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

L'Institut a microfilmé le meilleur exemplaire qu'il

lui a été possible de se procurer. Les détails de cet

may be bibliographically unique of the images in the reproduction significantly change the usual nuchecked below.	on, or which r	nay			! !	bibliog reprod	raphiq uite, o méth	ui sont pe que, qui pe ou qui peu ode norma	euvent ivent e:	modifi xiger u	er une ne mod	image lificatio	on
Coloured covers/ Couverture de couleur								ed pages/ le couleur					
Covers damaged/ Couverture endommagée							-	lamaged/ ndommag	jées				
Covers restored and/or la Couverture restaurée et/o	•					1	_	estored an estaurées (
Cover title missing/ Le titre de couverture ma	enque						_	liscoloured lécolorées,				:s	
Coloured maps/ Cartes géographiques en e	couleur					11	-	letached/ létachées					
Coloured ink (i.e. other t Encre de couleur (i.e. aut			·)			. /		rough/ arence					
Coloured plates and/or ill Planches et/ou illustration						11	-	of print (inégale d		ression	1		
Bound with other materia Relié avec d'autres docun								uous pagir ion contir		,			
Tight binding may cause along interior margin/ La reliure serrée peut cau	sor de l'ombre	ou de l				c	Compre	es index(es end un (de	es) inde				
distorsion le long de la ma	-		pear					n header to de l'en té					
within the text. Whenever been omitted from filming the lines part que certaines particular particu	ıg/						_	age of issu titre de l		son			
lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.						Caption of issue/ Titre de départ de la livraison							
,						1	Masthe Sénéric	ad <i>!</i> que (pério	diques) de la	livraiso	n	
Additional comments:/ Commentaires supplémen	Some staires:	page	es are	cut	off.								
This item is filmed at the reduc Ce document est filmé au taux				JS.									
10X 14X		!8X			22X	· · ·		26×	·		3(×	
12X	16X		20				24X			28X			32X

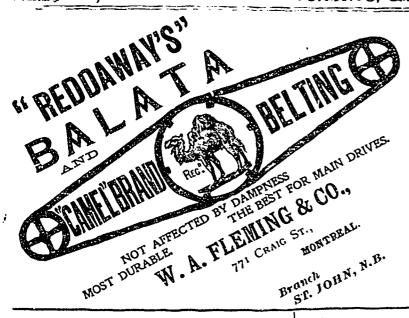
CANADA LUMBERAN

Wood-Workers', Manufacturers' and Millers' Gazette

VOLUMB XXIII.

TORONTO, CANADA, MARCH, 1903

Single Copies, 10 Cents.



The Ottawa Saw Co.

Middle Street, OTTAWA, ONT.

Sanvik Swedish Steel Band, Gang and Circular Saws P. M. FEENY, Manager.

GIL TEMPERED

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.,

J. J. Turner & Sons

MANUFACTURERS OF

umbermen's Tents, Waterproof Horse and Wagon Govers, Feed Bags, Goal Bags and Waterproof Glothing

OF EVERY DESCRIPTION.

PETERBOROUGH, ONT

Send for Catalogue "A."

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.

BABBITT METAL

When repairing your SAW AND PULF MILLS WOODWORKING PACTORIES, etc., use

GRAPHITE-MERALDERRORSMICH

CHEAPEST AND BEST Canadian Factory: WINDSOR, ONT.

DICK'S BELTINGS



Never is affected by wetness, and does not stetch.

Tansmission Power.

Always Uniform,

LARIE STOLK ON HAND.

WRITE TO SOLE AGENTS:

J. S. YOUNG, 15 Hospital Street, MONTREAL.

WIRE ROPE

.. Immediate Shipment from Stock. .

W. H. G. MUSSEN & GO.

MANUFACTURERS OF-

HIGH GRADE CIRCULAR AND LONG SAWS

UNEXCELLED

SHINGLE SAWS



THE

WM. HAMILTON MFG. GO., LIMITED,

PETERBOROUGH, ONTARIO.

909999

Designers and Builders..

of

New and Modern Saw Mills and Machinery for same

090000

WE ALSO BUILD

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

020020

The Wm. Hamilton Mfg. Co., Limited

Branck Office: VANCOUVER, B. C.

PETERBOROUGH, ONT.

3

www.THE www

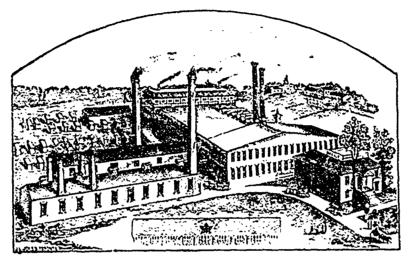
MAPLE LEAF SAW WORKS



Shurly & Dietrich GALT, ONT.

Manufacturers of

CIRCULAR SAWS
CANC SAWS
MILL SAWS
BAND SAWS
CROSS-CUT SAWS



Manufacturers of

HAND SAWS
BUCK SAWS
PLASTERING TROWELS
BUTCHER SAWS
STRAW KNIVES, &c.

THE SAME CAN BE THE CAN HAVE AND THE CAN HELD WITH THE CAN HAVE AND THE CA



GROUND THIN ON BACK

Save Labor

Save Gumming

Save Time

Save Files

This Saw Stands Without a Rival

AND IS THE

FASTEST CUTTING SAW IN THE WORLD!

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

Maple Leaf Saw Set

MANUFACTURED BY

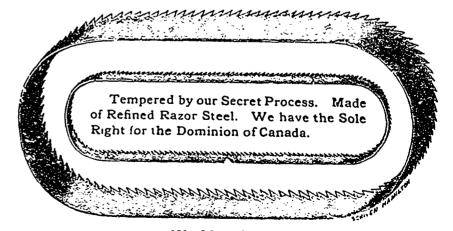
SHURLY & DIETRICH, Galt, Ont.

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

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



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



We Manufacture

HIGH GRADE BAND SAWS

of All Widths and Lengths.

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

BARGAIN LIST OF NEW AND

BOILERS

BOILERS

10 H. P. Clyde Marine Roller

60°x134" - 21 - 41 tubes

72°x1867" - 26 - 35 to 44°x166" - 46 - 35 to 44°x166" - 46 - 35 to 44°x166" - 46 - 35 to 47°x16" - 40 - 25 to 47

ENGINES 20 H P Engine & Borler on Wheels Waterons 10 Cornell Waterons Other Witerons Constitution of the P. Double Cylinder Classifier Engine S. 4 H. P. Double Cylinder Cids Parigra Marine 5 H. P. Vapor Engine New York Bindle 6 H. P. Gasoline Engine Nortary Make 8 H. P. Toronto Junction Make New 15 H. P. Haggas Make, New 15 H. P. Toronto Junction Make New 15 H. P. 4"x4" Polson 115xiS Hor, Slide Valve Engine, Goldic & Mc Culloch 9xi2 " Corliss Bed. Centre Crank Dutton New 88(10 Centre Crank Dutton N 7/528 ANA Vertical Plain Engine, Hamilton 587/8 Dutton, New 7/528 Automatic

WOOD WORKING MACHINERY

WOOD WORKING MAGHINERY
Left Hand Circular Saw Mill, No. 1 Jane
46 in, Circular Re-Saw, Galt Make
Wood Prame Swing Cut Off Saw
Railway Swing Cut-Off Saw Table
30" Bracket Band Saw, Goldie & McCulloch
20" Pedestal
2 Spindle Shaper, Cant Gourlay
No. 2-2 Spindle Shaper, Cant Gourlay
No. 1-2
12 in, Pony Planer, A Doig
20 in. Jackson Cochrane
24 in, C. B. Rogers
24 in No. 14 McCategor Gourlay Double Surfacet
24 in, Surfacet, I., Mitchell Co.
24 in No. 6 Gold e N. McCulloch Single Surfacet
13 in Planer, Matcher and Moulder, Nicholls
14 in Moulder and Beader Tompki S
WATER WHEFTS

WATER WHEELS

12 in Archimedian Brass Waterous 12 in Right Hand barrar, New. 21 in. Burnham 23 in. Burnham 30 in. Left-Hand 35 in. Right-Hand 48 in Vulcau

STONE CRUSHERS

No. 2 Dodge Stone Crushers No. 4 Portable Stone Crushers, Sanyer Massey Rotary Screen for Stone Crusher

No. 3 No. 0 Monogram Pans Sturtevant New. No. 1

Tools inspected and repaired in my own

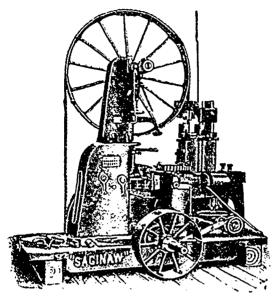
Stock List and Supply Catalog with Discount Sheet for the asking. I carry in stock a complete line of fron working tools, also engineers and millmens supplies.

W. H. PETRIE,

132 -33 35-37-39-141-43-45 From Street West. 8-10-12-14-16-18-20-22 Station Street, Toronto.

750 MERSHON BAND RE-SAWS

IN DAILY USE.



SALINAW BAND RE-SAW

Buy Direct and Get the Genuine

W.B. MERSHON & CO.

SAGINAW, MICH. U.S.A.

and and Circular Mills. and Re-Saws, Edgers, Trimmers,

Lath Machinery, Slab Slashers,

SLABEBSAWDUST Kline Steam Log Decks

and

CHIP

Steam Feeds Steam Niggers Conveyors

for all

Purposes

Loaders

涿

The M. Garland Co.

LOC

PATENT CABLE COUPLING

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

ند . Saw Mill Architects ند . به

R. SPENCE & CO..

Beech File Works HAMILTON, ONT.

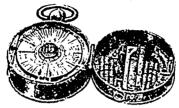
FILE AND RASP MANUFACTURERS

AND RE-CUTTERS.

A trial order solicited. Write for price lists and terms C. P. MOORE, PROPRIETOR.

—-lmnavser's-

Watchman's Time Detectors That Cannot Pail.



Contain all the modern improvements. War-ranted in every way. Cannot be tampered with without detection. Manufactured by

E. IMHAUSER & CO., NO Broadway, New York Write for Catalogue. Highest Award Pan-American Exposition

WALKERVILLE

ARE THE BEST.

Special Wagons also Built to Order.

Write to

Walkerville Ont.

Second-Hand Machinery

16x36 Brown Automatic Engine. 4.4 13×30

12X11 McEwen Automatic Engine, High Speed.

12X11 Robb Automatic Engine, High Speed.

1334x30 Slide Valve Engine.

8x12 Slide Valve Engine.

10X15 Centre Crank Engine.

50 h. p. Horizontal Tubular Boiler. 12 h. p. Fire Box Boiler.

8 in. 3-side MacGregor-Gourlay Moulder.

7 in. 3 side Cant Gourlay Moulder. 3x2x3 Duplex Steam Pump and Receiver.

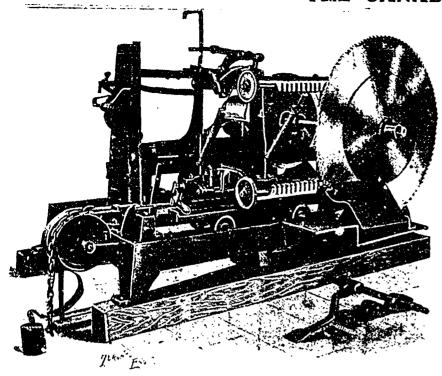
Waymoth Gauge Lathe No. 4, nearly new.

4 h. p. Electric Motor.

1 1/4 Boiler Fred Plunger Pump.

Address-

MONTREAL



GLIPPER SHINGLE MACHINE

Pronounced the favourite by the leading manufacturers of Canada. Capacity 35 to 50 thousand in ten hours.

Two and Three Saw Edgers different sizes and up-to-date.

Direct Acting Steam Feed, all sizes
with D Valve, acknowledged the best.

Trimmers and Slash Tables

Improved design. ill Machinery. Descriptive circulars and catalogue. Prices and terms on application. All other kinds of Mill Machinery.

Double and Single Geared Log Jack Works, with chain complete.
Improved Double Tooth or Boss Dogs with cast steel inserted teeth.
Complete Portable S wmill Outfits
Lockport Swing Shingle Heading Machine

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 FUR FURTHER INFORMATION

DURHAM RUBBER 60.

BOWMANVILLE, ONT.

High Grade Lumbermen's Tools



For Quality our Tools have no Equal on this Continent.

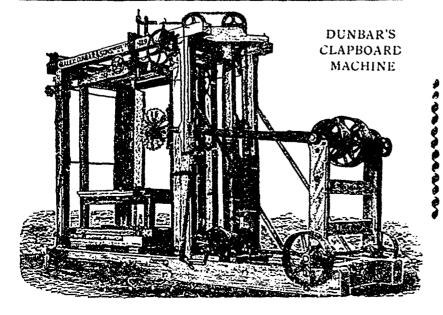
Our NEW PEAVEY is absolutely Perfect in Design and Quality.

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.

GALT, ONT. JAMES WARNOCK & GO.



Woodstock, N. B.

Manufacturers of

Saw Mill Machineru

عي عن عن

OF ALL KINDS

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

WRITE FOR FURTHER PARTICULARS

ALEX. DUNBAR & SONS Woodstock, N. B.

YOU SHOULD KNOW MORE ABOUT THE DODGE WOOD SPLIT PULLEYS :

The most critical manufacturers who have investigated every pulley manufactured pronounce the Dodge the best.

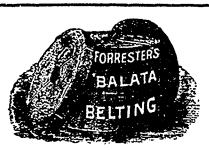
Dodge Wood Split Pulleys transmit from 25 to 60% more power with the same belt tension than any metal pulley on the market.

The Dodge is cheapest in first cost, easiest to install, attaches more easily to the shaft, costs less than iron pulleys, and being 34 lighter than metal pulleys, transmit 50% more power than its metallic competitors of the same size.

We have a very fetching proposition to make in Dodge Wood Split Pulleys about which you should write to-day.

THE DODGE MANUFACTURING COMPANY, OF ITORONTO, LIMITED,

TORONTO.



Flexible Stitched Waterproof

THE*THOS.' FORRESTER CO.,

Kope

.. For all Purposes ..

Alligators, Towing, Boom and Fall Ropes LARGE STOCK CARRIED-CUT TO ANY LENGTH

Special Ropes for Lumbering

Blocks, Clips, Thimbles, etc.

The Dominion Wire Rope Co., Limited MONTREAL, QUE.

Every Lumberman wants it

35 cents buys it

PRACTICAL INFORMATION

Address: THE CANADA LUMBERMAN, Toronto

Smelting Works Syracuse

Babbit Metals Phosphor Tin Solder **Tupe Metals**

and all White Metal

Phosphor Bronze Canadian made

Antimony Pig Tin Pig Lead Aluminum and Ingot Gopper Speiter

Bismuth, etc.,

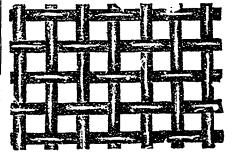
CANADIAN WORKS: William and St. Thomas Sts., Montreal. Fork City
Long Distance Telephone Main 398

HOMAS FORMAN COMPANY, LIMITED DETROIT, MICH.

High Grade Maple and Oak Flooring

polished and finished to perfection.

Please write us for prices, and any other information pertaining to this material.



Special Heavy Steel Cloth for Refuse Burners, Smoke Stack Webs and Wire Cloth of every description.

THE CANADA LUMBERMAN

VOLUME XXIII.

TORONTO, OANADA, MARCH, 1903

TRRMS, \$1 00 PRR YEAR Single Copies, 10 Cents

MR. ROBERT STEWART.

A VETERAN LUMBERMAN STILL IN HARNESS.

Mr. Robert Stewart, lumber merchant, of Guelph, Ont., whose portrait appears on this page, is one of the captains of industry whose individualities are special objects of interest to a large clientele of readers of the Continental press. He stands for all that is straightforward and successful in Canadian skill and enterprise. He is native born, and in this respect he closely resembles the greater number of Canadians who have been successful in law, politics, medicine and commercial life. His early years were spent on the home farm in the Scotch Block, Township of Esquesing, in Halton county, whence, at the age of seventeen, he went to Toronto, where he acquired that knowledge of his business which has since made him the proprietor of one of the largest planing mills and sash and door factories in Western Ontario.

Mr. Stewart has had one ambition, that is to succeed in and develop the business to which he has devoted the best years of his life. He has never sought public office. In politics he quietly supports the party of his choice and goes back to business again. Although having reached nearly four score years he is a splendid conversationalist. He has always been a busy man and probably will be to the end of the chapter. He faces the world with the independency of one who has always paved his own way.

When a man has been steadily running a constantly increasing lumber business for half a century, his reminiscences should be worth listening to. And so it is that when you want to know something about the difference between the lumber and sash factory business in 1846 and 1903 you can spend a pleasant and profitable hour with the subject of this sketch. He will tell you that he has seen lumber bought in Toronto at \$4.50 per thousand feet, which to-day would cost \$30. In those days joists 3x12x24 feet long were brought to Toronto at \$5.00 per thousand feet; to-day the cost would be \$30. Clear lumber in those days sold for \$8.00 per thousand feet, and it was thought quite a run when it went up to \$11. To-day clear lumber runs from \$60 to \$65.00.

