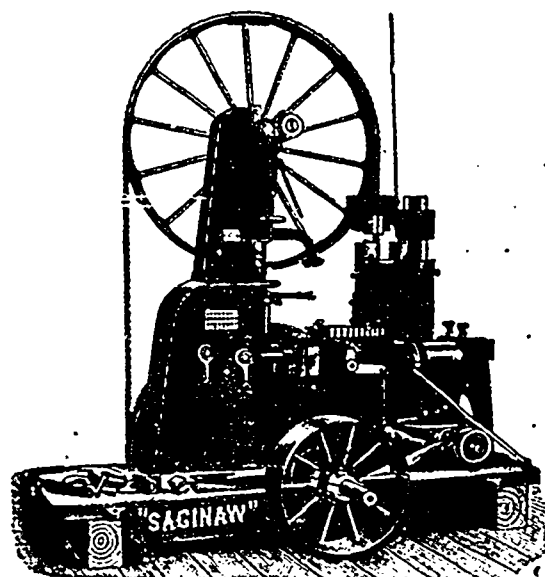
✻ ✻ Saw Mill Architects ✻ ✻



750

MERSHON BAND RE-SAWS

IN DAILY USE.



SAGINAW BAND RE-SAW.

Buy Direct and Get the Genuine

W. B. MERSHON & CO.

SAGINAW, MICH., U.S.A.

THE ROBB ENGINEERING COMPANY.

The Robb Engineering Company, of Amherst, Nova Scotia, are about to make extensive enlargements and improvements to their works. This step has been made necessary by the rapid growth of the business, the volume of which has nearly doubled within the last two years. It is proposed to erect next year a new machine shop 100 x 250 feet in size, and to rearrange the other departments to the best advantage, placing the buildings so as to permit of their further extensions when necessary. The machine shop, boiler shop and foundry will be equipped with travelling cranes. A new electric plant will be installed to operate these cranes and many of the machines in the boiler and machine shops, as well as to light the works.

A walk through the works reveals the fact that the management is actuated by progressive principles. Every device calculated to reduce the cost of manufacture and render more perfect the product, is eagerly sought for and adopted. In some instances where a suitable device could not be found to perform a certain kind of work, the inventive genius of the firm has proved equal to the emergency. One of the latest of these in-

ventions is the Robb-Armstrong Sweet governor, patents for which have been applied for in Canada, the United States and Europe. This new governing device is said to embody the advantages of the Sweet and Rice inertia governor and is so designed as to avoid friction.

The company have a most excellent system of preserving for ready reference in the details of manufacture and tests of each engine turned out, so that any future troubles in operation can be promptly and certainly remedied.

Electric, hydraulic and pneumatic power are employed in the works, the first for lighting and power, the second for operating the heavy drills, and the third for operating the lighter drills, these latter being attached to flexible hose filled with compressed air, and thus made available for use at any place inside the shops or even outside.

The company have now nearly ready for shipment four engines for the Trinidad and one for the Demerara electric railways. They are each of 450 h. p. capacity. Last year they were honored by receiving an order from the Technical School of Manchester, England, for an engine which should exemplify the best features of American design and construction.

P. PAYETTE & CO.

Manufacturers of Saw Mill and Engine Machinery, and all kinds of Marine Machinery.
PENKANGUISHAN, ONT.



10 inch Swing;
\$4.50 Net Cash, 14 inch Swing, \$5.40 Net Cash.
Emery Wheel not included.

Grinding Machines, Saw Gummets, Diamond Tools, Knife Grinders, Emery, etc., etc.

THE TANITE CO.
Stroudsburg, Penna.

The Bradley, Levy & Weston Machinery Co.,
Dealers in Limited.
Engines, Boilers, Saw Mills, Etc.
Toronto, Ont.

OILS

Manufacturers High-grade Cylinder, Machine and Sawmill Oils.

Calypsol Grease

for Sawmill Purposes a Speciality. Our products are made from finest Pennsylvania stocks. We solicit your correspondence.

17 St. John St., Montreal. Commercial Oil Co.,
Offices and Works: Manchester, Eng. Hamilton, Ont.
Hamburg, Germany. Newark, N. J. Chicago, Ill.

Every Lumberman Wants It
35 cents buys it

SCRIBNER'S LUMBER and LOG BOOK

Address: The CANADA LUMBERMAN Toronto



Sole Canadian Agents :: Prices Reduced
WATERLOUS BRANTFORD, CANADA.

WALKERVILLE LOG AND LUMBER SLEIGHS AND WAGONS

ARE THE BEST.
Special Wagons also Built to Order.
Write to WALKERVILLE WAGON CO., Walkerville Ont.

Please mention CANADA LUMBERMAN when corresponding with advertisers.



OUR EXTRA HAND-MADE AXE
This Axle stands better in frosty weather than any axle made. Send for sample. Can supply any pattern.
CAMPBELL BROS. Mfrs. St. John, N.