Since locating in Guelph, in 1855, Mr. Stewart has seen clear 2 inch lumber brought to the Royal City at \$12.00 per thousand feet, reculled there, and shipped six months afterwards to the Albany market at \$17.00 per thousand feet.

In the days of Mr. Stewart's early experi-

ence a railway was unknown from a practical standpoint, all lumber was teamed in from the surrounding townships, and, as a natural consequence, the contrast between then and now is very marked. In those days, an ordinary mill would cut 1500 feet of lumber in twenty-four hours; to-day the average figure is about fifty thousand to sixty thousand feet.

Wages, too, have advanced considerably. Then, in Toronto, a laborer would do well if he got 75 cents per day, a first-class carpenter would draw \$1.25, and a brick-layer \$1.50 per



MR. ROBELT STEWART, GUELPH, ONT.

diem. Nowada's the laborer gets \$1.50 and up, the carpenter \$2.50 and up and the brick-layer \$3.00 and up per day.

In the olden lays the demand for lumber was limited and he supply unlimited. To-day the demand is unimited and the supply limited. If they had possessed modern machinery in the old days a very short time would have sufficed to prepare all the material required for the building trade.

There were Walnut trees in those days that would be priceless at the present day. The lumber supply was close to hand. Nowadays the manufacturer has to go to Muskoka, Georgian Bay, British Columbia and the Southern States for his Cedar, Fir, Oak, Poplar, Cypress and Yellow Pine. In this connection, Mr. Stewart advocates the reforesting of our deforested timber lands, an increased study of arboriculture and a practical demonstration of such by our farmers. For every tree cut down a new one should be planted.

TRADE OPENINGS.

The Secretary of the Canadian Manufacturers' Association, Toronto, has received the following trade enquiries. The names and addresses may be obtained by applying to the publishers of this journal.

BUILDING MATERIAL — A firm in London, England, desires to procure an agency to sell on commission all kinds of building materials. Good references are sent.

BUTTER DISHES OF THIS WOOD—A firm in Glasgow doing a large business with the Cape desire to procure the above line of goods in Canada.

CHAIR STOCK—A firm of shipping and commission merchants in New York desires to get in touch with Canadian shippers of the above. They have facilities for introducing their goods throughout the whole of Australia and New Zealand.

Overmantels—The agency in the United Kingdom for a Canadian firm of wood overmantel makers is wanted by a person qualified to undertake this business.

Skewers-An enquiry has been received from London, England, for the names of Canadian manufacturers of butchers' skewers.

SOFA FRAMES—A firm of shipping and commission merchants in New York desire to get in touch with Canadian snippers of the above.

TIMBER—A firm in Brisbane, Australia, desires to procure timber of different kinds and dimensions direct from Canadian mills.

Wood Frames for Wire Mattresses—A firm in Hord, Eng., desires to procure wood frames for wire mattresses of various sizes and asks for quotations for same c.i.f. Liverpool, Bristol or Avonmouth.

WOODENWARE — A firm in Glasgow doing a large business with the Cape, desire to procure the above line of goods in Canada.

Dowels, Etc.—A large importing firm in London desire to arrange for shipments of dowels and trunk laths. The details are:

DOWELS—Maple, birch and beech, from 3-16 in. to 136 in. in thickness, and from 14 in. to 4 teet in length. Prices to be made per 1,000 lineal feet in carload lots.

TRUNK BATTENS OR LATHS—In ash and elm. Lengths, 26 in. to 45 in.; thickness, 1¾ in. x 7-32 in., and 2½ in. x ½ .n., with chamfered or rounded edges. Prices to be made on 1,000 lineal feet, in carload lots.

HANDLES—Terned handles of an kinds. Terms—2½°/, 90 days, draft against discounts.

The Dickson Company have commenced the erection of a new saw mill at Burnham's Point, near Peterboro.

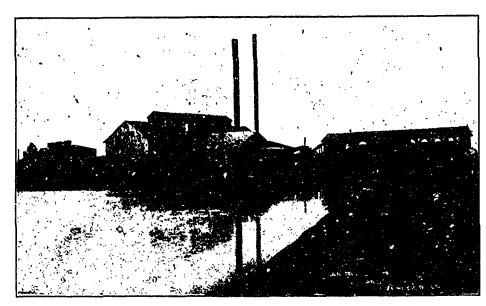
MODERN SAW AND VENEER MILL.

The Algoma Commerical Company, Limited, of Sault Ste. Marie, Ontario, has just completed and put in operation one of the most upto-date saw mills in Canada. It is equipped with two modern band mills and one "Wickes" gang, augmented with the latest automatic machinery for edging, trimming, and conveying

finishing room for sanding and polishing. The mill is equipped with a glueing room for making glued panels. This mill has a capacity of twenty million feet of hardwood logs annually.

There will be employed in these mills and in the woods about fifteen hundred men.

The International Lumber Company, Limited,



SAW AND VENEER MILL OF THE ALGOMA COMMERCIAL COMPANY, SAULT STE. MARIE, ONT.

the sawn lumber to the large sorting platform, where it is graded and piled on the dock for shipment by car or boat.

The edgings and slabs are carried by conveyors over a set of saws that cut them into four foot lengths. From here they are conveyed through the lath mill, where they are sorted and all material suitable is worked into lath. The residue, with all the other waste from the mill, is conveyed to a grinder, where it is ground into small particles and con-

veyed into a series of pockets, from which it is dumped into specially constructed cars and conveyed to the charcoal plant, where it is used as fuel.

The capacity of the mill is fifty million feet annually of cork pine lumber, equal to the well known Michigan pine.

The mill commenced the winter's run about the middle of January. The logs are brought in by rail over the Algoma Central & Hudson Bay Railway and dumped into a mill pond, the water in which is kept bot by means of a system of steam pipes, freeing the logs of all ice, snow and frost.

The company also operates a combined saw and shingle mill at Searchmont, on the Goulais River, 35 miles north of the Soo. This mill has an annual capacity of ten million feet of lumber and fifteen million shingles.

In connection with the saw mill at the Soo, and adjoining it as shown in the illustration, the company has one of the largest veneer mills in the world. It is three stories high and covers an area of 150 feet by 200 feet. This mill is equipped with The Coe Manaturing Company's latest improved veneer machines, wringers, hot roller dryers, and dry kilns. The veneers are taken from the machines to the second floor for cutting into the different sizes, when they are taken to the

are agents for the products of the Algoma Commerical Company.

A COLLINGWOOD WOOD-WORKING FACTORY.

Fourteen years ago Wilson Bros. leased a small factory on Hurontario street, Collingwood, where they manufactured a small quantity of woodwork for local building. The growth of the business since that time has been very rapid, and although several additions were

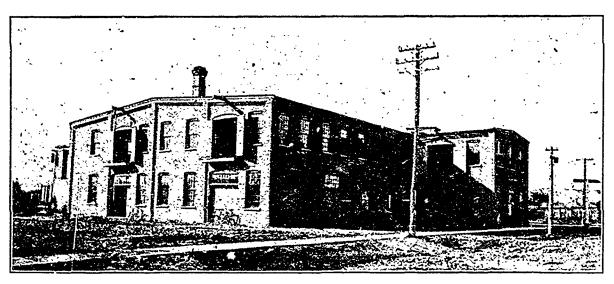
100 feet. Running out from this in front is the office building. At the south of the main building are the engine room, boiler house and shavings vault. The engine room is 14 x 24 feet and the boiler room 16 x 34 feet. East of the boiler room are the dry kilns, of which there are two, 12 x 72 feet each, and a storage room 22 x 72 feet. The first floor is reached by a large power elevator having a platform 6 x 18 feet and a litting capacity of 60,000 pounds.

The first floor of the main building, 80 x 100 feet, is occupied by machinery and work benches and the foreman's office. The space over the main office, 24 x 30 feet, is used as a finishing room and that over the engine room as a glue room.

In designing the factory saving of labor and economy in manufacture were kept in mind. At the front and rear on the ground floor are large doors which slide up, permitting teams to drive through and placing the lumber where it is most convenient fot use. Everything is handled on trucks, which, with the elevator, enables stock to be moved to any part of the factory with dispatch.

The equipment consists of a complete outfit of the latest and most improved machinery for the manufacture of woodwork. For drying the lumber the moist air system has been adopted, the kilns being supplied by the Standard Dry Kiln Company, of Indianapolis, Ind. The shavings and other waste material are carried by a patent shaving exhaust, which is connected with every machine throughout the building, to the shavings room 14x16 feet and thirty feet high, where the refuse is stored for fuel.

Power for driving the machinery is furnished by a modern high pressure boiler and a 100 h. p. Wheelock engine. A dry pipe is used, which ensures the steam passing into the



WOOD-WORKING FACTORY OF WILSON BROS., COLLINGWOOD, ONT.

made to the factory, it was found necessary last year to seek an entirely new location, where buildings to accommodate their extensive trade could be erected. Accordingly, they purchased a large block of land on the corner of First and Walnut streets and erected thereon the building shown in the accompanying illustration. The plans for the building were drawn by Mr. John Wilson, who aimed at "slow burning construction" with a view to minimizing the fire risk. The building is a two storey brick structure. The body of the main building is 80 x

engine in a perfectly dry state. The water passes through a Mossat heater and purisher and into a Northey duplex steam pump, by which it is forced into the boiler.

Messrs. Wilson Bros. manufacture doors, sash, frames and everything in the line of woodwork required in the construction of a building. They manufacture a large number of stairs ready to erect, also hardwood flooring. Their business extends to all parts of the Dominion, they having made shipments to Truro, N. S., in the east and to Vancouver, B. C., in the west. They also ship to the United States.

THE LUMBERMEN'S ASSOCIATION OF ONTARIO.

The annual meeting of the Lumbermen's Association of Ontario took place at McConkey's Restaurant, Toronto, on Tuesday, February 17th. After a splendid luncheon, provided by the Board of Management, had been partaken of, the President, Mr. John Waldie, announced that there would be no toast list, but that the association would be glad, before commencing the business meeting, to hear some remarks from Hon. G. W. Ross, Premier of Ontario.

The Premier was very brief, simply acknowledging the invitation and complimenting the association upon its success. The association had been found very useful in assisting the Government in the adoption of the manufacturing clause, which had proved of great advantage to the province.

The minutes of the previous meeting and the financial and statistical reports were read by the Secretary. The President submitted his annual address, as follows:

PRESIDENTS' ADDRESS.

At this our cannual meeting, we must recognize that for the industry we represent the times are exceedingly kind, and never in the history of Ontatio has lumber reached a higher figure than prevails to-day. Never before have bills for lumber been more promptly met.

All through the past year prices have steadily advanced, and the demand for all kinds of sawmill products has been good, and we enter the present year with a moderate stock of sawn lumber to meet the ever-increasing local and foreign demand, and holders of lumber need fear no drop in prices for the next six months.

Although the prices are very high, in view of the advance in stumpage and labor, the percentage of profit is not excessive. Wages for work in the woods, with board, in the year 1897 averaged \$16.00 per month, and since that time there has been a steady increase, so that wages have just doubled in five years. Thus, the advance in wages has kept pace with the advance in lumber. The same advance has taken place in many of the items of supply, especially in the price of horses. In 1897 the average price per horse was \$65, and in 1902 \$175. It will therefore be seen that the high price and advance on lumber has been proportionately distributed between labor and capital.

The only irritant and drawback to a state of complete satisfaction on the part of the lumbermen is the scarcity of cars for transportation. The transportation conditions of this count have not kept pace with the growth of the country. The railway management have within recent years frequently advanced rates, but in no case have they increased the facilities so that the traffic supplied could be promptly handled. A very largely increased tonnage would give a greater profit to the road, and bear less heavily upon the industries of the country. The Directorate of the Canadian Pacific Railway are to be commended for their recent decision to expend a large amount on the betterment of the road and increase of their equipment, sceing that a 5 per cent, dividend on common stock to the original subscribers is a liberal one. We also congratulate the Grand Trunk management on their decision to improve their line by the use of new capital, rather than increasing their rates and lessening the facilities for the local business on their road.

This Asso siation was organized with a view to bringing legislation into force that logs taken from territory under license, the property of the Crown or People, should be manufactured in this country. The Ontario Government has since added to that the condition that pulpwood and hemlock (both the tree and the bark) when taken from the Crown tands, shall be manufactured or used in Canada. This Association has never desired, nor does it desire in any way, to interfere with the freedom of the owner of timber on deeded lands, and in view of the prosperity that has been attained through the Provincial Act, we desire to express our

regret that any appeal has been made by the paper makers of this country to place an export duty on pulpwood when our Provincial legislation gives all the protection necessary. It only remains for the other Provinces to follow the example of Ontario, and put in force regulations so that the timber wealth of this country, belonging to die Crown, shall be disposed of for the benefit of Canadians.

We are quite willing to emphasize the motto "Canada for the Canadians," and this can be done most efficiently by Provincial control over Provincial property, rather than by interference through the Dominion Government by placing an export duty on the property of the Crown belonging to a Province.

We desire to repeat a statement made some years ago that this Association has made no concerted effort with a view to raising prices, nor is there any encouragement offered to combines or monopolies, but we have contented ourselves with the marke, prices given by the ordinary working of the law of supply and demand.

We desire to again express the conviction of this Association, that the time has arrived when both the Dominion and Provincial Governments should stop granting subsidies to promoters for the purpose of building ratroads to open the country. Where roads are requisite let the Governments of the Dominion and Provinces join hands in the building and owning at the road, and let the transportation companie: operate on terms so as to give a fair return for the work performed. This might be acomplished by the Dominion constructing a trunk line from ocean to ocean, and he Provinces building the branch lines.

In view of the advantages already derived by joint action, and for the purpose of objecting to any legislation projudicial to the interests we represent, this Association has fully justified its formation, and its continued activity along the same lines we trust will make for the development of the country.

The reports above mentioned and the President's address were unanimously adopted.

The President, referring to the requisition of the pulp and paper manufacturers for an export duty on pulpwood, said that the moment it was applied the lumber interests of the United States would clamour for an increased duty on lumber, as provided for by the Dingby bill. The question of controlling the timber lands should be left entirely in the hands of the provincial governments. It was unfair that conditions applying only to Quebec and New Brunswick should be permitted to affect the whole Dominion. Ontario and British Columbia had met the situation by enforcing a home manufacturing clause, and the other provinces should have sufficient courage to do likewise. There was a probability of another session of the Joint High Commission in the near future, and he thought it should be distinctly understood that the lumbermen of Ontario are not willing to waive the manufacturing clause under any consideration.

Mr. John Bertram made some forcible remarks against any interference with the prevailing timber regulations. As many Americans had, as a result of the saw-log legislation, established mills in Ontario, it was doubly, he thought, the duty of Canadians and the Governments of the country to protect their investments. Under no consideration would the association agree to an export duty on pulpwood or logs of any kind.

Messrs. Robert Watt, W.D. Lummis, H. S. Brennan, Robert Laidlaw, John Conlon and others announced their sympathy with the sentiments expressed in the President's address, whereupon Mr. Bertram moved the following resolution, which was seconded by Mr. James Playfair and carried unanimously:

"That the address of the President of the Ontario Lumbermen's Association be adopted, and that a memorial be presented to the Dominion Government that in view of the serious international questions which may arise by the Government of Ottawa acceding to the request recently made to them by some of the pulp men of Canada that an export duty should be placed on pulpwood, it is the opinion of this Association that no export duty should be placed on any product of the forest, but that the timber, being the property of the Provinces, the policy of dealing with it should be left in their hands."

It was also resolved that the meeting heartily endorse the resolution passed at the last annual meeting of the Canadian Forestry Association, as follows:

"In view of the enormous loss of timber by fire, this Association, embracing a membership from all parts of the Dominion, having at this its annual meeting had under consideration the great mistake that has been made in the past by opening up for settlement land unsuitable for agricultural purposes but adapted for the growth and production of timber, would respectfully urge on the Governments of the Country both Federal and Provincial the necessity of greater attention in future to this important subject. The Association would further urge in order that this may be intelligently done that the newer and unsettled portions of the country should be explored in advance of settlement."

Referring to the above resolution, Mr. Bertram urged that every lumberman should endeavor to adopt such methods of cutting and preservation as would perpetuate his timber supply. The state of Michigan, he said, had appointed a special commission to endeavor to buy back about 4,000,000 acres of deforested land with a view to the cultivation of trees thereon.

ELECTION OF OFFICERS.

The election of a board of management for the ensuing year resulted as follows: President, W. D. Lummis, Toronto; first Vice-President, R. Laidlaw, Toronto; second Vice-President, George Thomson, Goderich; Secretary-Treasurer, W. B. Tindall, Toronto. Board of Management—J. B. Miller, W. B. McLean, W. P. Bull. Toronto; R. H. Roys, Sandwich; J. S. Playtair, D. L. White, Midland; C. Beck, Penetang; W. J. Ard, South River; W. J. Sheppard, Waubaushene.

Officials of the Quebec Government who have completed a survey of the vast territory, state that there are fully 65,000,000 acres of good spruce and pine lands lying between Lake St. John and the James Bay. This is all in the hands of the government, but will be placed at auction in parcels of 10, 15 and 25 miles upon request. Heretofore the territory lying on the Ontario side of the boundary has received most attention, and it is well bought up. The tide of investment is turning towards Quebec, however, and in the past few years limits have greatly increased in value. The territory is, according to the government reports, well watered and marked by several good water powers. Thus everything facilitates the promotion of the pulp industry.

THE

Ganada Lumberman

MONTHLY AND WEBKLY EDITIONS

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 Workly Edition is published every Wed. nesday, 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, Veckly and Monthly, Six Months, in advance .. .50 Poreign Subscription, \$2.00 a Year.

ADVERTISING RATES ON APPLICATION.

THE CANADA LUMBERMAN is published in the interests of the lumber, wood-working and allied industries, being the only representative in Canada of these important interests. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers. Especial pains are taken to secure for publication in the Werkely Lumbership the heart and most trustworthy market quotations throughout the world, so as to afford to the transfer home and abroad information on which it can rely in its operations. Subscribers will find the small amount the pay for the Canada Lumberman quite insignificant as cor pared with its value to there. There is not an individual in the trace, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aking and encouraging us to render it even more complete.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bing their goods to the attention of owners and operators of saw and planing mills, wood-working factories paip mills, etc. the Canada Lumberman's undeabedly the cheapest and most profitable advertising medium. Special attention is directed to "Wantsha" and "For Salle" actories centre sents, which are inserted in a conspicuous position on front page of the

are inserted in a conspicuous position on front page Weekly Edition.

LUMBERING AND SETTLEMENT.

For a great many years the difficulties arising from the conflicting incerests of lumbermen and settlers have been recognized by the Government. As early as 1860 the Ontario Government passed an act defining the rights of the license-holder and the settler, and at intervals since that time new acts or amendments have been passed. It cannot be charged, therefore, that there has not been a proper recognition on the part of the Government of the necessity of protecting as far as possible the interests of both parties.

In the early days, when timber was regarded as of little value, the problem of controlling in a peaceable manner the operations of both the lumberman and the settler was not a difficult one. As the country became more largely developed, and timber comparatively valuable, the situation assumed a more complex aspect, and to-day the exact lines upon which agricultural settlement and lumbering shall be carried on, so as to prevent a conflict of inrerests, is one of the most important subjects with which the Government has to deal.

Canada is in need of population. Restrictions, therefore, which would retard the settlement of the country, or at least that pertion of it which is suited to agriculture, should be discouraged. On the other hand, the granting of permission to settle s to take up land in the timbered districts which is not adapted to agriculture is neither in the interest of the settler or the country.

The memorial of the Ontario Lumbermen's Association, urging that the Government give more attention to restricting settlement ex-

clusively to suitable agricultural lands, and that new territory be explored in advance of settlement, carries with it the unanimous support of the lumbermen of Canada, and no doubt of all having the interests of the country at heart. At the same time, the difficulties with which the Government have to contend must not be underestimated. Unfortunately, under the system of free grants by which lands are alloted to settlers, it frequently happens that the "so-called" settler selects his location on account of the quantity of timber upon it rather than because of its suitability for agricultural purposes. No dues are paid on the timber cut for clearing purposes, which he knows can be marketed at profitable prices. It is not uncommon to find that after the timber has been taken off, the land is abandoned. Thus the lumberman, if it be licensed land, loses his timber and the Government the timber dues. This policy of confiscation is often carried still further by the settier seeking another location for a similar purpose, perhaps securing it in the name of a friend. Another result of the presence of the "bogus" settler is his indifference regarding the proper protection of the forest from fire.

In the opening up of New Ontario the Government should, and no doubt will, give careful consideration to the preservation of the timber, which is the most valuable asset in the possession af the Crown to-day. New Ontario now being covered by a coniferous forest, the necessity of protective measures is more apparent than when it was a mixed growth. The Government, therefore, should not allow settlers to set out fires except by permission of a Government officer. This, we think, is one way in which the existing regulations could be made more efficient.

DEMAND FOR WOODEN BLOCKS.

Mr. R. E. Gosnell, of the British Columbia Bureau of Information and Immigration, has, at considerable labor, compiled and issued a booklet for the purpose of showing the demand which exists in Great Britain and elsewhere for wooden blocks for pavements. The data which he presents is of great value, showing as it does that the field is capable of greater development.

Mr. Gosnell, doubtless an impartial authority, reaches the conclusion that the result of experiment and extended experience in Great Britain is in favor of wooden blocks as the most permanent and generally the most satisfactory paving material. He thinks that the failure of wooden blocks in many places was due to the local conditions, and in other instances to imperfect construction.

As nearly as can be estimated, there were used last year in tifty-five cities in Great Britain and Ireland wooden blocks to the value of \$1,500,000. Many of the city engineers had never tested Canadian blocks, but expressed to Mr. Gosnell, indirectly, their desire to see samples of British Columbia timber which might be suitable for the purpose.

The blocks were obtained very largely from the Baltic and Australia, and while varying in size in different localities, the average dimensions were 9 inches long, 3 inches wide, and 4

or 5 inches deep. The price paid was about \$50 per thousand blocks delivered.

1 ts that have been made in Great Britain of Canidian spruce and red pine for paving purposes have given good satisfaction. That our timber has not been more largely used in this way seems to be due to a prejudice against it which exists in some quarters, and for which no reasonable explanation is offered. It is probably due to a lack of familiarity with the Canadian product, and if Mr. Gosnell should, by means of his recent investigations, be the means of broadening the market for Canadian paving wood, he will deserve the thanks of the timber trade.

KEEPING IN TOUCH

While lumber is not subject to violent fluctuations in price, as is the case with grain, cotton and other staple products, it is marketed so we ely that it is necessary for the successful manufacturer or dealer to have facilities for keeping in touch with the changing conditions. The merchant who relies upon the knowledge obtained from his immediate surroundings is not likely to be very accurate in his estimate of future values. The shrewd buyer or seller will carefully consider the conditions not only in the home market in which he may be trading, but also those in outside countries which may have even an indirect bearing upon prices.

Some lumbermen are well informed at all times as to market conditions; others do not give this phase of the business sufficient attention and are losing money thereby. One circumstance which tends to lessen the interest of a lumberman in the market value of lumber is the policy, now so common, of placing the entire cut under contract at the beginning of the season. As soon as the contract is closed the manufacturer loses his grip upon the market. For the balance of the season his attention is devoted to the manufacturing end of the business and to making preparations for work in the woods. Doubtless there is an advantage in being able to give his undivided attention to these branches, but it is the experience of those who have been so situated in the past that when the time arrives for entering into negotiations for the disposal of another season's cut, it is more difficult to get an intelligent grasp of the situation. Never was this better illustrated, nor the advantage of being closely in touch with the market more keenly realized, than at the present time, when Ontario log run pine is selling at record prices.

The manufacturer should not only endeavor to increase his store of knowledge by every available means, but he should also impart information at every opportunity when by so doing his personal interests are not likely to be affected. The trade journal, for instance, looks to the manufacturer for information, and if this is not forthcoming it is impossible to place before the trade the statistics and other data which the paper should contain. Occasionally the Canada Lumberman has been unable to secure all the information contemplated, but as a rule the trade has responded liberally to our requests.

DEATH OF MR. WILLIAM LOCHEAD.

THE CANADA LUMBERMAN learned with deep regret of the death of Mr. William Lochead, which occurred at the Hotel Dieu, Windsor, Ont., on February 12th, as the result of bloodpoisoning caused by removing a blackhead from his temple with his finger nails. Mr. Lochead was well known to many members of the lumber trade, who will mourn the loss of one held in high esteem and much respected.

Deceased had been in the employ of Mr.A.A. Scott, of McGregor, Ont., as book-keeper and secretary, for a number of years, which position he held up to the time he was taken ill. He enjoyed the confidence of both his employer and the employees. Prior to engaging with Mr. Scott he was associated in business with his father in Almonte, Ont., where he was born. Thei business extended to Ottawa and Toronto, where deceased was well and favorably known. His mother, who resides at Osgoode Station, Ont., was with him during his illness. His remains were taken to Almonte, where they were laid at rest in the family burial plot on Saturday, the 14th of February.

THE LATE E. R. BURNS.

The death occurred at St. Michael's Hospital on February 9th of Mr. Eugene R. Burns, senior member and manager of the E.R. Burns Saw Company, Toronto. Mr. Burns was taken to the hospital suffering from a growth in the mouth. Two operations were performed, on the 3rd and the 9th ultimo. The gland was removed, and then the enlargement. The second ordeal took place in the morning, followed by death at night.

The deceased came to Toronto 15 years ago. Prior to that time he was for some years connected with Shurly & Dietrich's saw factory at Galt. A wife and five children survive.

LOW RATE INSURANCE FACILITIES.

It may be said that eight or nine years ago there was practically no insurance company confining itself te the underwriting of lumber and woodworking risks. There was no general organization of lumber dealers at that time which could analyze the situation and undertake the establishment of a company devoted to the interest of lumber dealers. However, one of the first activities of the National Wholesale Lumber Dealers Association of the United States, on its organization, was to agnate the subject of insurance. It was found that there was a prevalent belief among the members of the association that the rates then prevailing were too high. Statistics were gathered among the members of the association showing the amount of money paid out for insurance premiums, and amounts of losses collected, and it was found that over a period of several years the ratio of losses to premiums paid was less than 17 per cent. These definite facts based on actual experience strengthened the feeling that companies should be organized for the double purpose of giving an immediate advantage to the lumber trade by a reduction of rates, and to serve as a protest against the exorbitant rates fixed by the old line insurance companies then in the ticld.

The first companies organized to do business along these lines were the Pennsylvania Lumbermen's Mutual of Philadelphia, the Lumbermen's Mutual Insurance Company of Mansfilld, Ohio, and the Lumber Mutual Insurance Company of Boston. These three companies have pursued successful careers for eight years, each one having built up a surplus and all having paid dividends to their policy-holders ranging from 10 to 25 per cent, annually.

The insurance organizations directly the outgrowth of the efforts of the National Wholesale Lumber Deal-

ers' Association, as stated above, are the Protective Trust Fund and the Lumber Underwriters. The Protective Trust Fund is now in its fourth year. Having been established as an experiment in underwriting wholesale lumber risks only, its field of activity is confined to the members of the National Wholesale Lumber Dealers' Association, and it is not open to accept insurance from the general lumber public.

The company which has probably attracted the most attention is the Lumber Underwriters, of 66 Broadway, New York. This concern has had a history of ten or twelve years standing, but has limited itself absolutely to lumber risks for a period of two years only.

The Lumber Underwriters has operated along somewhat novel lines, in that there is no representation by local agents in any part of the country, all business being done direct with the policy-holder. Applications are received at the home office, and when it is necess sary that an inspection be made, a representative of the company is sent to look over the property to be insured. The Lumber Underwriters has found it possible to insure lumber risks at somewhat lower rates than the so-callad tariff rates. During the past year they have accepted insurance on lumber risks at an average discount of 15 per cent, off the tariff rate, and during the present year on account of the 25 per cent. increase in rates made by Tariff Association Companies, they are accepting insurance at the old rates which were in force last year, so that the advantages by way of a reduction in rates are obvious.

It is a favorable sign that lumber dealers throughout the country have so extensively undertaken the underwriting of their own property. The fact that they are now maintaining six or more responsible organizations is ample proof that there is a real demand for companies which shall devote themselves to the interest of the lumber trade. The question naturally arises as to what is to be gained by the policy-holder in insuring with these organizations.

Up to two or three years ago the companies then operating labored under difficulties. The wholesalers carrying insurance to the amount of hundreds of thousands of dollars on single risks protested that the companies in the field could not offer a sufficient line to interest them. From the retailers these companies heard the argument that even though the cost of outside insurance was less than that which they would be compelled to pay through local agents, they would prefer to patronize the local agent as a matter of expediency.

In a measure both of these objections have now been overcome. To the wholesaler requiring a large line of insurance, these companies offer a maximum line of possibly \$35,000 or \$40,000 on a single risk. Now that all of the old line insurance companies have advanced rates on limber and woodworking risks 25 per cent., the retailer is disposed to accept the inducement of a lower rate offered by the lumber insurance companies, feeling that it is better to sacrifice the slight amount of business which might be secured from the local agent rather than to fail to protest against an increase of rates which he believes to be unjustified.

As a consequence at this time large numbers of lumber dealers are turning to their own trade companies for insurance, and the companies are experiencing a decidedly marked increase in their business.

There is one word to be added in regard to this matter of insurance. The justice of the recent advance in rates on lumber risks is seriously questioned by lumber dealers in all parts of the country. It has been amply proven by the experience of the lumber insurance companies that this class of business is profitable and it is believed that this class has paid a profit to the old line insurance companies openly acknowledge the fact that the business is profitable and are willing to accept the old rates without demanding an increase lumber dealers are to-day finding that in the trade insurance companies they have fascities open to them which they perhaps have not sufficiently appreciated in the past.

FULL OF TRADE NEWS.

M. Clingen, Martintown, Ont., writes of the CANADA LUMBERMAN: "I find the journal interesting and full of trade news.

MANUFACTURERS' ACCOUNT

A book bearing the above title has been compiled and published by Mr. W.C. Eddis, F.C.A., President of the Institute of Chartered Accourants of Ontario, and Mr. W. B. Trindall, A. C. A., of Toronto. The work is intended to be a text book for manufacturers and accountan's, showing how to keep manufacturing accounts, both as regards to cost and records of manufacturing, and also as regards the keeping of the commercial accounts where these accounts refer to the cost and profits of such manufactured goods. The attention and care which has evidently been given to the compilation of this book makes it of great value to manufacturers. Besides submitting approved and useful forms for recording the cost of manufacturing, specimen accounts of varied manufactories have been worked out and dlustrated.

Of special interest to readers of this journal is Chapter IX, devoted to lumber manufacturers' accounts, The systems outlined in the book are, for example, adapted to the case of a manufacturer who is presumed to be the owner of timber limits from the Ontario Government, also timber on land purchased in fee and the owner of certain of the permanent improvements on the streams made for the purpose of driving or floating logs to the mill, which is built for the manufacture of lumber, shingles and lath. The various forms shown in this chapter include the following: Account in General Ledger; Provision Account; Suble Account; General Expense Account, Van Account; Wages; Head Office -Account in Camp Ledger: Operating Account: Form of Time Sheet Used at Camp; Wages Book; Report of Lumber, Lath and Slangles Sawn; Specimen of Lumber Sales Book: Sningle Mill Account; Log Trading Account; Lumber Trading Account; Trading Shingle Account; Lath Trading Account, etc.

The book may be obtained from the authors, 23 Toronto street, Toronto, or from the publishers of the CANADA LUMBERMAN. The price is \$3.00.

THE OVERHAULING SEASON.

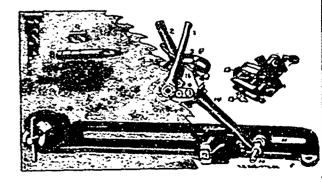
At this time of the year every progressive owner of a saw mill or wood-working factory examines carefully his machinery equipment and puts it in condition to operate to the best advantage during the coming season. Machinery found to be out of repair is put in good order, worn-out machines or machines that are found to be uneconomical are discarded in favor of up-to-date appliances. If deemed advisable extensions are decided upon, and the necessary new equipment purchased and installed.

The advertisement pages of the CANADA Lt MRERMAN contain the announcements of the leading Canadian and American manufacturers of machinery tools and supplies of every kind required by lumbermen and woodworkers.

It will pay our readers to consult our advertisement pages for anything they may require and to write our advertisers for prices and catalogues, etc., mentioning THE LUMBERGUES. It something is required which is not advertised, advise us and we will supply the name and address of the manufacturer.

THE HANCHETT SAW SWAGE

A good saw swage is a very essential part of the equipment of an up-to-date saw in it. The Hanchett



Swage Works, of Big Ripids, Mich., whose advertisement appears in this paper, have had a long experience in making all kinds of saw swages and, their products are No. 1 in quality and are in use in some of the largest mills in the United States.

TREATMENT OF SECOND-GROWTH WHITE

By WALLACE I HUTCHISSON, Wolfville, N.S. (Continued from February issue.)

To be ranked as first class timber a tree must be tall, straight, free from branches, and tapering as little a possible. If heavy thinning is done during the early years of the growth straight, clean poles are not as a rule produced—that is, not in the same degree as when the woods are kept dense and the lower branches die off gradually from lack of light. Nor can we make up for this by pruning, though it may be beneficial to some degree. Heavy thinning gives an increase of light and consequently produces a more rapid diameter growth and coarse-grained timber.

In the case of the white pine thinning should be carried on lightly until the end of the principal height growth, which occurs when the trees are about forty years old. Then the hinning should gradually become heavier, in What hardwood species are allowed to remain depends largely upon the commercial value of the different kinds of wood. Perhaps the trees to be favored next to the White Pine, in a mixed forest, are the White Oak and Chestnut, both of which are healthy and vigorous trees of high commercial value.