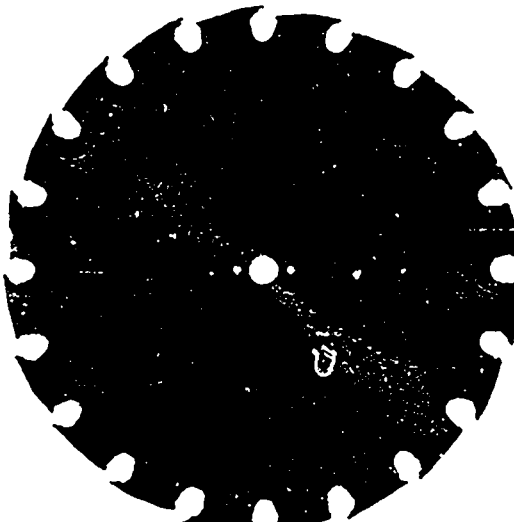
ESTABLISHED 1849.
CHARLES F. CLARK, President. JARED CHITTENDEN, Treasurer.
BRADSTREET'S
Capital and Surplus, \$1,500,000.
Offices Throughout the Civilized World.
Executive Offices: Nos. 345 and 348 Broadway, New York City, U.S.A.
THE BRADSTREET COMPANY gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchants, by the merchants, for the merchants. In procuring, verifying and promulgating information, no effort is spared, and no reasonable expense considered too great, that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world.
Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary and business corporations. Specific terms may be obtained by addressing the company or any of its offices. Correspondence invited.
THE BRADSTREETS COMPANY.
OFFICES IN CANADA: Halifax, N.S. Hamilton, Ont. London Ont.; Montreal, Que.; Ottawa, Ont.; Quebec, Que.; St. John, N.B.; Toronto, Ont.; Vancouver, B.C.; Winnipeg, Man.
THOS. C. IRVING, Gen. Man. Western Canada, Toronto



The ...
QUEEN CITY OIL CO. LIMITED

Head Office: TORONTO.
HIGHEST GRADES OF
Refined Oils Lubricating Oils
AND ALL
Petroleum Products

OVER 35,000 IN USE IN EVERY KIND OF TIMBER.



THE TWENTIETH CENTURY SAW

Our Chisel-Tooth Saw is adapted to all kinds and conditions of sawing, and does equally well in hard or soft woods, winter or summer, large or small mills.

It increases the output of the mill, requires less power and makes better lumber at less cost than any other saw.

BEWARE OF IMITATIONS.
THE GENUINE IS MADE ONLY BY

R. HOE & CO.

504 to 520 Grand Street, NEW YORK, U. S. A.

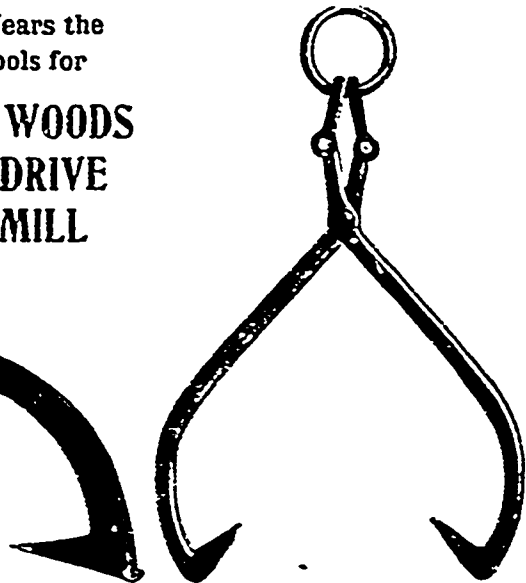
Catalogues with Prices and Further Particulars Sent on Application.

THE ONLY SUCCESSFUL INSERTED-TOOTH SAW.

BLUE LINE LUMBERING TOOLS

For Forty Years the Standard Tools for

The WOODS
The DRIVE
The MILL



We manufacture a full line of Cant Hooks, Peavies, Pike Poles, Skidding Tongs, Swamp Hooks, etc., etc., and would like to quote you prices delivered duty paid.

WRITE FOR OUR CATALOGUE SHOWING COMPLETE LINE

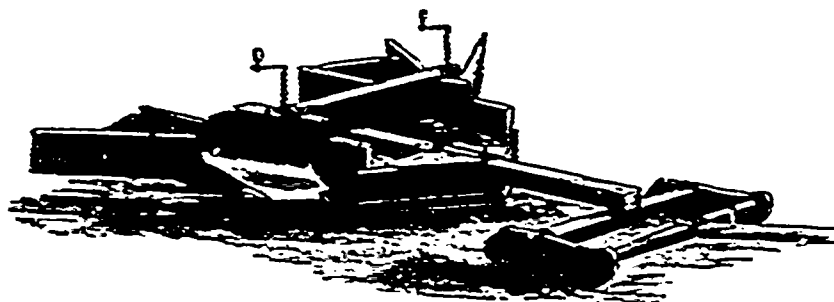
MORLEY BROTHERS, SAGINAW MICH., U. S. A.



Wickes Gangs are Money Makers for Progressive Saw-mill Operators Get the Genuine

MADE AND SOLD ONLY BY
WICKES BROS., SAGINAW, MICH.
Catalogue on application.

THE BRAZEL PATENT SNOW PLOUGH AND ROAD MAKER



For use in snow and ice roads. Saves sleighs and harness. Endorsed by all lumbermen who have used them. Cuts six inches wider than sleighs. Rolls snow clear of track. Cuts off knolls, fills up holes. Levels roads perfectly, prevents sleighs from sliding. Cuts off dirt and manure, leaving it on bank. Ploughs up, rolls out, and pushes clear 12 inches of loose snow each time machine passes over road.

An attachment for extra team behind machine can be furnished when required. Made all widths.

The Wilkinson Plough Co., Limited, Toronto, control the rights of manufacture and sale. Write for price and description.

The Wilkinson Plough Co., Limited, Toronto.



IN OUR LINE WE LEAD McFarlane Patent Wrot Forged Steel Socket Cant Dogs

Leads them all



Used in every Lumbering District from the Atlantic to the Pacific Ocean

Extra Fine Quality Split Rock
Maple Handles.

Round and Duck Bill Peaveys and
Cant Hooks

Write for quotations. If once used you will never return to the old malleable sockets.

THE MCFARLANE-NEILL MANUFACTURING CO., Limited ST. MARY'S, YORK COUNTY
New Brunswick

RE-OPENED FOR ORDERS

Blyth Handle Works

BLYTH, ONT.

MANUFACTURERS OF . . .

Tool Handles

of all Sizes.

LUMBER CAMP SUPPLIES A SPECIALTY

White Rock Maple and several Growth Rock Elm Furnished to the Trade . . .