In a woodlot of considerable size the whole area need not be thinned in one winter, as this would cause the owner needless expense. Let him cut out gradually the timber he may need for firewood and fence posts, and within a few years his whole stand will be cleared. In some cases it may be necessary to lay out a small sum per acre for this work, but the added rapidity of growth and the consequent increased value of the trees will in the end more than compensate for the money expended. Extreme care should be taken that the remaining trees and undergrowth are not injured by the removal of the timber and brushwood.

Thinning, if carefully carried on, is of great



YOUNG WHITE PINE GROWING UNDER WHITE OAK AND PITCH PINE.

order to assist the selected trees by the removal of all inferior and diseased ones. The thinning should be done more among the dominating and dominated trees than among those which have fallen far behind in the race, although the latter may be allowed to remain to assist in the protection of the soil or as wind-break.

If the woodlot in question does not consist of a pure stand of white pine, but is intermixed with hardwoods, the plan of thinning must be slightly changed.

The most important tree, which in this case is the white pine, must be favored in every way possible. Inferior hardwoods may be allowed to remain for a certain length of time to act as nurses for the young pines, but after their periods of usefulness for this purpose is past they should be removed. This removal should not be done too rapidly, as in many cases shade is beneficial and the pines will not stand a too rapid opening of the forest cover. After the nferior trees have been removed and the pines have firmly established themselves thinning may be commenced.

value in the production of high-grade timber. It affords a means of directing the growth of the wood, either towards the production of the greatest quantity or the best possible quality. Further, it preserves a suitable proportion of species in dealing with mixed woods. The danger from insects and fire is lessened by the prompt removal of dead and diseased trees, and thinning strengthens the selected trees against the injurious effects of wind and snow.

When it is the farmer's object to produce the best quality of timber—that is, long, clear boles—it is necessary that the trees should lose their side branches to a certain height from the ground. The lower branches of trees growing in crowded woods die naturally owing to the lack of light. This is a very marked characteristic of the white pine, as its branches often die to the height of 30 feet, which is also true of all light-demanding species of coniters. Sometimes the dead limbs drop quickly to the ground; in others they remain for years, eventually producing knots. If the lower branches do not drop off naturally, they are



Example of Bad Pruning; Stumps of Branches Left.

usually removed by artificial means, and to this process is applied the term pruning.

The pruning of live branches is done to increase the value of the timber, stimulate the expansion of the crown of the tree, and also to free the young growth from the too dense shade of the overhanging trees.

Pruning to free the undergrowth from a too dense cover is usually done in woods consisting of timber of different ages. In many cases



GOOD PRUNING; BRANCHES CUT OFF_EVEN WITH THE POLE.

one may find a stand where a valuable slow-growing species is liable to be shaded out by a poor, faster growing one. In this case it is preferable to prune the undergrowth rather than remove it altogether. We often notice trees which have been subject to unfavorable conditions showing signs of failing strength in their crowns. To remedy this, usually a good part of the lower limbs should be removed. This allows the tree to use all its nourishment to strengthen the crown, and in many cases this extra stimulus enables it to pass the danger point.

It is very seldom a tree is injured by the removal of dead branches. On the other hand, it may greatly reduce the danger from rot, as the tree soon covers over the opening with new layers of wood.

But a different state of affairs is met with in the pruning of green branches. Here the wound caused by the removal of the limb often



A TREE THAT HAS BEEN ATTACKED BY THE PINE WEEVIL.

becomes the point where fungi enter. The white pine has, however, peculiar methods for overcoming this evil effect. Shortly after the limb is removed the wound is covered by a gummy sap, which protects the cut from disease until it is able to heal over, so that in a few years after careful trimming we have practically a clean bole. Pruning, however, in a crowded stand, where the limbs die naturally to a considerable height, should be confined to the dead branches exclusively.

For a farmer the easiest implement to prune with is a good sharp axe; if wielded with accuracy, it is as good as a saw, as it leaves a smooth surface wound. Besides, pruning with an axe can be done more rapidly. It must, however, be carefully handled, as reckless cutting is apt to do considerable damage to the bark. It is a waste both of time and of energy to prune a tree above a height of eight feet, which is about as high as an average man can reach with an axe and cut carefully. The branches should not be pruned in such a manner that short stumps are left sticking out from the stem, but should be cut even with the

trunk. The best time for pruning is undoubtedly in the fall or early winter.

As so many of our eastern white pine woods are seriously affected by the pine weevil, attention should be called to it. The presence of the insect is first manifested by the wilting of the terminal shoot, which, if examined carefully, will be found completely mined by the insect larvæ. A tree thus damaged will fail for several seasons to send forth a terminal shoot, with the result that the lateral branches strive with one another to gain supremacy. It is at this point that the owner of the wood lot can materially aid nature in her efforts to again produce a normal tree. A limb should be selected to take the place of the leader, and in making a choice its thriftiness and relation to the tree should be considered. After a choice has been made all the other branches of the whorl should be removed, thus giving the newly-chosen leader every opportunity to develop. If the work has been judiciously done, the tree may again assume its normal shape in after years.

MICHIGAN'S LUMBER INDUSTRY.

BY OUR TRAVELLING REPRESENTATIVE.

The first day of February saw me "on the road" again, bound for Michigan, Wisconsin, Illinois, Missouri, Indiana, Pennsylvania and Ohio. Leaving Toronto I made stops at Hamilton, London, Chatham, and Windsor long enough to see that the lumber trade was flourishing at these points. A great many of the small dealers were anxious as to whether they would be able to get a supply this coming season—many preferring to wait until the mills were running before giving their orders.

Coming over to Detroit I visited many of the leading

----<u>-----</u>

two genuine snake rail fences, and nides upon indes of stump fences.

Statistics show that the lower peninsula of Michigan is now practically denuded of all its pine. Hemlock and hardwood is going the same way. Last year 1,846,104,979 feet of all kinds were cut in the state.

Mr. h. D. Cowles, of the Courier-Her ital staft, Sagmaw, is acknowledged to be the best authority on immber statistics, having made it a special study for over 30 years. To him I am indebted for much information regarding Michigan's declining industry. His statistics show an instructive object lesson of the diminishing forest preserves of the state.

The last year has been a prosperous one for the lumbermen. While theout put in the state felt off, the manufacture of hardwood and hemlock assumed large proportions. In speaking to Mr. Cowles he said: "Twenty years ago a Michigan lumberman would not have recog uzed a hemlock log if met face to face on a skidway, there being no market for that timber, but conditions have changed and the output of hemlock the last two years has about equalled that of pine.

I asked Mr. Cowies as to the pare product, and he stated: "It is pretty nearly exhausted in the lower peninsula, but there is a large body of fine hemlock and hardwood timber available.

The prices for lumber in this state during 1902 and up to the present ruled firm, with an active demand caring the entire year. The output of the state for 1902 was 717,183,071 feet of pine, 699,011,487 feet hemlock and 438,809,821 feet of hardwood. The shingle output was 1,545,231,000.

The production of lath for 1902 amounted to 303,-311,000 pieces. The quantity of lumber in the hands of manufacturers and dealers at the close of the season was 197,877,000 feet. At the close of the year there was a comparatively small quantity of unsold lumber in the hands of manufacturers. Many of the dealers' yards that I saw were also denuded.

The high water mark for the production of fumber in Michigan was in 1881, the output that year exceeding four billion two hundred and ninety million feet. More

LUMBER	PRODUCT	OF MICHIGAN	IN 1902.		
	Pine cut. feet.	Hemlock cut, feet.	Hardwood cut, feet.	Total district cut, feet	Shingles No.
Saginaw district	34.986.671	37,302,487	33,970,821	106,265.979	2,610,000
Lake Huron shore district	2,500,000	80,500,000	22,100,000	115,100,000	54,000,000
Cheboygan district	13,400,000	24,000,000	1.500.000	3 ⁴ .9 10,000	44,716,000
Manistee district	62,250,000	95,615,000	42,500,000	200, 305,000	171,953,000
Ludington district	4,700,000	30,500,000	22,000,000	57,200,000	32,000,000
Muskegon district	47,810,000	17,500,000	3,175,000	69.485,000	31,386,000
Mackinaw division M. C. R. R	73.387,000	80,450,000	32,400,000	186,237,000	55,500,000
Pere Marquette R. R. mills	5,500,000	53,250,000	52,500,000	101,250,000	219,300,000
G. R. and I. R. R. mills	27,500,000	35,100,000	72,000,000	134,500,000	79,000,000
Green Bay, Mich., mills	92,150,000	97,149,000	24,978,000	214.277.000	413,349,000
Lake Superior district 3	33,500,000	68,675,000	71,250,000	503.525,000	289,617,00c
Misellaneous mills	9.500,000	48,970,000	60,430,000	118,900,000	157,500,000
Total state product	717,183,671	699,011,487	438,809,821	1,846,194,979	1,545,231,000

lumbermen of that city, all of whom greeted me cordially, and I was glad to make the acquaintance of Mr. Jas. Harmon, G-o. Morley & Company, Dwight Lumber Company and others, all of whom appear to be thriving.

Up at Port Huron I found the Pere Marquette Rymaking arrangements for their intercolonial trade. They will now run direct into Canada over their own line. They have ordered 5,000 new freight cars and 65 new locomotives, many of which will be delivered this month. Three additional car ferries with a capacity of 32 cars each have been ordered—two of them to run between Port Huron and Sarnia. Local dealers say this will facilitate the railway haul of lumber from Canada.

I reached Detroit a couple of days too late to attend the annual meeting of the Michigan retail lumberman, which I was very sorry to miss.

From Port Huron to Sagmaw I passed through what was once an immense pine forest—now only blackened stumps indicated where once the giant pines stood.

Between Tappan station and Abbotsford there is considerable second-growth and scrib trees of various sorts—none of any great utility. Everything marketable appears to have been cut down. I passed one or than words these figures show the steady decline since that year:

at	vear:		
	1888.	4 202,180,014	fect.
	185q	4.207.741,224	••
	(Sq.).	4.685,767,549	••
	18q1.	3 580, 531, 668	••
	18q2.	3 794 - 250 - 754	••
	1803	3.147 995,147	••
	1802	2.730.657.861	••
	1895.	2.731,029,535	••
	1806.	2,166,252,952	••
	1897	2,335,674,349	••
	1898.	2,158 343,122	••
	1899.		••
	1900.	2,3(9,931,918	••
	19.11.	1,995,347,000	••
	1002.	1.846.104.070	••

There has been a corresponding increase in the lumber shipped from Canada to this state. One lundied and fifty million feet of Canada pine came to the Saginaw river alone in 1902.

The largest firm in Saginaw, Mershon, Schnette. Parker and Company, handled 98 million feet of pine lumber last year. They have 34 million feet of white pine left in steck, and have Sought 50 million feet in Canada to be delivered this season.

The Sagmaw Lumber & Salt Company, Booth & Boyd, Briggs & Cooper, etc., all do a very large

business. There are, however, no new mills going up and very few that are putting in new machinery. Among the Michigan firms who are now supplying Canadian lumbermen and their mills are the following: W. B. Mershon & Company, Morley Bros., Wickes Bros., Mitts & Merrill, A. F. Bartlett & Company, of Saginaw; J. Garland & Son, of Bay City; the Rogers Iron Mfg. Company, of Muskegon, and the Harchett Swage Works, of Big Rapids.

I had very pleasant interviews with Messis, Parker, Juo. S. Porter, R. Loveland, Arther Hill, Stone, J. D. Draper, Thos. Jackson, Henry F. Lee, Briggs & Cooper, Charles F. Nelson, Kerry & Schultz, and some other well-known Saginaw lumbermen I am indebted to for favors received.

I was very glad to hear that Mr. John S. Porter, President of the Porter Cedar Company, had been appointed State Salt Commissioner.

Mr. Thos. Jackson, I found at West Saginaw, was aclined to think Canada had been very slow in awakening, and "even at the present time," he said, "your mills and shops are filled with old men and boys—the strong young blood of your country having gone to the States. I reminded him of the fact that 35,000 American citizens had settled over the border during the past year, but he thought something was wrong when our own young men did not find inducements to stay in Canada.

Mr. H. J. Gilbert, vice-president and manager of the Saginaw Mfg. Company, came over to Canada last year after spruce. He got what he wanted, but owing to an accident to his vessel and consequent delay the article was not got across in time before the close of navigation.

A dealer in Saginaw said that the lumber market

sale in Canada, where they intend to market it. Both this company and the Wolverine Company promise to come in our advertising columns.

E. B. Foss & Company and Bradley Miller Company each handle about 40 million feet of lumber annually.

Mr. Selwyn Eddy, with whom I had a short conversation, had just arrived from Canada, where he had been regarding his lumber interests there. He was preparing for a trip to California.

A large number of Saginaw and Bay City people are interested in Canada now more than ever owing to the extensive operations of Michigan lumbermen in Canada.

Holland & Graves operate a large plant at Byng Inlet. They have employed about 900 men during the winter and will get in fifty million feet of logs to be manufactured this season. This plant was moved from Tawas, Mich., a few years ago to Byng Inlet. Mr. Holland, of this firm, is one of the pioneer lumbermen of Michigan, and operated a saw mill many years at Saginaw. He now resides at Buffalo.

The St. Anthony Lumber Company, at the head of which is Arthur Hill, of Saginaw, operates a big plant at Whitney, Ont., on the C. A. R., 180 miles from Ottawa. The company built last year, a logging road about 15 miles long and are putting in a stock of fifty million feet for the cut of the mill this spring.

The Saginaw Lumber & Salt Company built a large saw mill and salt works at Sandwich, Ont., in 1900, and operated it last year, cutting 20,000,000 feet of lumber. Their timber is in Georgian Bay district and they raft the logs to Sandwich. They are getting in a stock of 25,000,000 feet of logs to stock the mill with this year.

Edmund Hall, of Detroit, who has a s saw mill at Bay

The firm has just bought 4,000,000 fret of cut logs and 25,000,000 feet of standing timber, being the township of Dowling. This company and the Saginaw Lumber and Salt Company together employ over 1300 men and 100 horses.

Eddy Bros. & Co., at Blind River, Ont., have a large saw null there which was moved from Bay City, Mich. They cut 25,000,000 feet and will have all the logs they can manufacture this season. They own a large block of timber in Canada.

The Michigan Land & Lumber Company, of Bay City, operate a large saw mill at Blind River and will manufacture 25,000,000 feet of lumber in 1903. The company is getting in a full stock of logs.

The Turner Lumber Company, at the head of which is Joe Turner, of Bay City, Mich., is putting in 30,000,000 feet of logs to be manufactured at Midland, Ont.

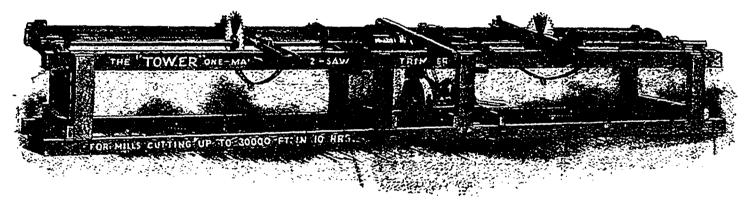
The Huron Lumber Company at Spanish River, Ont., is being stocked by the Spanish River Lumber Company, and will cut 15,000,000 and perhaps more this year. The mill is owned by Mr. McCormick, of Bay City.

The foregoing are the principal lumber firms of Michigan operating now in Canada.

Mr. Cowles states that fully 300,000,000 feet of lumber, which is to be manufactured in the Georgian Bay district the present year, has been sold already, or nearly one-half the entire output of the mills in that district, and at an advance of \$2 a thousand teet compared with prices which the same grade of stock sold at last year.

AN EXTREMELY SIMPLE TRIMMER.

The acme of simplicity in trimmers, both in construc-



was in good condition, and but for the peor railway facilities there would be no cause for complaint. It is claimed that it takes three weeks to get cars of lumber to points a hundred miles from Saginaw. It is said that by April 1st dealers will advance prices 50 cents to S1 a thousand; others think that there will be such a large cut that the bottom will fall out of the market.

The A. W. Wright Lumber Company are going out of business. I also heared the same of C. Merrill & Company. Bliss & Van Auken told me they had dropped the wholesale business.

Near the Johnson street bridge in West Sagmaw I saw a yard or piling ground reclaimed from the river lowland years ago made by piles of lumber covering the low ground, and from ten to twelve feet in depth. There seemed to me to be a couple of millions of feet of lumber used here in the years of plenty to form a piling. Alas, it is all retten now.

When I was in Saginaw a case was being tried in the county as to the value of some timber in Kentucky. The testimony went to show that the available supply would be exhausted in three years. It was necessary in the trial to locate a creek and one of the witnesses asked if he knew where Hell for-Certain Creek was. "Yes," he answered, "I have I cen through Hell for Certain!" The judge and the whole court roared.

At Bay City I was pleased to meet Mr. Miller, of Bradley, Miller & Company. Mr. Foss of E. B. Foss & Company and Mr. Glosser, of the Wolverine Lumber Company. These concerns are all progressive, as are also the Handy Bros. The latter have a capacity of six carloads of box shooks per day and use up 25 million feet lumber in a year. The four Handy Brothers are also miners and shippers of coal. They showed me an excellent article, for which I predict an immense

City, Mich., has also a large saw mill at Sarnia, built two years ago. They manufactured over 20,000,000 feet of lumber last year. His timber is in the Georgian Bay district and a full stock of logs is being cut for the mill the ensuing sawing season.