Catalog on Application. E. LIVINGSTONE, Prop.

FRANK DENTON, Q. C. HERBERT L. DUNN
W. MULOCK BOULTBEE.

DENON, DUNN & BOULTBEE

Barristers, Solicitors, Notaries, etc.

National Trust Chambers. TORONTO

RAILS For Logging Tramways, Switches Etc.

New and Second Hand.

YARD LOCOMOTIVES

John J. Gartshore

83 Front St. West.

(Opposite Queen's Hotel.) Toronto.

P. H. WILBY 27 1/2 FRONT ST. EAST, TORONTO

Anglo Canadian Guaranteed English Oak-Tanned

Leather Belting

CAPATA (Balata Type) Belting

Camel Hair Belting

Made from pure Camel Hair Teon Belting

ESTABLISHED 1879.

The Stuart-Arbutnot Machinery Co

Limited.

WINNIPEG, MANITOBA

... Dealers In ...

Saw Mill Machinery, Woodworker's Machinery,

Engines and Boilers

MACHINERY AND MACHINERY SUPPLIES OF ALL KINDS.

REPAIRING PROMPTLY ATTENDED TO.

Just Received—One Carload Dodge Pulleys and Self-oiling Hangers

... Write us for Quotations

LUMBER HORSES

A SPECIALTY

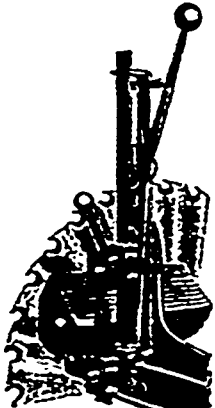
THE TELFER & CLIMIE COMPANY

19 St. Maurice Street,

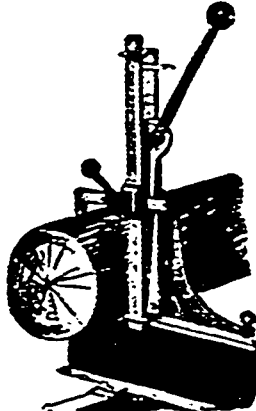
MONTREAL

Glass' Patent Duplex Mill Dogs

These dogs have no springs, no ratchet, no pawls, nothing to get out of order, but have a positive grip so that no log can become loose or turn while being sawed. Dogs can be fastened on any head block knee and will hold small blocks on single head block if necessary to do so. Upper and lower dogs can be used together or independent of each other.



Right Hand Duplex Dog



Right Hand Single Dog

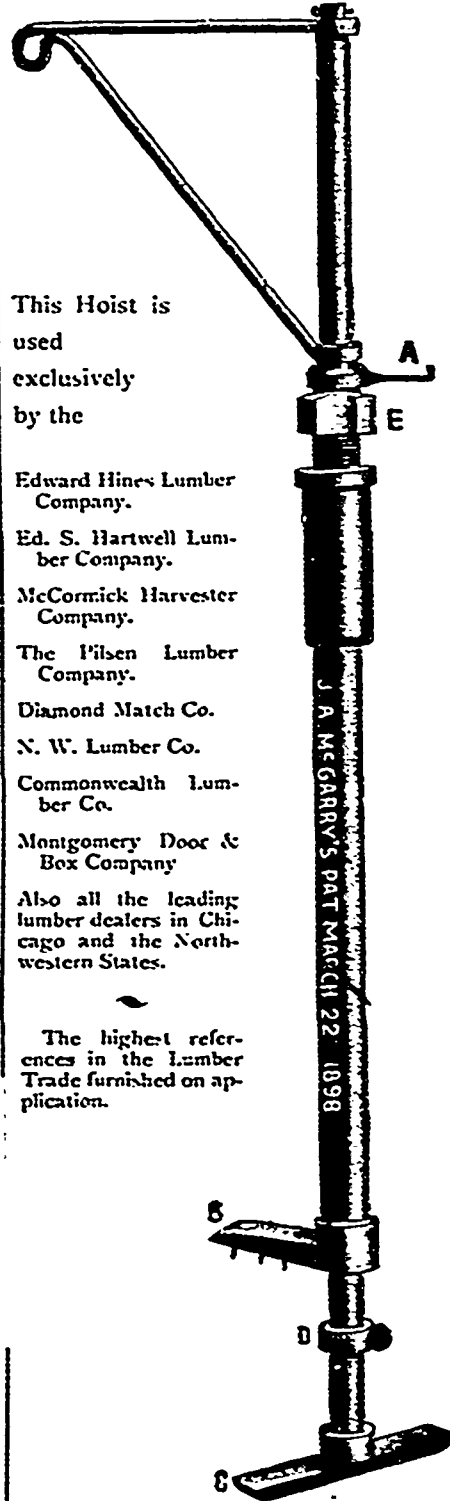
THE CANTON SAW COMPANY

Manufacturers of Saws, Saw Mill Dogs and Supplies.

South Rex Street, CANTON, OHIO

The Patent SAFETY LUMBER HOIST and LOWERING MACHINE

This Patent for the Dominion of Canada will be sold on very reasonable terms. The Patent is without a flaw.



This Hoist is used exclusively by the

Edward Hines Lumber Company.

Ed. S. Hartwell Lumber Company.

McCormick Harvester Company.

The Pilsen Lumber Company.

Diamond Match Co.

N. W. Lumber Co.

Commonwealth Lumber Co.

Montgomery Door & Box Company

Also all the leading lumber dealers in Chicago and the Northwestern States.