The Cieveland & Sarnia Saw Mills Company, formerly operating a saw mill near Marquette, Mich., have a large saw mill at Sarnia and are manufacturing over 30,000,000 feet of lumber annually. Their logs are rafted from Georgian Bay district.

The estate of Wm. Peter, formerly of Toledo and Michigan, operate a saw mill at Parry Sound, which cuts 25,000,000 feet annually and a full stock is being secured for the present year's cut

Mr. Peter formerly operated a saw mill at Bay City, Mich., but when it became no longer possible to raft logs from Canada to Michigan, he moved over to Canada. His son now resides in Toledo, where the head office is situated.

The Moulthrop Lumber Company, formerly of Bay City, operate a saw mill at John's Island, Georgian Bay, and cut 23,000,000 feet of lumber last season. It will have a full stock of logs for the ensuing season.

The W. & A. McArthur Company bought a saw mill at Little Current, Ont., after operating many years at Cheboygan, Mich. They are operating ten logging camps this winter and are putting in a full stock. The mill cuts about 30,000,000 in a single season.

At Cutlet, Ont., N. N. Wright & Company have a large saw mill. This firm is composed of Ralph Loveland, E. P. Stone and N. N. Wright, all experienced Saginaw lumbermen. The mill will cut 45,000,000 feet of lumber this year and is to run day and night. The entire cut has been sold to eastern parties at \$2 dvance over the same grade of stock last year.

tion and in operation, is claimed to have been reached in the "Tower" one-man 2-saw trimmer, manufactured by the Gordon Hollow Blast Grate Company, of Greenville, Michigan.

This trimmer is shown in the accompanying illustration. Both saws are operated by the same crank, moving toward each other or in opposite directions at an equal rate, the distance between increasing or decreasing two feet at each complete revolution of the crank. This crank is carried by one of the head blocks. Thus the operator shifts the saws as he walks toward the board to be trimmed. Hence he is ready to lay the board on the trimmer the instant the saws are properly set. This saves time.

Another very important feature about the "Tower" is the feed works. These are composed of gears, which ensure positiveness and accuracy. There are two feeds, which can be started, stopped or changed without stopping the saws. The same lever controls both feeds.

With this trimmer one man can easily trim the output of a mill cutting up to 30,000 feet in ten hours.

As our readers doubtless know, the Gordon Hollow Blast Grate Company claim to be the largest manulacturers of blast grates, edgers and trimmers in the world.

WESTERN RETAIL LUMBERMEN'S ASSOCIATION.

The annual meeting of the Western Retail Lumbermen's Association will be held in the city of Winnipeg on Tuesday, March 31st, and Wednesday, April 1st. Several matters of importance will be considered and a large attendance of members is anticipated.

THE NEWS

- W. H. Woodruff has purchased a saw-mill at Colebrook, Ont.
- --Potter & Son, of Tottenham, Ont., will build a saw mill at Beeton.
- -P. H. Clark has purchased and is refitting a mill at Huntsville, Ont.
- --Amasa Brown, of Salisbury, N.B., is about to creet a shingle and lath mill.
- -Buchanan & Lawson have purchased the Morris planing mill at Goderich, Ont.
- The Canadian Elevator Company is opening a lumber yard at Regina, N. W. T.
- -The Adams Lumber Company will erect a sash and door factory at Leibbridge, N.W.T.
- -R. M. Fullerton has been admitted as a partner in the Hayes Lumber Company, Elko, B.C.
- -The Conger Lumber Company, of Parry Sound, Ont., has installed a new lath machine.
- -It is reported that Knight Bros., of Burk's Falls, Ont., intend building a new factory.
- -Hind & Brownword are building a shingle mill on Howe Sound, B. C., to comprise four machines.
- -James R. Peterson, late of Collingwood, is opening a sash and door factory at Sault Ste Marie, Ont.
- -A. Blain has sold his lumber business at Crystal City., Man., to Robertson & Adams, of Snowflake.
- -A bonus has been granted to J. D. Pennington, of Dundas, to establish a wood-working factory at Dunnville, Ont.
- -The Delany-Pettit Company, of Toronto, have erected a factory to be devoted to the manufacture of excelsior.
- -D. McNair has been granted fore-hore rights to a piece of land at Vancouver, B. C., on which to build a shingle mill.
- -lt is understood that the G. & G. Flewelling Company will rebuild their saw mill and box factory at Hampton, N. B.
- -The Marysville Lt. For Company, of Marysville, R.C., has been incorporated, to operate a saw mill and deal in lumder.
- -Large quantities of hemlock bark are being soid in the vicinity of Haliburton, Ont. The average price is \$5.50 per cord.
- -Lemon, Gonnason & Company, of Victoria, B.C., intend establishing a saw mill as an addition to their sash and door factory.
- -D. Adams, of Victoria, B.C., is making preparations to re-open his saw mill on Rock Bay, which has been idle for a number of years.
- -The Sussex Foundry & Machine Company, Sussex, N.B., has amalgamated with the Sussex Woodworking & Electric Light Company.
- —The Abbotsford Lumber Company, Limited, has succeeded the Abbotsford Lumber Company, with a saw mill at Abbotsford, B.C.

- -Lequine & Company's saw mill at Smelter Lake, near Rossland, B.C., has started operations. The capacity is 30,000 feet per day.
- -Captain Garland has decided to erect a saw and shingle mill on False Creek in British Columbia. Cedar will be handled exclusively.
- —The Fernie Manufacturing Company, Limited, of Fernie, B. C., has been incorporated to carry on a lumbering and manufacturing business.
- —By the bursting of a fly-wheel of an engine in the saw-mill of Thomas Dougalt, at Kentville, Ont.. the engineer, Robert Ennis, was instantly killed.
- —The dry kiln in connection with the sash and door factory of D. G. Looniis & Sons, Sherbrooke, Que., was almost completly destroyed by fire last month.
- -The Bryan Manufacturing Company, of Collingwood, Ont., have made extensive improvements to their factory and installed a new band saw and engine.
- -John McGuirl has sold his lumber business at Moosomin, N. W. T., to the Prairie Lumber Company, of Winnipeg. Mr. McGuirl will continue his planing mill business.
- —It is stated that the Canadian Elevator Company will establish twenty lumber yards along the one of the Qu'Appelle, Long Lake & Regina Railroad in Manitoba.
- —William Mitchell and his son Alexander, of Broadhagen, Ont., have gone to Alberta, where they will build and operate a saw mill in the interests of Senator McLean, of Ottawa.
- -Irons & Winnacott, of Huntsville, Ont., have placed their order with McGregor, Gourlay & Company, of Galt, for a complete sash and door equipment. They recently added a resaw.
- -The Moyie Lumber & Milling Company, Limited, with head office in Pheonix, Arizona, has been given permission to do business in British Columbia. The mill will be located at Moyie.
- -John F. McRae, general superintendent of the Rat Portage Lumber Company, states that work will be commenced early in the spring on the new saw mill to be built by the company in Winnipeg.
- The Ladysmith Lumber Company has started a shingle mill at Ladysmith B.C. It is equipped with lohnson shingle machines, manufactured by the Schaake Mahinery & Engineering Company, of New Westminster.
- -Incorporation has been granted to Graham, Horne & Company, Limited, lumber merchants, Fort William, Ont. The capital is \$100,000, and the provisional directors are G. A. Graham, J. C. Graham and J. T. Horne.
- —C. B. Hume & Company, who have obtained a controlling interest in the Revelstoke Lumber Company, of Revelstoke, B.C., have made several improvements and built improved booms to prevent the loss of logs during the high water.
- -N. & A. Dyment, of Thessalon, Ont., have purchased the steamer Norseman, of the Gilchrist-Fletcher fleet. The steamer has a capacity of 500,000 feet of lumber and will be used in the Georgian Bay trade.
- Incorporation has been granted to the Big Salmon River Improvement Company, for the purpose of constructing works on the Big Salmon River, in St. John, to facilitate the rafting of logs. John E. Moore, of St. John, is interested.
- —An American syndicate is planning to establish a large woodworking and furniture factory on the Restiguiche river, in New Brunswick, where there are large quantities of birch and maple timber. John Montgomery, solicitor, of Campbellton, N.B., is interested in the project.
- -Victoria and Scattle parties have secured control of the saw mill of the Toronto and British Columbia

- Lumber Company at Sidney, B. C., and purpose operating the plant to its full capacity. The negotiations were brought to a successful issue by John Black & Company, of Victoria.
- "Urquhart Bross, of Courtenay, B.C., have leased the Leamy & Kyle mill at Vancouver. This firm have a large mill at Courtenay which they will dismantle and remove the machinery to Vancouver. They will also add some new machines, to be obtained from the William Hamilton Manufacturing Company, of Peterboro.
- -Preliminary arrangements have been completed for the construction of a large saw and shingle mill on False Creek, B.C. The promoter is W. T. Farrell, of Vancouver, who is also the owner of a shingle mill at Roche Point and of valuable timber limits. The new mill will be 50x100 feet and will comprise four shingle machines with a daily capacity of 40,000 shingles each.
- It is understood that work will be commenced within a month on the large saw mill to be effected on Deadman's Island, Vancouver, B. C., by Theodore Ludgate. The agreement provides that no Japanese or Chinese workmen shall be employed in the mill. The capacity will be probably 150,000 feet of lumber per day.
- The Mountain Lumber Manufacturers Association held its annual meeting recently at Craubrook, 1 C. The election of officers resulted as follows: President, A. Leitch: vice-president, J. W. Robinson; secretary-treasurer, W. F. Gurd; executive committee, F. C. Jones, Golden: J. C. Slater, Cranbrook: 11, 11, Bentley, Fernic; M. B. King, Cranbrook.
- The organization has been completed of the Newfoundland Lumber Company, composed chiefly of New York and Boston parties and capitalized at \$1,000,000. The company have secured the properties of the Highland Lumber Company and the Parrsboro Lumber Company. A large saw mill is being erected at Norris Arm, and it is probable that large pulp mills will be built as well, there being a plentiful supply of spruce and adequate water power.
- The new saw mill at Arrowhead, B. C., together with extensive timber limits on Arrowhead Lake and the Columbia river, have been secured by Thomas Mercaith of Yorkton, N. W. T., W. W. Fraser, of Emerson, Man., A. McMillan, of Buinside, Man., and Mr. Taylor, of Arrowhead. The mill has a daily capacity of 30,000 feet. It is the intention of the new owners to build a new mill of large capacity and to market the output in Manitoba and the Territories.
- An organization has been formed in British Columbia called the Pacific Coast Shingle Weavers Association. The object of the association is to keep out the Chinese labor from the mills and thus to maintain a fair standard of wages. Several Chinamen are engaging in the shingle business. One named Chow is starting a mill to be operated by Chinese labor, and Sain Kee, a store-keeper of Chinatown, is negotiating for the purchase of a shingle mill already erected.

The Crow's Nest Pass Lumber Company is equipping its new mili at Wardner, B. C. It will include a double-cutting band and circular mill, planing mill and dry kiln. The saw mill will have a capacity of 150,000 feet in ten hours. The company owns an immense body of timber, estimated at 600,000,000 feet and comprising yellow pine, tamarac, cedar and fir. Peter Lund, of Spokane, Wash., is managing director of the company, and H. C. Lindsay superintendent of the manufacturing department.

"The Red Deer Lumber Company has been organized with headquarter in Winnipeg and officers as follows: President, O. A. Robertson, St. Paul: secretary, F. R. Lynch, St. Paul; general superintendent, H. J. Box, Winnipeg. The company is capitalized at \$500,000 and owns a large area of spruce tumber limits on the Red Deer & Etoinami rivers in Saskatchewan, estimated to contain 200,000,000 feet of tumber. A mill will be built on Red Deer Lake, on the new Prince Albert line of the Canadian Notthern Railway.

Emery Wheels, Corundum Wheels



All our wheels are first-class in every respect. All special shapes supplied without extra charge,

and Grinding Machinery

Are you using our Improved Corundum Saw Grinding Wheels? We guarantee them to cut faster and cooler than any other wheels on the market. Will not burn saws and are just what your filer wants.

Send sample order to be supplied on approval.

Canadian Corundum Wheel Co, Hamilton, Canada

MARCH, 1903

TRADE NOTES

The American Blower Company, of Detroit, Mich., have issued a neat booklet, No. 145, entitled "The Heating and Ventilation of Manufacturing Establishments"

By an order-in-council the name of the Stuart-Arbuthnot Machinery Company, Limited, of Winnipeg, has been changed to the Stuart Machinery Company, Limited.

The Canada Coundum Company, of Hamilton, in their advertisement on page 15 of this number, call the attention of mill owners and operators to their saw grinding wheels. The special claim made for these wheels is that they cut without burning, a quality that the saw filer has long been looking for.

At a recent meeting of the directors of the Albion Iron Works, Victoria, B.C., Theodore H. Macdonald was appointed manager. Mr. Macdonald has had a wide experience as a mechanical engineer in the United States. It is probable that the plant of the company will be considerably enlarged.

Robert Bell, of the Seaforth Engine Works, Seaforth, Ont., recently closed a contract for 120 engines for delivery in the North-West Territories. The contract was made with a large American firm; it covers a period of three years and represents a consideration of over \$160,000. It is probable that Mr. Bell will be compelled to increase his manufacturing facilities.

The Simpson Lumber Company, of South Bend, Washington, have ordered another No. 300 thermometer from the Helios-Upton Company, of Peabody, Mass. The latter company have also received a communication from the Northern Lumber Comany of Everet, Washington, stating that they are very much pleased with the thermometer supplied for registering the temperature in their dry kilns.

The Dyment Butterfield Company, of Barrie, Ont., have recently fitted up their works with patterns and equipment for the manufacture of a line of up-to-date

saw, shingle, and lath mill machinery. Their works are conveniently located to supply the mills on the Georgian Bay and in Western Canada. Our readers are referred to their announcement in our advertisement pages and requested to communicate with them for particulars and prices of their machines.

Lumbermen should be interested in the advertisement in this issue referring to the Blickensderfer typewriter. The claims made for this machine are that it combines low cost with lightness, compactness and durability; that placing all the characters on one wheel insures perfect alignment; that the type are interchangeable and the writing always in plain sight; that by the means of an automatic tabulator, columns of figures can be printed as easily as ordinary words.

The Goderich Engine Company report that business is good. They are supplying the following machinery to lumber firms: Pigeon River Lumber Company, Port Arthur, one new compound engine, 16 in. and 28 in. x 22 in., for tug "Laura Grace"; Moulturop Lumber Company, John's Island, one new engine 13 in. and 24 in. x 16 in. for tug "A Wright"; Geo. Chew & Son, Midland, new engine 10' and 20" x 14" and Scotch boiler for their new tug now building at Midland; Shuswap Shingle and Lumber Co., Sicamous, B.C., machinery for a new tug.

THE MILNER-PETROLEA WAGON COMPANY.

Among the important industries of Petrolea, Ont., is the wagon company of the above name. A walk through these works will convince anyone that they are up-to-date in every particular. The company have been fortunate in securing a location between the Grand Trunk Railway on the east and the Michigan Central and C. P. R. on the west and have sidings from each line into the works, thus giving them unequalled facilities for handling their raw material inward as well as for outward shipment of their wagons. The buildings are of brick, two stories high and built in the form of the letter "E," which makes them compact while furnishing a large floor space. The machin-

ery has been selected with the greatest care, none but the latest and best design being put in. The arrangement throughout shows thorough knowledge of the best and most economical methods of working a plant of this kind. The company have their own electric lighting plant and steam heating system.

of the best and most economical includes of working a plant of this kind. The company have their own electric lighting plant and steam heating system.

The superintendent of construction, Mr. William Milner, has had a very wide experience in the manufacture of wagons and has a staff of skilled workmen in each department. Material for every part is selected with the greatest care and no effort is spared in attaining excellency of workmanship throughout and finish. The company are working up to full capacity and state that they have large orders in hand. The attention of lumbermen is called to their advertisement in this number.

The Lumberman's Diet

Clark's Corned Beef and Clark's Pork and Beans are the best produced in Canada and equal to the finest imported. Get quotations from your jobber.

W. CLARK, Manufacturer, MONTREAL

High Speed Pumps

We offer for special duties the John Stumpf Patent High-Speed Pump manufactured under Canadian Patent No. 66295, dated February 19th, 1900. Particulars and prices on application.

WATEROUS ENGINE WORKS CO.
BRANTFORD, ONT.

™ Milner Petrolea Wagon Co.

----MANUFACTURERS OF----

HIGH Lumber Wagons GRADE Trucks and Sleighs

FACTORY EQUIPMENT UNEQUALLED

Experienced Management
Specially Selected Material
Skilled Workmen

Combine to Make Ours

The Best Wagon on the Market

Head Office and Works - PETROLEA, ONT.

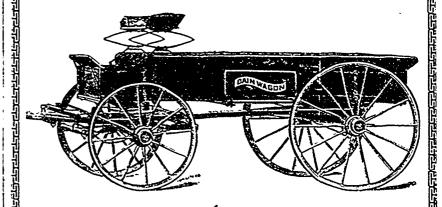
Bain Waggons

SOLD BY

MASSEY-HARRIS

Agents Everywhere

have won renown wherever used.



In South Africa
they Were Undoubtedly
the Faventes.

Thousands use them.

INSIST ON GETTING

Cases 2 doz, each 2 lb. tins, per case \$1.90

5 lb. 2.35

to lb. 2.25

20 lb. 2.10

Have it also in barrels and pails, freight paid on same, also in 5 case lots, up to North Bay.

Lucas, Steele & Bristol, Hamilton, Ontario.

PERSONAL.

Mr. Robert Cox, lumber merchant, of Liverpool, Eng., arrived in Ottawa on a visit a fortnight ago.

Mr. William Sawyers, a lumber and shingle dealer at Mansfield, Ont., died recently in that village.

The late George J. Cook, president of the Cook & Bros. Lumber Company. Toronto, left an estate valued at \$789,300.

Mr. J.G. Colmer, C.M.G., for twenty years secretary to the High Commissioner for Canada at London, Eng., has tendered his resignation.

Mr. F. B. Maxwell, of Morrisburg, Ont., died recently after a somewhat prolonged illness. He was seventyfive years of age and for many years was superintendent for the Cook & Bros. Lumber Company, of Toronto.

Mr. W. J. Sheppard, of Waubaushene, Ont., spent some time recently, on the Pacific coast. In association with Mr. J. G. Scott and others comprising the Pacific Coast Lumber Company, he is building a mammoth saw mill at Vancouver.

The death took place recently of Mr. Duncan Fisher, of Paisley, Ont., who was well known in the Bruce peninsula as a large owner of timber. He was born in Osgoode, Carlton County, and first became a citizen of Paisley in 1869.

PUBLICATIONS.

"Queen's Quarterly" for January contains an interesting article by Mr. A. P. Knight on "Sawdust and Fish Life."

A neat celluloid pocket calendar has been received from the International Lumber Company, of Sault Ste Marie, Ont.

We are in receipt of a copy of the seventeenth

annual report of the Port Arthur Board of Trade, bearing the compliments of Mi. R. Vigars.

The R. Laidlaw Lumber Company, of Toronto, Sarnia and Buffalo, have favored us with a neat calendar and a useful memorandum book.

Mr. J. F. Stengel, wholesale dealer in pine and hardwood lumber, Ruffalo, has favored his friends with an attractive calendar. A sturdy lad is shown holding a rifle, the title being "Hunting for Business".

"Economics of Forestry" is the title of a book of 520 pages, written by Professor B. E. Fernow, Director of the New York State College of Forestry, and published by Thomas Y. Crowell & Company, 426 West

P. PAYETTE & CO.

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

FENETANGUISH ENF, ONT



to inch Swing; \$4.50 Net Cash, 14 inch Swing, \$5.40 Net Cash.

Emery Wheel not included.

Grinding Ma-chines, Saw Gummers, Diam-ond Tools, Knife Grinders, Emery, etc., etc.

THE TANITE CO.

Stroudsburg. Penna

Broadway, New York. It treats of forests and forestry from the standpoint of political economy, and brings to-gether with professional completeness and accuracy all that a student of economics would like to know. The authors name alone stamps the work as second to none.

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, Yass.

ERWRITERS

write fire insurance on lumber only, confining themselves exclusively to the best Large lines at low rates. moral risks.

POST INQUIRIES TO THE HOME OFFICE

66 BROADWAY

NEW YORK



Sole anadian Agents Inces Reduced WATEROUS BRANTFORD, CANA DA

Have YOU seen or are YOU using the

SLEEPER PATENT ENGINES for Steam Feeds for Saw Carriages?

Reverse instantly, at any point, without special gear. Are always under instant control.

Run without noise or vibration, and at very high speeds.

Are strong, rigid, and extraordinarily light, compact and portable.

Can be installed in almost any conceivable position.

Require no adjustment and very little attention.

Are the very latest, the very best, and by long odds the most economical engine on the market.

We also manufacture engines for every description of service, and of all powers. Direct connected electrical units, and small engines for general lumber and agricultural service are specialties of ours. Catalogs and prices upon application.

The SLEEPER ENGINE COMPANY, Limited Montreal.

Office and Works, Cor. Darling and Notro Darno Stroots.

1

THEY

Phone, East 2403.

WOOD PULP ~0 ©~ DEPARTMENT

THE SCANDANAVIAN PULP MARKET.

In view of the competition which Canadian pulp manufacturers meet in Great Britain the following review of the Scandinavian market, taken from the World's Paper Trade Review, will be of interest:

The wood pulp market during the last few weeks invites little comment. The unusual water scarcity, discovered not so very long ago, has brought a stop to business at unremunerative prices. Sellers are awakening to the fact that for prompt shipment pulp is becoming scarce, and that by holding out there is every possibility of obtaining a good price a little later on.

The hard frost has lately increased the water scarcity, as the water in the rivers simply freezes away. At this present moment I think that about one-third of the normal quantity of pulp is being produced by the Norwegian mills, and, according to the reports from Sweden, it seems, if not equally bad there, that there is less water than usual.

It is believed that most of the mills are certain to find that it does not pay them to keep going, and they will then stand idle till the end of April.

The water scarcity over here has created an extra demand from some of the Norwegian paper mills, otherwise making their own pulp. At least one of them has bought a rather large quantity, at prices from Kr. 32 to Kr. 33 f.o.b., and may want more.

The offers from the Continent and Great Britain have an upward tendency. With the firm American market for pulp and paper, and the lessened output both in Scandinavia and Germany, this is only natural, and more so as the threatening prospects of a crisis in United States this time have passed over.

The autumn speculations, however, are apt to make themselves felt just in such a position of the market as now. Buyers holding contracts over 1903 with speculators feel certain, or at least have a strong hope, that the speculators will be able to fulfill them, and the de-

mand, which would otherwise exist, is on account of this not there to keep up prices.

Conversing with a large pulp exporter here recently, he told me that he would not sell under Kr. 35 for pulp over the year, but although enquiries now are plentiful, and prospects for the immediate future good, I am afraid that it will be difficult to obtain this figure for deliveries over the year. This will to a certain degree also depend upon the stocks abroad. As far as I can learn, the stocks on the Continent are of normal size, or if anything below, while in Great Britain most of the paper mills have plenty to handle before they are obliged to make fresh contracts. There may, however, be some mills in the United Kingdom which are at present short of pulp.

The development of the market is eagerly watched over here, and at present no contracts for prompt shipment can be made under Kr. 34-35 f.o.b. This present position will, I think, continue without alteration for some time to come, as stocks now are small and production almost nil. Sellers can, therefore, afford to wait.

C! N! DIAN EXPORTS OF PULP WOOD AND PULP.

Official returns made public by the Canadian Government show that there has been a marked increase in the export of pulp wood to the United States. During the last six months of 1902 American mills received \$944,012 worth of pulp wood, as against \$576,276 worth in the last half of 1901, an increase in 1902 of \$367,-736 worth.

A similar increase is shown in the exports of wood pulp from Canada to the United States. During the last half of 1902 the shipments across the border reached the aggregate value of \$827,985, while in the same period of 1901 the shipments of wood pulp reached a total value of \$480,246, an increase in favor of the last half of 1902 of \$347,738.

The percentage of increase in the exports of wood pulp for the last h lf of 1902 over the corresponding period in 1901 was over 61. In wood pulp the comparison of these periods shows that the per centage of increase for the last six months of 1902 was over 70. The fact that the American mills have made such largely increased demands on the Canadian pulp wood and wood pulp is significant, coming as it does so soon after the Canadian manufacturers made the demand on the Federal Government for the imposition of an export tax.

During the last six months of 1902 Canada sent to Great Britain \$610,046 worth of wood pulp, as against \$452,434 worth sent during the last six months of 1901. The increase in favor of the 1902 half year is \$157,612, or 32 per cent.

THE NEPIGON PULP AND PAPER COMPANY.

The above company obtained a timber concession in the vicinity of Nepigon River and Nepigon Lake, in the district of Thunder Bay, in 1900. It was the intention to have dammed the Nepigon River at the foot of Lake Ellen, and to have erected pulp mills at Nepigon. Owing to difficulty with the Canadian Pacific Railway the company was foiled in its plans. It has since obtained a renewal of the concession and an amendment to the charter, giving it the power at Cameron Falls, some twelve miles up from Nepigon. Active operations were commenced in July of last year. A number of substantial buildings have been erected and considerable work has been done on the water power. The local conditions for the development of the water power are very favorable, the stream affording thirty t' ousand horse power.

The capital for the carrying on of the work has for the most part been secured. All plans and drawings for the development of the water power have been drawn and are complete and ready for construction. A road has been constructed from the Canadian Pacific Railway to the works, and a large amount of supplies and material, including three thousand barrels of cement, will be taken in this winter to facilitate the progress of the work next summer. The company have also given a contract for cutting one and a half million feet of lumber and timber to be used in construction. The expenditure to date in round figures is \$50,000. Next season's estimated expenditure in the line of construction is \$300,000.

JOSEPH'H. WALLACE, C. E.

MILL AND HYDRAULIC ENGINEER PULP AND PAPER MILLS.

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

WATER POWER DEVELOPMENTS

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

DREWSEN 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,

PULP NOTES.

The annual meeting of the Sissiboo Pulp & Paper Company will be held in Montreal on March 25th.

It is understood that the pulp mill of the Jonquieres Pulp Company, Jonquieres, Que., will be entirely remodelled.

It is reported that Price Bros. & Company will build a pulp mill at Ha-Ha Bay and another on the Aux Sables river, where a 250-foot head will be developed.

The Imperial Paper Mills Company of Canada has been incorporated, with a capital of \$3,000,000. It is proposed to take over the business of the Sturgeon Falls Pulp Company at Sturgeon Falls, Ont.

C. B. Campbell has interested capitalists in the erection of a pulp inill at Dryden, Ont., and it is understood that the preliminary work will be commenced early in April.

It is reported that E. Steadman, late manager of the Sissiboo Pulp Company, is to succeed Joseph Hughes as manager of the Acadia Pulp & Paper Company at New Germany, N. S.

The first mechanical wood pulp factory in Austria was erected in 1866 by Moritz Markl, whose death (in his 79th year) is just announced. He was a partner in the paper making firm of Markl Bros., Rabenstein, Lower Austria.

The annual general meeting of the Peribonca Pulp Company was held in Quebec recently, when a satisfactory report was read, followed by the election of officers. Hon, A. Robitaille, provincial secretary, was elected president, and N. Bernatches vice-president.

The Chatham World says that the New Brunswick Government is destroying all hope of the pulp mill at Chatham resuming operations by withdrawing the Crown land leases and giving permits to operators to work on the lands which the pulp company assigned to its creditors.

It is rumored that the Rainy River Pulp & Paper Company will proceed at once to build a pulp mill on the Sand Island river, near Mine Centre, Ont. It is further stated that the contract for electric plant has been awarded to the Westinghouse Electric & Manufacturing Company, of Pittsburg.

B. W. Burleigh and W. N. Weeks, extensive dealers in pulp wood of Whitehall, N. Y., were recently in Quebec. Mr. Burleigh stated that he expected to export at least 50,000 cords of pulpwood for his firm during the coming season of havigation, and another 50,000 cords for the International Paper Company.

The United Lumber Company, of Halifax, operating extensively in Nova Scotia, have decided to build a large pulp mill on the Clyde River, in Shelburne county. Engineers who have investigated the water

power report that 3,000 horse power is available. It is probable that operations will be commenced next

An announcement from Wallace, Jaastad & Drewsen, New York, reminds us that they are splendidly equipped for designing pulp mills, electric lighting and power stations, manufacturing plants, etc. Mr. Wallace has planned over 75 manufacturing plants and hydraulic developments; Mr. Jaastad has designed upwards of 50 steam and electrical installations and paper and pulp mills, while Mr. Drewsen is a recognized authority on chemical processes of manufacture.

Of the British pulp market an exchange says Prices of mechanical are decidedly going up, and still higher values are anticipated. The scarcity of water in Scandinavia is more acute than is generally realized, and the out-turn of the majority of the mechanical pulp mills has dwindled considerably. Although there are still some cheap lots of chemical low grade pulp offering, the prices for the better qualities are distinctly firmer. Trade, however, is exceedingly dull, and there is very little demand at present.

The Lake Superior Timber Company, of Port Arthur, Ont., has contracted to deliver seventy cargoes of pulp wood to Port Huron, Detroit and Cleveland the coming season of navigation. The manager, Mr. Bishop, says: "We have sold for this year's delivery between 20,000 and 25,000 cords of pulp wood, and we could sell much more if we could secure the men to get it out. Labor is scarce, however, and we have to do the best we can. The shipments of pulp wood by the company will be from the Nepigon Straits, and the first cargo will be loaded about June 1."

CHAS. H. VOCEL

47 and 48 Carleton Chambers,

__OTTAWA, CAN.

Long Pistance 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



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

Dundas Axes

DUNDAS AXE WORKS Dundas, Ont.

₩

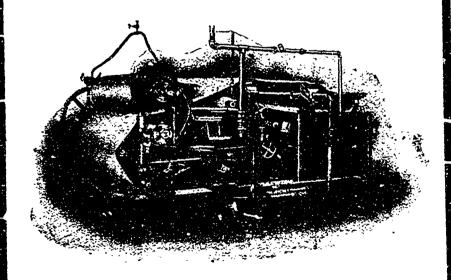
In this type of machine even pressure on felt is secured by means of hydraulic pressure cylinders on each side of machine, acting through their pistons on compound levers, which increase pressure on rolls to 1000 times that on pistons

Pressure varied at will by operator.

(III)

Improved Wet Machine Pattern

With Hydraulically Loaded Press Rolls.



We also build an improved pattern Wet Machine identical with this type save that the rolls are spring loaded, instead of hydraulically loaded.

This type has given good satisfaction, and we have installed it in many mills.

今田野今

Our new 1903 Catalogue of Pulp Mill Machinery, Catalogue E, is now in preparation, and by applying now, you will be sure of a copy when issued.

The Jenckes Machine Company.

81 York St., Toronto. 18 Victoria Sq., Montreal. Rossland, B.C.

36-40 Lansdowne St.,

Sherbrooke, Que.

Winnipeg. Halifax Greenwood, B. C.

LOG SORTING



All Night

RV 1 S186 PERMANENT ACETYLENE

Write for Particulars

Permanent Light 60.



Please mention Canada LUMBERMAN when corresponding with advertisers.

OILS

Manufacturers High-grade Cylinder, Machine and Sawmill Oils.

Calypsol Grease

for Sawmill Purposes a Specialty. Our products are made from finest Penn-sylvania stocks.

We solicit your correspondence.

S MONTREAL
Offices and Works
Ma inchester, Hing.
Hamburg, Germany.
Newark, N. J.
Chicago, Ill.

C_mmercial Oil Co., Hamilton, Ont.

W. M. Dunlop

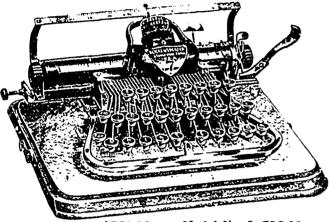
Accountant and Auditor

25 Sparks Street

Ottawa, Ont.

LUMBER AND PULP MILL ACCOUNTS A SPECIALTY

Correspondence Solicited . .



Model No. 7, \$50.00

Model No. 5, \$35.00

Write for particulars to

A STANDARD MACHINE that will do as much work in a neater and better manner than any machi, e on the market and costing twice the money. For manifolding and mimeographing it has no equal. Has inter-changeable type and line spacing, visible—writing, perfect—and per-manent—alignment, is simple, durable and portable.

Detachable Chain Belt -- AND--CONVEYING MACHINERY

William R. Perrin @ Company

TORONTO, CANADA.

H. W. Knack, Sales Agent, Bay City, Mich.

Lloyd Manufacturing

JOHN I. LLOYD, Proprietor.

Pulp Machinery, Belting, Etc.

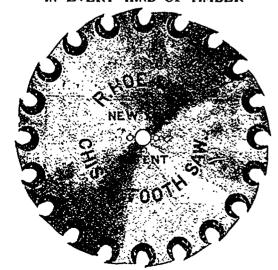
OUR SPECIALTIES:

Band Saw Mill Machinery, Improved Rotary Saw Mills, with Green Mountain Dogs, Also Screw Post Dogs, Turbine Water Wheels

Power Feed Gang Edgers, Buzz and Surface Planers, Heading Rounders, Stave Machines, Stave Jointers, Stave Planers.

KENTVILLE, N. S

OVER 35,000 IN USE IN EVERY KIND OF TIMBER



THE ONLY SUCCESSFUL INSERTED - 1 OOTH SAW.

THE TWENTIETH CENTURY SA

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.

We have been manufacturing Logging Tools Continuously since 1870.