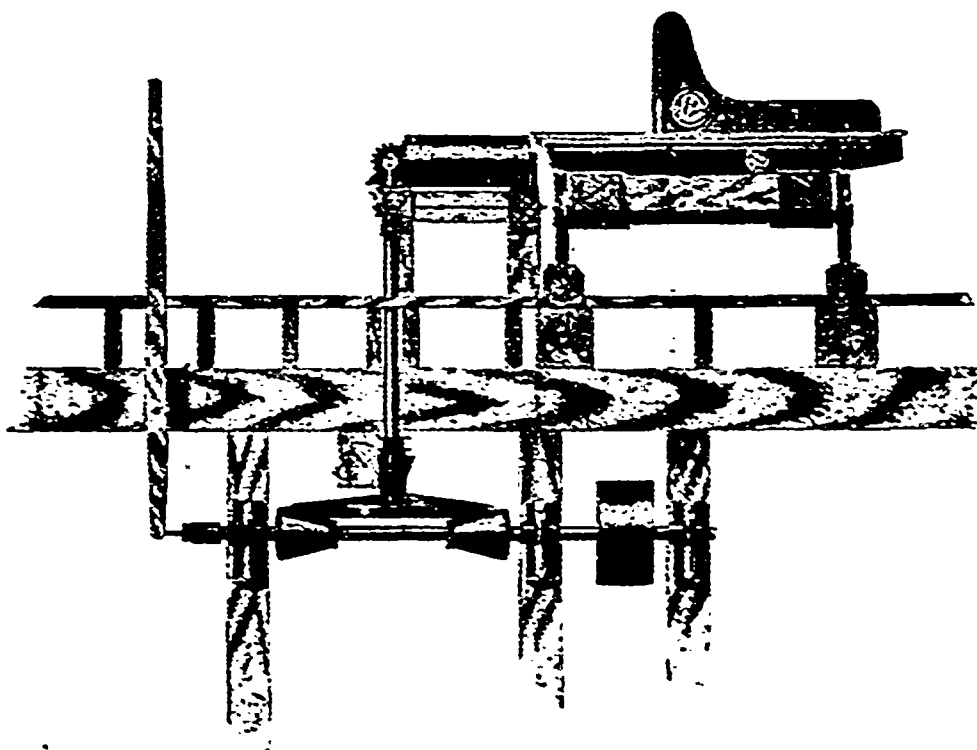
The highest references in the Lumber Trade furnished on application.

Address

John A. McGarry

Sole Patentee and Manufacturer for the United States and Canada.

1100 South Lincoln Street CHICAGO, ILL.



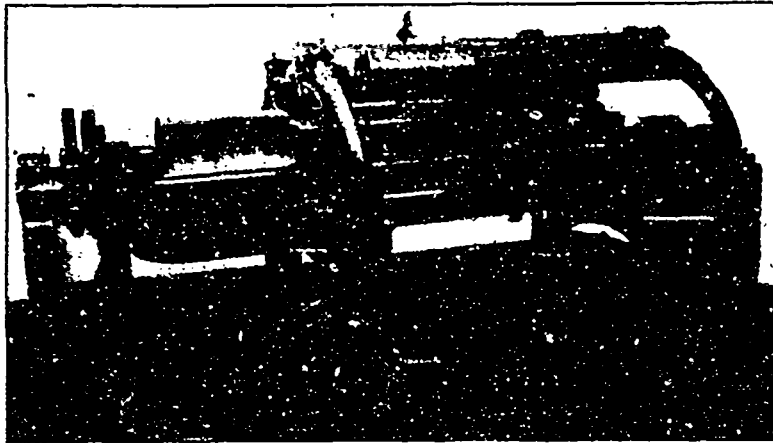
Friction Roll Drive

The accompanying cut shows you one of our Friction Roll Drives—it will drive the rolls either way. We make other styles, but you will find this a good one. We make the rig complete and any size of Roll you wish. We make rolls with connected stands—easy to put on. Chilled Tooth Rolls—Teeth do not wear. Pinions bolt on shaft anywhere. Concave Rolls for Log Decks Screwed Rolls. Also all kinds of Saw and Shingle Mill Machinery. It will pay you to send for our Catalogue and Prices.

Mowry & Sons, Gravenhurst, Ont.

Do It Right Now!

Write us and we will tell you all about our



Combination Gang Edger

The above cut represents what we call a 60-inch machine, i. e., the entire length of the feed rollers is 60 inches. The arbor is arranged with a gang of eleven saws for manufacturing 1-inch lumber from cuts 4, 6 and 8 inches through. The balance of machine is arranged with three moreable saws, one stationary or fast.

With this machine the cut of a mill can be increased at least 25 per cent. without any additional expense for labor, as a great deal of the sawing which is now done on the hand or circular can be done on this machine. It has rift flooring attachments, and is without question the best machine on the market. It has been in use in the larger mills for many years.

Read and Reflect

RHINELANDER, WIS.

Rodgers Iron Manufacturing Co., Muskegon, Mich.

Gentlemen:—Replying to yours we will say that the combined flooring mill and edger is doing good work and that we have no fault to find with it, as it is a very satisfactory running machine.

Respectfully,

BROWN BROS. LUMBER CO.

Our Guarantee Follows Every Machine

RODGERS IRON MFG. CO.
MUSKEGON, MICH.

DO YOU LACK STEAM?

WE CAN HELP YOU.

The Gordon Hollow Blast Grate



Makes the hottest fire of any device in existence.

Burns wet, green or frozen sawdust or other refuse readily.

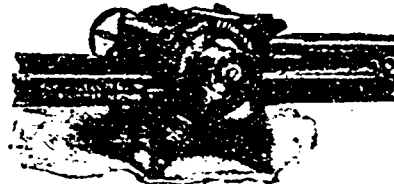
Develops every ounce of power a boiler is capable of generating regardless of the weather.

Outlasts several draft grates.