Many of our 1870 customers still continue using Champion

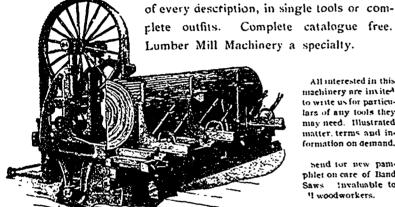
You Know Why

Our illustrated catalogue and price list on application.

Ghampion Tool & Handle Works,



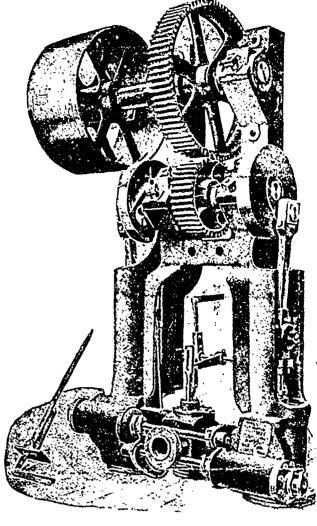
WOOD-WORKING MACHINERY



All interested in this machinery are invited to write us for particulars of any tools they may need. Illustrated matter, terms and inormation on demand.

Send for new pam-phlet on care of Band Saws Invaluable to 11 woodworkers.

F. H. Brydges & Sons, Winnipeg, General Agents for Manitoba J. A. Fay & Egan Co., Cincinnati, Ohio.



INMAN POULSEN Oregon Pine Lumber

Portiand Origo: January 8th 1903

Pertland, Oregon.

GENTLEMEN. we have ever undoubtedly equal to-day Pacific Const.

Yours truly.

WIN ENGINE STEAM FEED

MANUFACTURED SOLELY BY---

MANISTEE IRON WORKS CO., MANISTEE, MICH.

A. F. BARTLETT & CO.

MANUFACTURERS OF

Gorliss Engines Slide Valve Engines Saw Mill Machinery Steam Pile Hammers Mining Machinery, Etc.

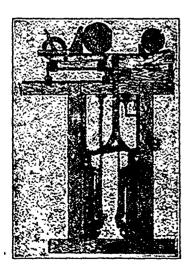
WATCH THIS SPACE FOR SPECIAL ATTRACTIONS.

WRITE FOR CIRCULARS AND CATALOGUES. WE BUY AND SELL SECOND-HAND MACHINERY.

830 SO. TILDEN ST., - SAGINAW, MICH.

Plain Tales from the Hills

(NOT BY KIFLING)



Here is a machine. It is called a Hill Steam Nigger. With it you can increase the cut of your mill three to five thousand feet per day. It can also make the two or three men now ornamenting your log deck superfluous luxuries. Now, stop and figure out how much more money you will be worth in a year if you can increase your cut and decrease your pay roll as we have said, then you'll order a Nigger.

Write for Catalogue B.

WM. E. HILL & CO.,

415 N. Rose Street,

KALAMAZOO, MICH-

'MOOSE HEAD BRAND'

Lumbermen's Oil Tanned Larrigans

F you want goods that will Fit, Wear and Give Satisfaction, be sure you get our make.

Every pair stamped with our trade mark "Moose Head

Brand " and are fully guaranteed.

The leather in our goods is thoroughly tanned and they are all right for keep-over stock, as the leather will last for years.

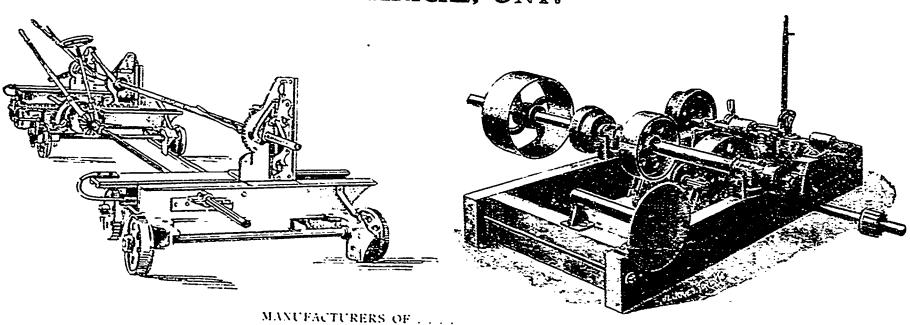
Handled by all the leading jobbers of Boots and Shoes and Lumbermen's Supplies.



JOHN PALMER 60., Limited, Fredericton, N.B., Ganada

Dyment, Butterfield & Co.

BARRIE, ONT.



Engines, Boilers, Saw, Shingle

and Lath Mill Machinery

WHEN IN THE MARKET WRITE US FOR PRICES.

THE CANADA LUMBERMAN

DIRECTORY OF ADVERTISERS

In " Canada Lumberman" Monthly Edition.

Campbell Bros., St. John, N. B. Dundas Axe Works, Dundas, Ont. Warnock & Co., Jas., Galt, Ont.

BELTING

Canadian Oak Belting Co., Brockville, Ont. Durham Rubber Co., Bowmanville, Ont. Fleming, W. A., Montreal, Que. Forres'er Co., Thos, Montreal. Gutta Percha Co., Torento. Goodhue, J. L. & Co., Danville, Que. Lowis, Rico & Son, Ltd., Representing Hoyt's Belting. The Waterous Co., Brantford. Young, J. S., Montreal.

BABBITT METAL

. T. Wing, Detroit, Mich. Syracuse Smelting Works, Monttreal, Que.

DRY KILNS

A. H. Andrews Co., Chicago, III.
American Blower Co., Detroit, Mich.
McEachren Hesting & Ventilating Co., Gait, Ont. Standard Dry Kiln Co., Indianapolis, Ind.

FILES AND RASPS

Spence & Co., R. Hamilton.

LUMBERMEN'S SUPPLIES

Bekerdt, H. P. & Co., Toronto.
Gartanore, John, Toronto.
Lucas, Steele & Bristol., Hamilton, Ont.
Rice Lewis & Son, Toronto.
T. mer & Sons, J. J. Peterborough, Ont.
Woods, Jas. W., Ottawa, Ont.

LARRIGANS

Palmer, John, Fredericton, N. B. Sherry, J. P., Memramcook, R. B.

LUMBERING TOOLS

Champion Tool & Handle Works, Brait, Mich. Morley Bros., Saginaw, Mich. Thos. Pink, Pemoroko, Ont.

MACHINERY

MACHINERY

Bartlett & Snow Co., Cleveland, Obio.
Buffalo Tool and Machine Co., Buffalo, N. Y.
Bartlett & CJ., A. F., Saginaw, Mich.
Carrier, Laine & Co., Levis, Que.
Drako, F. J., Belleville, Ont.
Dunbar & Sons, Woodstock, N.B.
Dyment, Butterfield & Co., Barrie, Ont.
Gordon Hollow Blast Grate Co., Gicenville, Mich.
Godorich Engine Works, Goderich, Ont.
Kennedy & Sons, Wm., Owen Sound, Ont.
Lloyd Mannifacturing Co., Kentville, R. S.
Larrie Edgine Co., Moatreal.
Manistee Iron Works, Manistee Mich
Madison Williams, Port Perry, Ont.
Mowry & Sons, B.R., Gravenhurst, Ont.
Mershon & Co., W. B., Saginaw, Mich.

Owen Sould Iton Works Co., Owen Sound Out P. Payette & Co., Penetanguirnene, Ont Petkins & Co., Grand Rapids, Mich Pettine, H. W., Toronto, Ont.
Perin & Co., W. R., Toronto, Ont Robb Engineering Co., Amberst, A. S., Roogers Iton Mig., Co., Muskegon, Mich. Stuart-Arbathnot Machinery Co., Winnipeg. Sleeper Ragino Co., Montreal.
The K. Long Mig., Co. Orillia, Ont The Wm. Hamilton Mig. Co., Peterboio', Ont The Waterous Co., Brantford.
The M. Garland Co., Bay City, Mich.
Wickes Bior., Saginaw, Mich.

OILS

Commercial Oil Co., Hamilton, Ont. Queen City Oil Co., Toronto.

PULLEYS

Dodgo Mig. Co., Toronto, Ont. Reeves Pulley Co., Toronto.

PULP AND PAPER MILL MACHINERY The Jenckes Machine Co., Sherbrooke, Cor. The Waterons Co., Brantford.

PAPER AND PULP MILL ENGINEERS

Drewsen Company Wallace, Jos. H., C.B. Vogel, Chas. H., Ottawa New York

SAW MANUFACTURERS

Atkins & Co., B. C., Indianapolis, Ind.
Bains, B. R., Saw Co., Toronto, vn.
Shuily & District, Gait, Ont.
Boo & Co., R., New York.
The James Robertson Co., Montreal, Que.
The Ottawa Saw Co., Ottawa, Ont.

WACONS.

Adams Wagon Co., Stratford, unt. Massey-Harris Co., Toronto. Milner Poirolea Wagon Go., Potrolea, Ont. Walkerville Wagon Co

Dominion Wire Rope Company, Montreal Greening Wire Co., B., Hamilton, Ont. Mussen & Co., Montreal, Que.

MISCELLAHEOUS

Alexander Engraving Co. Can Office and School Furniture Co., Preston, Ont.

Can Office and School Furniture Co., Preston, Ont.
Can Office and School Furniture Co., Preston, Ont.
Can Hooks and Peavies, McParlane-Neill Mfg Co., St., Mary s. B.
Embossed Mouldings, Boynton A. Co., Chicago III.
Flooring, Thos. Forman Co. Detroit, Mich Conding Machinery, Emery and Corundum Wheels Canadian Corundum Mill Dogs, Canton, Pearl Logal, Denton, Dunna N. Foultheet, Toronto, Ont Mill Dogs, Canton Saw Co., Canton, Ohio Recording Thermometers, Helios Upton Co., Pearloody, Mass.
Resaw for Slabs Win, Duncan, Montreal Saw Swages, Hanchett Swage Works, Big Rapids, Mich.
The Braddirect Mercantile Agency, New York and Toronto.
Typewriters, H. W. Knack, Bay City, Mich Turbines, Madison Williams, Port Perry, Ont. Tool Handles, Bigth Handle Works.
Venechman's Time Detector, E. Imhauser, New York.



Branch Houses

44 Scott Sireet, Teronto, Ont.

Homphis, Tenn. Pinneapolis, Minu.

Atlanta, Ga. Portland, Ore.

No. 64 Heade St., New York City, N. T

Atkins

High Grade Silver Steel Saws

Are the "Quality" Saws of the World

They are the Finest in Material, Temper, Workmanship and Finish. Maybe they are not so cheap as some—but saws that are "Cheap in the Bill" often prove "Dear in the Mill." You take no chances on Atkins Saws. Write for our Sawyer's Hand-Book. It's free.

ATKINS & CO., INDIANAPOLIS, IND., U. S. A.

Manufacturers of Gircular, Band, Hand and Gross Gut Saws, Tools, Etc.



Galt Machine Knife Works



MACHINE KNIVES

OF EVERY DESCRIPTION

Woodworking Machines . Send for Price List

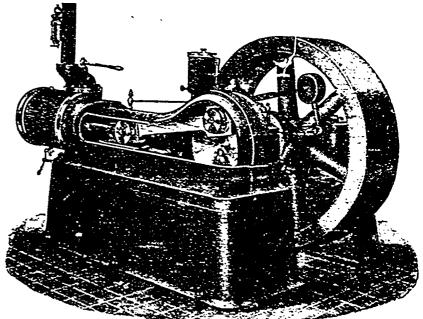
PETER HAY Galt, Ont.

CAMP SUPPLIES

We make a Specialty of Supplies for Lumber Camps.

H. P. ECKARDT & CO.

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 vi-bration."

Robb Engineering Co., Limited,

WHOLESALE GROCERS

Cor. Front and Scott St. TORNHTO





OUR EXTRA HAND-MADE

AXE

This Axe stance better in frost) weather than any

CAMPBELL BROS.

St. John, N.B.

ESTABLISHED 1844. Charles F. Clark, Jarko Chittenden, President. Treasurer

BRADSTREET'S Capital and Surples, \$1,500,000.

Offices Throughout the Civilized World.

Offices Throughout the Civilized World.

Executive Offices

Not. 145 and 348 Broadway, New York City, U SA

THE BRADSTREET COMPANY gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercanile reedit. Its business may be defined as of the mer hants, by the merchants, for the merchants. In procuring, entitying 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 sifairs and mercantile credit. Its offices and connections have been steadily extended, and it farmishes 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 encerns, and by responsible and worthy financial, fair stary and business corporations. Specificers may be obtained by addressing the company of ny of its offices. Correspondence invited

THE BRADSTREETS COMPANY.

THE BRADSTREETS COMPANY.

FICES IN CANADA: Halifax N.S. Hamilton, Ont., odon Ont.; Montreal, Que; Ottawa, Ont., Quebec, e.; Si John, N.R. Toronto, Ont. Vanc. aver C.; Wianipeg, Man.

THOS. C. IRVING,
Gen. Man Western Canada, Toronto

The . .

Head Office: TORONTO.

HIGHEST GRADES OF

Refined Oils Lubricating Oils

Petroleum **Products**

RE-OPENED FOR ORDERS

Blyth Handle Works BLYTH, ONT.

ool Handles

LUMBER CAMP SUPPLIES A SPECIALTY

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

Catalog on Application

E. LIVINGSTONE, Prop

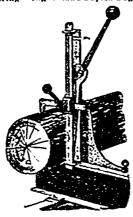
Glass Patent Duplex Mill Dogs

These dogs have no springs, no ratchet, no pewls, nothing to get out of order, but have a positive grip so that no log can become loose of turn while being sawed. Dogs sawed. Dogs can be fastened on any head block knee and will hold small

single head block if neces sary to do so. Upper and gether or inde each other.

Dogs either right or





Manufacturers of Saws, Saw Mill Dogs and Supplies.

S.uth Rex Street,

CARTON, OHIO

National Trust Chambers.

REBBERT L. DUNN

DENTON, DUNN & BOULTBEE Barristers, Solicitors, Notaries, etc.

RAILS For Logging Tramways, Switches Etc.
New and Second Hand.

John J. Gartshore 83 Front St. West, (Opposite Queen's Hetel,) Teronto

ESTABLISHED 1879.

the Stuart-Arbuthnot Machinery 60.

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

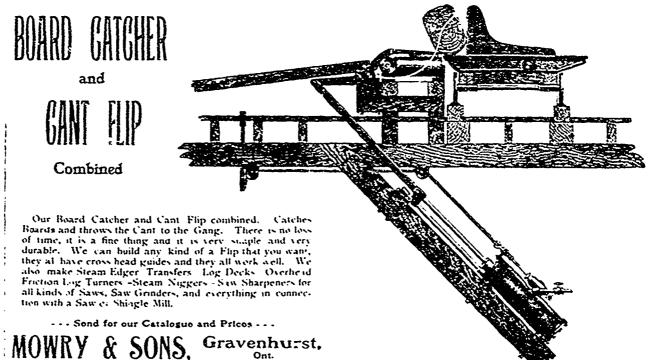
. . . . Write us for Quotations



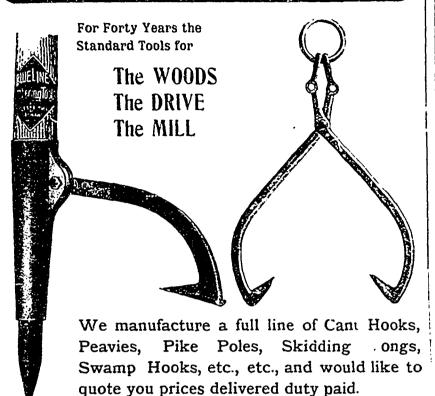
ONE DOLLAR

Will pay your Subscription to the Weekly and Monthly CANADA LUMBERMAN for

ONE YEAR



BLUE LINE LUMBERING TOOLS



MORLEY BROTHERS, SAGINAW

WRITE FOR OUR CATALOGUE SHOWING COMPLETE LINE

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

MADE AND SOLD ONLY BY

WICKES BROS., SAGINAW,
Catalogue on application.

We make a specialty of

LOGGING TRUCKS

-AND

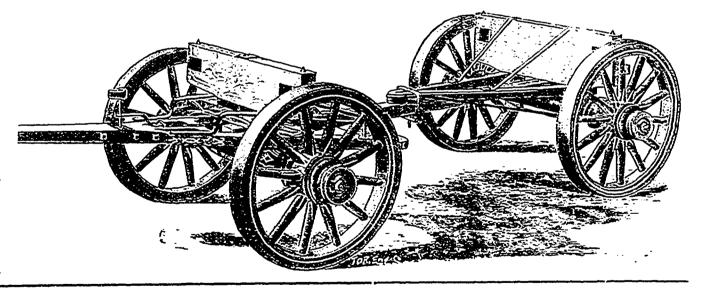
Heavy Teaming WAGONS

If in the market write for catalogue and prices.

Adams Wagon Go.

Brantford,

Canada





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

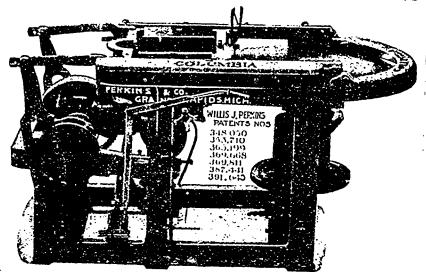
Write for quotations. If once used you will never return to the old malleable sockets.

THE McFARLANE-NEILL MANUFACTURING CO., Limited

ST. MARY'S, YORK COUNTY New Brunswick Hand Feed Machine \$150.00 and over. Double Blockers - - \$550.00 and over. Ten Blockers - . \$1200.00 and over.

-ALSO-

COLUMBIA HEADING AND SHINGLE MACHINES



THEY WERE WELL PLEASED.

PERKINS & CO.

HAMPTON, N. B.

DEAR SIRS: Replying to your favor of 18th inst., Mr. Shives has not called to see the Columbia as yet. Our man is feeding her on the fly now; he don't lose a clip. We are very much pleased with the machine. Yours truly,

THE G. & G. FLEWELLING MANUFACTURING CO.

WE ARE LEADERS. WILL INCREASE YOUR CUT AND SAVE YOUR MONEY. CATALOGUES ON APPLICATION.

Perkins & Co., Grand Rapids, Mich.

BUFFALO, N.Y. 172 Front St. West, Toronto, Ont.

MANUFACTURERS AND DEALERS IN

Wood and Iron Working Machinery

Save your money. Save middlemen's profits. Buy direct from factory. All goods fully guaranteed.

Band Saws Jointers or Buzz Planers Cabinet Planers Surfacers Planers and Matchers Shapers

Turning Lathes Engines and Boilers, all sizes Saw Tables Moulders Saw Mills

MARCH, 1903

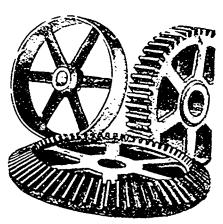
The Wm. Kennedy & Sons, Limited

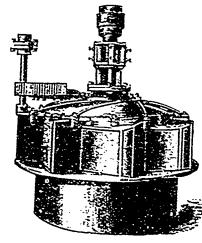
Hydraulic and Mechanical Engineers, &c.

OWEN SOUND, ONT.

Manufacturers of the latest and best

Turbine Water Wheels





Heavy Machine Dressed Gearing, Iron Bridgetrees, Rope or Belt Pulleys, &c., for Mills or Factories. Swing Shingle Machines. Superior Steel Castings. Iron or Steel, Sectional or Solid Propeller Wheels for all purposes.

Goderich Engine Works

Goderich, Ont., Canada. PRED W. DOTY, Man

MANUFACTURERS OF

Marine **ENGINES** and **BOILERS**

High pressure, steeple compound, fore and aft compound, triple expansion

ENGINES

Vertical, Scotch, Fitzgibbon, Fire-Box

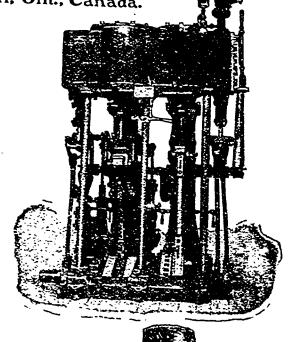
BOILERS

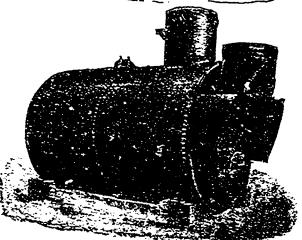
under Government inspection.

Machinery for light draft stern wheel steamers a specialty.

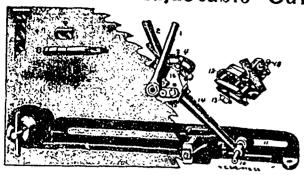
Also wooden hulls for steamers, tugs, yachts, &с.

Send for illustrated catalogue.





Hanchett's Adjustable Saw Swages



The accompanying cut represents our

SWACE AND JOINTER for circular saws.

Without question the best Swaging Machine n existence.

We also make

SWAGES FOR BAND SAWS, GANG SAWS AND BAND RESAWS.

We invite correspondence from Canadian mill operators and supply houses, mentioning this paper.

HANCHETT SWAGE WORKS, Big Rapids, Mich.

REEVES

For Saw or Planing Mill work "The Reeves" Wood Split Pulley is the favorite. A good, strong, durable pulley made honestly and made right.

Reeves Pulley Manufacturing Gompany, Limited

17 PEARL STREET,

GET OUR PRICE LIST

TORONTO, ONT.

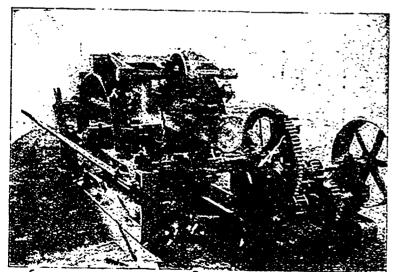
THE BEST IN THE WORLD &

There is no doubt about the fact that the

RODGERS

is without a peer.

This machine will slab opposite sides of a log in one operation at the rate of two



A MONEY MAKER

A MONEY SAVER

HUNDREDS OF LETTERS RECEIVED LIKE THIS:

RODGERS IRON MANUFACTURING CO., Muskegon, Mich. *Rock Island, III Nov 28, 1902 Gentlemen .—Replying to yours of recent date and referring to your adjustable log siding machine, must say it has given us general satisfaction, and we have done good work with it. Anyone desiring a machine of this style for the purpose of slabbing small logs, we would recommend yours.

Respectfully, WEVERHAUSER & DENKMAN

For full particulars and literature, mention this paper and address

RODGERS IRON MFG. CO. MUSKEGON, MICH.

HIGH GRADE

FERNICA TO THE PROPERTY OF THE PARTY OF THE

RUBBER BELTING

'MONARCH" "RED STRIP" AND "LION" BRANDS.

These well known grades of Rubber Belting are used by the principal lumber and saw mills from the Atlantic to the Pacific. Unequalled for durability, tensile strength and power-transmitting qualities

REDSTONE" SHEET PACKING.

The most satisfactory Sheet Packing. Remains flex ible under the highest pressures. Does not blow out or require any following up.

MILL AND FACTORY FIRE HOSE.

Are you sufficiently supplied with Fire Hose, and if so, is it in good condition for immediate use? If not, let us send you a Post Graduate treatise on the subject. We are the largest manufacturers of Fire Hose in

THE GUTTA PERCHA & RUBBER MFG. CO.

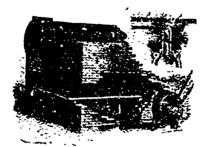
Head Office and Warerooms.
45, 47 and 49 West Front Street TORONTO, CAN.

Branches, Montreal and Winnipeg.

DO YOU LACK STEAM?

WE CAN HELP YOU.

The Gordon Hollow Blast Grate



Makes two boilers do the work of three.

Generates more steam than any other mechanical device in exist-

Cheapest Edgers on Earth! Take up little room, require little power, and do

Why paystwice as much for an edger requiring double the power and floor space, 900 IN DAILY USE.





The TOWER 2 and 3 Saw Edgers, Improved, for mills cutting up to 20,000 ft. in ten hours, and the TOWER EXTRA 3-saw Edger, for mills cutting up to 30,000 ft.



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 ft. in ten

"The TOWER One-man 2-Saw Trimmen is far superior to one we bought eight or ten years ago for twice as much. It has given entire satisfaction.

DISMUKES LUMBER CO.,

-- Manufactured Only by-- .

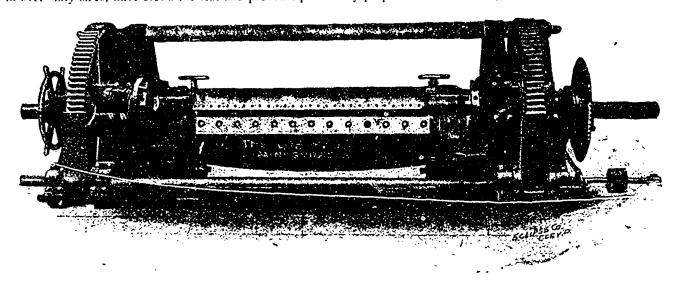
Gordon Hollow Blast Grate Co., GREENVILLE, MICH.

ESTABLISHED 196,

Our Celebrated

Rotary Cutting Veneer Machines

made in over sixty sizes, have stood the test and proved equal to any proposition to reduce logs into thin lumber and veneers.



The product is high grade.

The output is great.

The cost of operating and maintenance is reduced to a minimum.

Quite a combination, is it not?

Timber and mill owners should get in early.

Buy a Coe Veneer Cutting and Drying outfit and prepare to supply thin lumber and veneers which have a healthy growing demand. More money in it than sawing your logs into lumber.

WRITE US

THE GOE MANUFAGTURING GOMPANY, Painesville, Ohio, U. S. A.

Established 1852.

Largest Builders of Veneer Cutting Machinery in the world.

D. M. BUTCHART, PRES.

C. A. FLEMING, Vice-Pres.

JAS. M. WILSON, MAN.

I. TOLTON, TREAS.

OWEN SOUND IRON WORKS COMPANY

LTM:TED

Builders of a complete line of

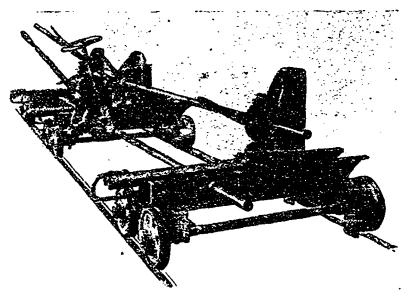
Saw, Shingle and Lath Mill Machinery

-- 11.50- -

Engines

-- ASD --

Boilers



our

Steel Saw Carriages

(10 M. to 100 M. feet capacity per day)

Steam Feeds Double Edgers Swing Shingle Mill, etc.

THE BEST IN THE MARKET

MARINE REPAIRS A SPECIALTY. SEND FOR CATALOGUE.

MOWEN SOUND, ONT.

IMPROVED SWING SHINGLE MAGHINE

The Best Cheap Shingle Machine.

The Cheapest Good Shingle Machine.

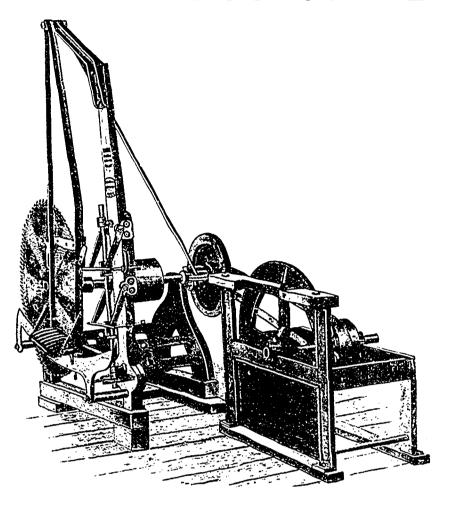
Makes either Shingles or Heading. Has a light and very strong carriage. Easy to work and easy on power.

I make other kinds of Shingle Machines too and can furnish complete outfits for Saw Mills, Shingle Mills and Lath Mills at reduced prices.

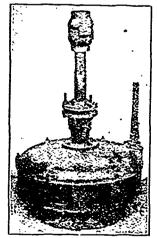
CATALOGUES AND CIRCULARS FREE.

F. J. DRAKE,

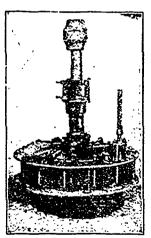
Belleville, - - Ontario.



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 CATA-LOGUES**, 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.

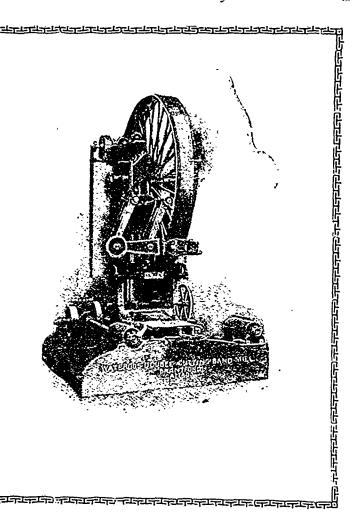
Winnipeg Machinery & Supply Co.
Western Selling Agents, Winnipeg'

From Present Appearances

the Log Cut this Year will be Larger than in 1902

Some Lumbermen State

it will cost 15% more to manufacture their lumber this year than last year, including extra cost of cutting and delivering logs in mill.



What Are You Doing to Economize in Manufacture

to offset this 15 per cent. extra cost? If you are still running the old time Circular Saw a change to a Band Mill with its 14 gauge saw will give you 10 to 15% more lumber out of the same logs.

Thus Saving You in One Year

the entire cost of the change and the extra cost of this year's saw bill.

If You are Running one of our Band Mills Now

you can save this year's extra cost of manufacture by making your band over to a double cutting mill, using our special devices for this purpose.

You Will Increase the Output of Your Band Mill

at least 10,000 feet per day at no extra cost for labor, except the wages of one tail sawyer at log deck.

This Will Help You Out on This Year's Extra Large Log Cut and Save at Least All This Year's Extra Cost of Manutacturing.

The Change is not Expensive.

With Our Patent Devices the Lumber is Cut Perfectly True and the Boards Dropped on either side are exactly the Same Thickness.

No More Trouble to Keep Up Saws or to Run Mill than a Single Catter.

No Difficulty is Experienced in Cutting Defective I imber to the Best Advantage with a Double Cutting Saw.

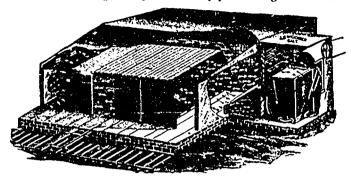
Changing the Single Cutting Band Mill inexpensively to a Double Cutter is one of the Most Progressive Changes in Lumber Making that has occurred for many years.

We shall be pleased to correspond with you on this subject, or in regard to any contemplated changes in your Mill.

WATEROUS, BRANTFORD, CANADA

McEachren Heating & Ventilating Go.

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.



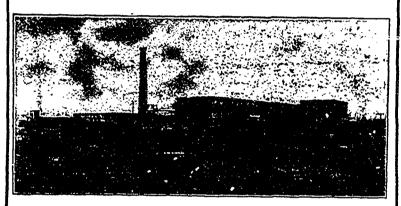
Durabilitu Efficiencu

Simplicitu

E60nomu

THE "A B C" DRY KILNS

Simplicity and Economy of Operation. Perfection of Product.



The Fred Macey Company, Grand Rapids, Mich., write:

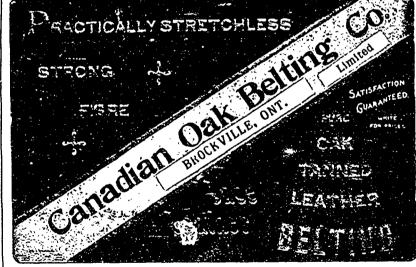
"We have had ample opportunity to test the six 'Moist Air' Dry Kilns which you installed in our plant, and we find them to be entirely satisfactory. Our superintendent reports that they require very little attention, are economical and easily regulated, and the lumber comes out of the kiln in perfert condition to make high grade goods. We might add that our superintendent has had at least thirty years' experience in kilning lumber and he says these are the best he has had the pleasure of operating."

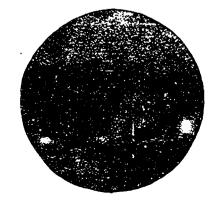
&Catalogue No. 139 L sent on request.

American Blower Gompany, i- Detroit

New York, 141 Broadway. Chicago, 1550 Marquette Building. London, 70 Gracechurch Street.







The Morton Moist Air Dry

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.

Manufacture: No. 149 rue Prince-Edouard, St. Roch.
Bureau: No. 142, rue de l'Elglise.

MISSES. The A. H. Andrews Co., Chicago, Ill.
Gentlemen-Replying to yours of the 28th inst. I am pleased to say the Dry Kiln I purchased of you is giving good satisfaction.
I am drying all kinds of lumber in it, and use exhaust steam in the daw time and live steam at right.

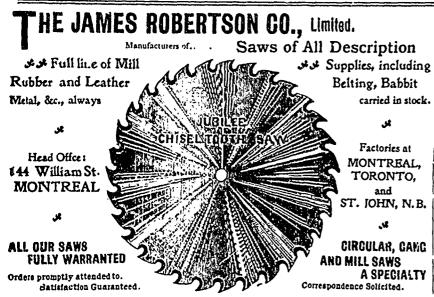
I am well pleased with the Morton Patent Moist Air Down Draft Dry Kiln, and have no hestitation in recommending same.

(Signed) J. H. Gignac.

The A. H. Andrews Co.,

300 Wabash Avenue,

Chicago, Illinois.



RIGE, LEWIS & SON

Limited

Lumbermen's Supplies

S Chain Steel
A Bol's Iron
W Files Horse Shoes

A Peveys Boot Calks
X Pike Poles Lumber Leads
Cam Hooks Timber Grips

ROPE

TORONTO.

Write for Prices



THOMAS PINK Pembroke, Ont.

Send or Catalogue and Price List.

PINK LUMBERING TOOLS

The Standard Tools

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,

Gar Load or Dozen.

Boom Chains, Pike Poles, Skidding Tongs Boat Winches, Etc.

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

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.