Edgers and Trimmers for Small and Medium Sized Mills

The "Tower" and "Tower" Extra 2 and 3 Saw Edgers

500 IN DAILY USE

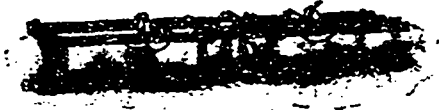


Among the reasons for the great popularity of these celebrated edgers are the following:

1. They take up little room.
2. They require little power.
3. The mechanism for shifting the saws is up-to-date, convenient and positive.
4. The feed rolls are adjustable in four directions, which means absolute accuracy. This feature is original with us.
5. The saws may be removed easily and quickly, without disturbing the arbor.
6. There is no edger made approaching them in cheapness.

Cheapest Trimmer on Earth

The "Tower" One-Man 2-Saw Trimmer.



With this trimmer one man can easily trim the output of a mill cutting up to 30,000 feet in ten hours. The operator shifts the saws as he walks toward the board to be trimmed. This saves time. There are two feeds, easily and quickly started, stopped or changed without stopping the saws.

MANUFACTURED ONLY BY

Gordon Hollow Blast Grate Co.,
GREENVILLE, MICH.

SEND FOR CATALOG D.

ESTABLISHED 1899.

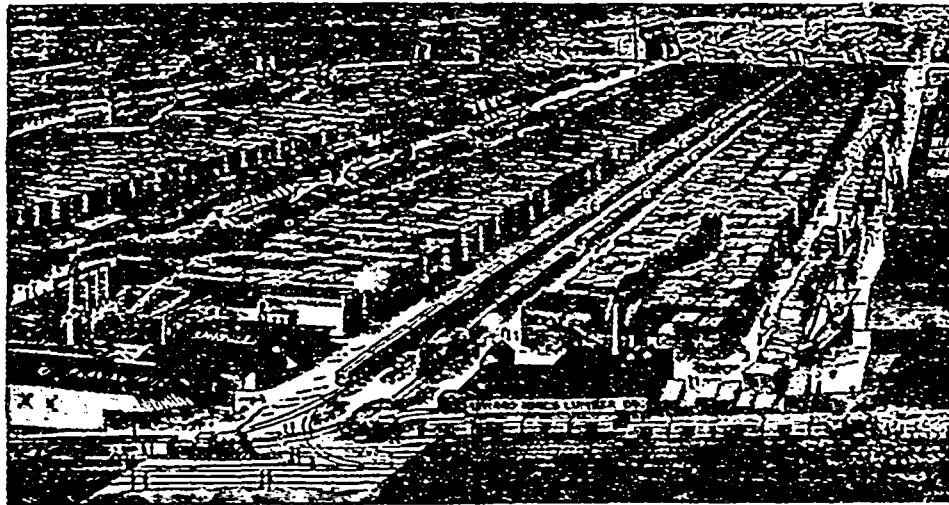
EDWARD HINES, PRESIDENT.

L. L. BARTH, VICE-PRESIDENT.

C. F. WIEHE, SECRETARY.

EDWARD HINES LUMBER COMPANY

CHICAGO, ILLINOIS



LARGEST LUMBER YARDS IN THE WORLD

Headquarters for Everything in the Lumber Line

We carry a complete stock of LONG, HEAVY TIMBER up to and including 16 x 16—60 feet long; LONG, HEAVY JOISTS, up to and including 3 x 4—36; CAN SHIP IMMEDIATELY. We also carry a complete stock of THE HIGHER GRADES OF LUMBER, especially from 1 inch up to 6 inches in thickness. UPPERS, SELECTS, SHOP STOCK, ETC. REMEMBER there is NO DUTY ON ROUGH LUMBER GOING TO CANADA and that we are making many shipments to Canada and the New England States. We solicit enquiries from that territory especially and will give same prompt and careful attention.

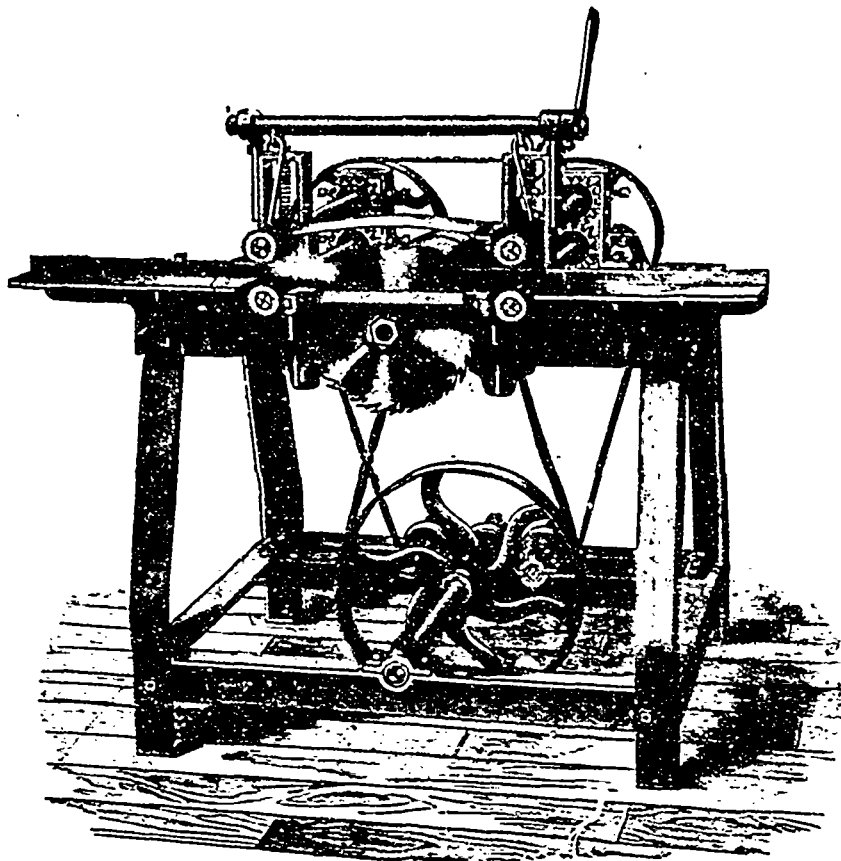
Improved Gang Lath Machine

This machine is entirely self contained—does not require a counter-shaft and pulley to drive the feed from.

It has a solid iron frame. The feed rolls are milled from solid steel bar and case hardened. In fact the machine is constructed of the best material throughout. Carries four 12 inch saws and will do fully as much work as any other machine made for the same purpose.

I manufacture other lath machines much heavier than this cut shows, and lath bolters of various capacities.

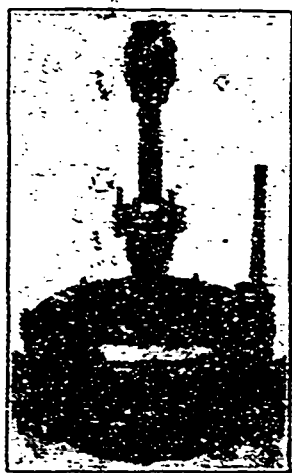
I also have a full line of saw mill and shingle mill machinery, and can quote low figures, especially to cash customers.



CATALOGUE FREE.

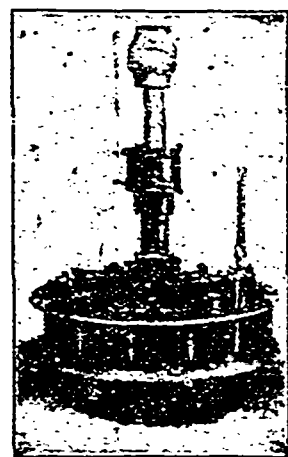
F. J. DRAKE, - Belleville, Ont.

Do You Need a Turbine?



Now is the best possible time for replacing your old, worn-out wheel with a new Turbine that will save Worry, save Time, and make Money for you. If you want a well built wheel, a wheel that will give you steady reliable power every day, a wheel that will save water, a wheel that will last you a lifetime, and that is sold at a reasonable price, then write us for catalogue and prices on the

Standard Leffel and Vulcan Turbines.



They are better developers to-day than ever before, and are growing in popularity, as our order books show.

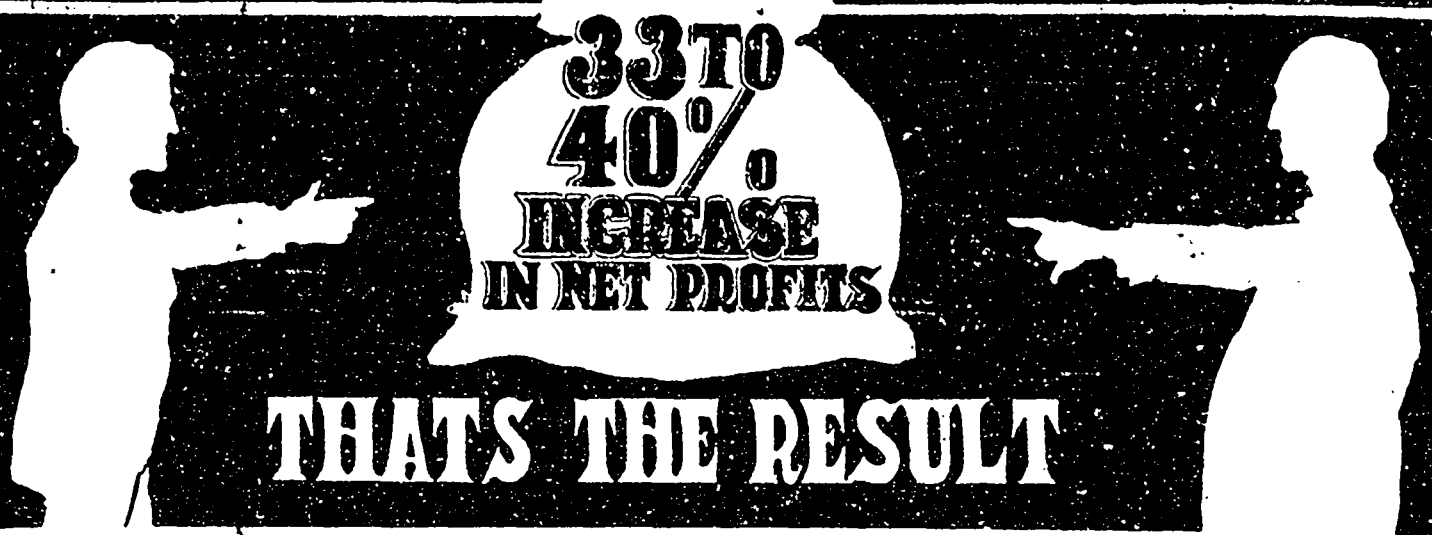
We have now for distribution our new **SAW** and **SHINGLE MILL MACHINERY CATALOGUES**, with engravings and descriptions of our machines with their latest improvements. We will be glad to send you one on receipt of your address. You cannot buy a better Portable Mill than the "Lane Improved".

MADISON WILLIAMS, PORT PERRY, ONT.

H. E. PLANT, Agent,
Cor. Common & Nazareth Sts., MONTREAL.

SUCCESSOR TO
PAXTON, TATE & CO.

Winnipeg Machinery & Supply Co.
Western Selling Agents, Winnipeg.



The double cutting Allis Band mill increases your output from 33 to 40 per cent. In some cases the increase is more than 40 per cent.

The Allis double cutting band cuts clean and cuts lumber of a uniform thickness. You don't have to take our word for these statements. Read the following letters. They are as strong an endorsement of the Allis double cutting band as you would want to see.

The Waterous Engine Works Co., Limited, Brantford, Ont.

PARRY SOUND, November 4, 1902.

GENTLEMEN:—As the season is drawing to a close I am in a position to state that after the manufacturing of about 18 million feet on one of your double cutting bands with steam set works, we are very much pleased with the outcome and find the product of saw culls will not exceed 5,000 feet, which is an exceptionally good record. All buyers remark that our stock is cut very uniform in thickness, which is also very gratifying to us as no doubt it will be to you. Very truly yours

(Signed) CHAS. R. SHAW

Manager Edwin S. Hartwell Lumber Company, Chicago, U.S.A.

Waterous Engine Works, Brantford.

PARRY SOUND, November 6, 1902.

DEAR SIR:—Replying to yours of the 27th ult. in regard to the merits of the double cutting band mill and steam set works over single cutting and hand set works, I beg to say that very much better results have been obtained with double band mill and steam set works, the average daily cut this season being some 91,000 feet per 11 hours, to 54,000 last year. The saw culls will not exceed 7,000 feet out of 18,000,000 feet of lumber. Yours truly,

(Signed) J. J. GRANT, Supt. Conger Lumber Co. Saw Mill.

Letters such as the above should convince the most sceptical as to the superiority of the Allis Double Cutting Band Saw and Steam Set Works.

With their use your production is increased tremendously at no increase of labor charge.

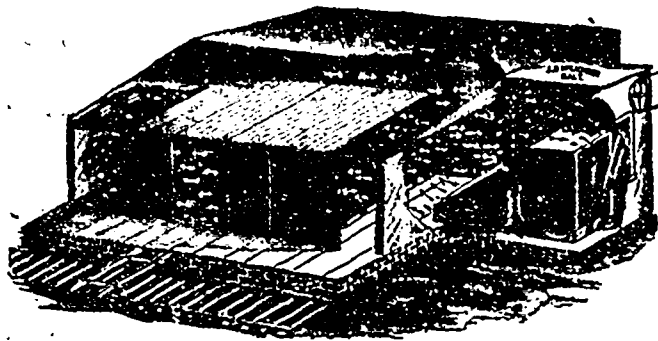
Let us tell you more about it

THE WATEROUS ENGINE WORKS CO.
 BRANCH OFFICES
 WINNIPEG
 AND VANCOUVER
 LIMITED
 BRANTFORD,
 CANADA.

McEachren Heating & Ventilating Co.

GALT, ONTARIO.

Our Dry Kiln Installations are all giving the best of satisfaction. We make both a natural draft kiln and a blower kiln. Our Steel Trucks and Transfer Cars are worth examining; they are cheap yet strong and durable.



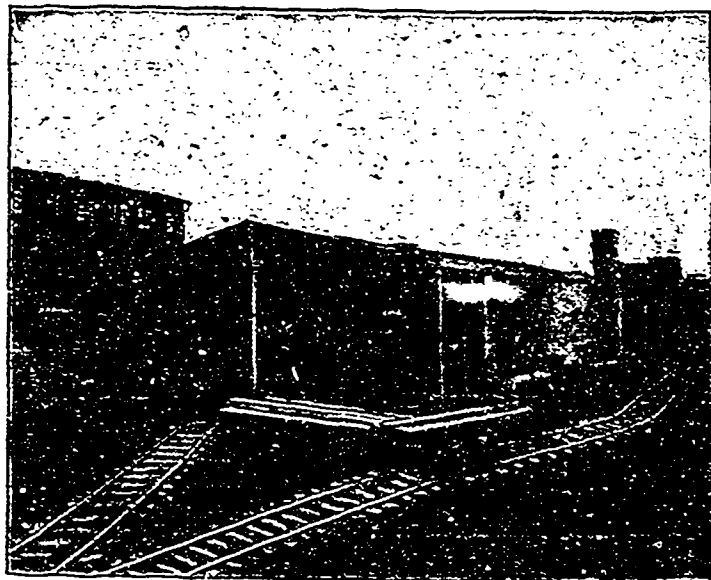
- Durability
- Efficiency
- Simplicity
- Economy

HERE AND THERE

The accompanying illustration shows an . . .

"A B C" Moist Air Dry Kiln

Installed at Memphis, Tenn., for the Memphis Furniture Co.



Catalogue No. 139L.

AMERICAN BLOWER CO.,

DETROIT, MICH.

New York.

Chicago.

London.

"WAY AHEAD OF THE BLOWER KILN"

That is what John B. Smith & Sons, Toronto, say about our Moist Air Dry Kiln. Here is the letter:

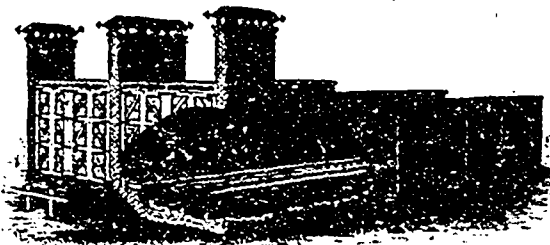
"The two kilns put in for us are working all right. They are way ahead of the Blower Kiln we are using."

This is a case of actual comparison and the result speaks for itself. If you want the most for your money invest in it

THE DRY KILN THAT DOES NOT DISAPPOINT

The Standard Dry Kiln

THE DRY KILN THAT DOES NOT DISAPPOINT



Other Canadian lumber concerns send us letters just as strong. Read them in our Catalogue "D." Write for it. Also for new list of users.

THE STANDARD DRY KILN CO.

Indianapolis, Ind.

PRACTICALLY STRETCHLESS

Canadian Oak Belting Co. Limited

BROCKVILLE, ONT.

SATISFACTION GUARANTEED

The Morton Moist Air Dry Kiln

There is no other Kiln like the Morton.
Send for Catalogue.

Many say they thought they had good kilns before they bought the Morton, but would be satisfied with nothing else now.

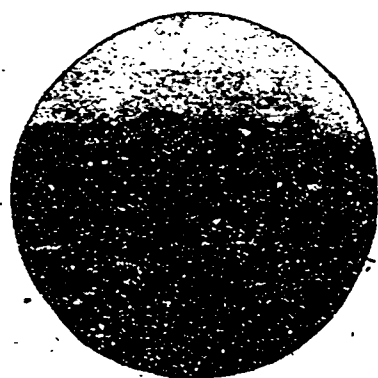
What Constitutes the Best Dry Kiln?

The one that gives the most universal satisfaction, which, without question, is the Morton.

The A. H. Andrews Co.,

30 Wabash Avenue,

Chicago, Illinois.



THE JAMES ROBERTSON CO., Limited.

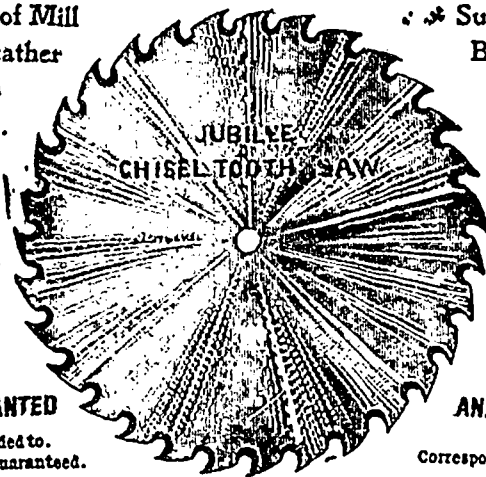
Manufacturers of..

Saws of All Description

••• A Full Line of Mill
Rubber and Leather
Metal, &c., always

••• Supplies, including
Belting, Rabbit
carried in stock.

Head Office:
144 William St.
MONTREAL



Factories at
MONTREAL,
TORONTO,
and
ST. JOHN, N.B.

ALL OUR SAWS
FULLY WARRANTED

Orders promptly attended to.
Satisfaction Guaranteed.

CIRCULAR, GANG
AND MILL SAWS
A SPECIALTY
Correspondence Solicited.

Rice Lewis & Son

Dealers in _____

LIMITED

BAR IRON AND STEEL

BOOM AND LOGGING **CHAINS** MADE TO ORDER

TORONTO

Write for
Prices.

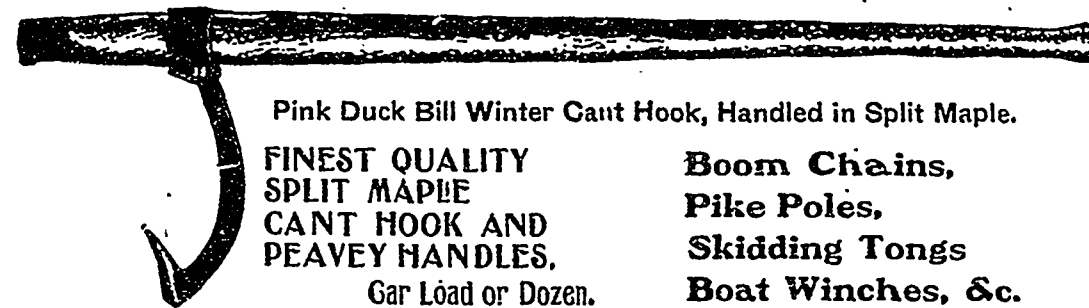
PINK LUMBERING TOOLS

The Standard Tools

In Every Province of the Dominion, * * * * *
* * * * * - New Zealand, Australia, Etc.



Pink Round Bill Peavey, Handled in Split Maple



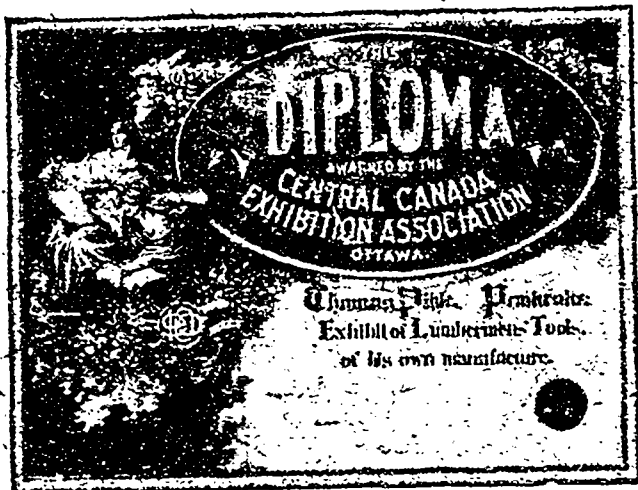
Pink Duck Bill Winter Cant Hook, Handled in Split Maple.

**FINEST QUALITY
SPLIT MAPLE
CANT HOOK AND
PEAVEY HANDLES.**

Car Load or Dozen.

**Boom Chains,
Pike Poles,
Skidding Tongs
Boat Winches, &c.**

Sold Throughout the Dominion by all Wholesale and Retail Hardware Merchants.



THOMAS PINK
Pembroke, Ont.

Send for Catalogue and Price List.

**LUMBER
AND
PULP**

SAW MILLS.—Complete equipments, on either the Circular, Band or Gang systems, manufactured, erected and handed over under guarantee to produce a specified output. We have been doing this sort of thing for years.

PULP MILLS.—The most advanced type of Pulp Mill Machinery and Supplies.

MILL SUPPLIES.—Absolutely everything required in manufactories, engine rooms or workshops. We carry extensive lines and can fill orders promptly.

SPECIAL MACHINERY.—No other establishment has the facilities we enjoy for constructing machinery required for special purposes.

Your inquiries are requested.

Estimates prepared on application.

We make liberal allowances for old machinery replaced by our modern plants

CARRIER, LAINE & CO.

Levis, Que.