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CANADA LUMBERMAN

Wood-Workers', Manufacturers' and Millers' Gazette

VOLUME XXIV.
NUMBER 11.

TORONTO, MONTREAL AND WINNIPEG, CANADA, NOVEMBER, 1904

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FLAME BRAND BELTING**



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MOST DURABLE THE BEST FOR MAIN DRIVES
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Branch
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Some people buy belting on price, others on quality. Which is wisest?

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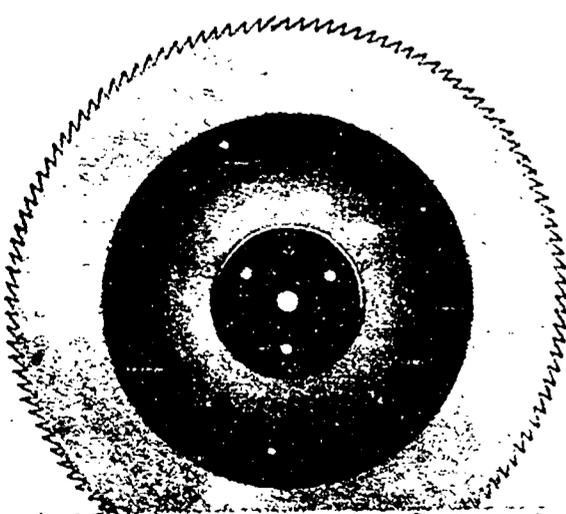
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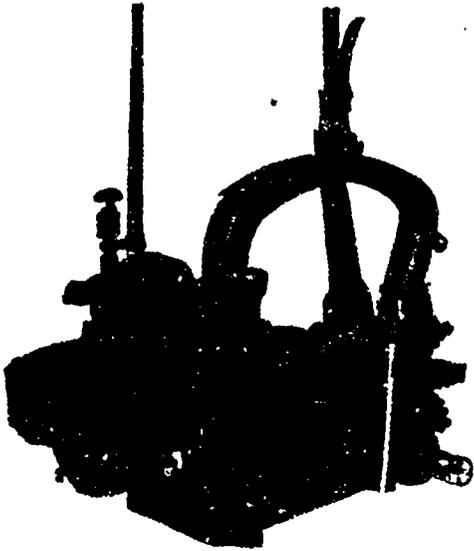
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The Wm. Hamilton Mfg. Co., Limited

Builders of a Complete Line of

SAW MILL MACHINERY



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We have supplied these machines on trial on the understanding that they were to be returned to us if they did not give every result promised.

Not one of them has ever been returned.

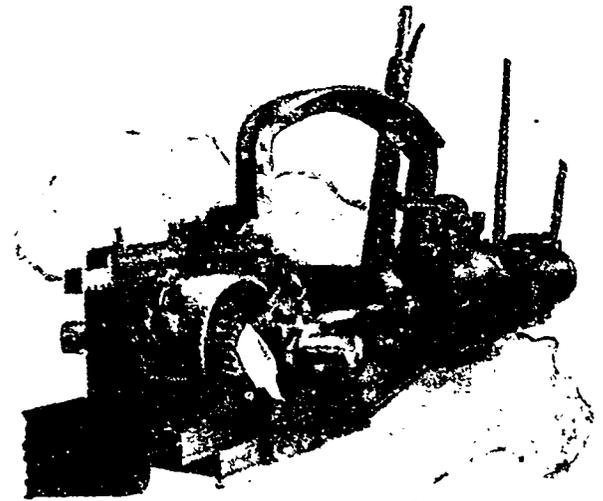
Ask your setter if he could not do better work with one of these machines, then write us for prices and catalogues.

The standard size machine, as shown in cut, is well known to all mill men. Every one in operation is proving daily that you can cut more and better lumber with it.

When deciding on your improvements for next season you must take this machine into consideration.



This cut shows our Steam Set Works for the large blocks in use on the Pacific Coast. It is a very powerful machine, and will set for two-inch lumber as quickly and more easily than the hand lever now sets for one.



Our last illustration shows our

IMPROVED STEAM SETTER

WITH ENCLOSED RATCHET SET WORKS

This is an improved form of the standard machine. We consider it is the most reliable and efficient form of Steam Set Works that exists at the present time.

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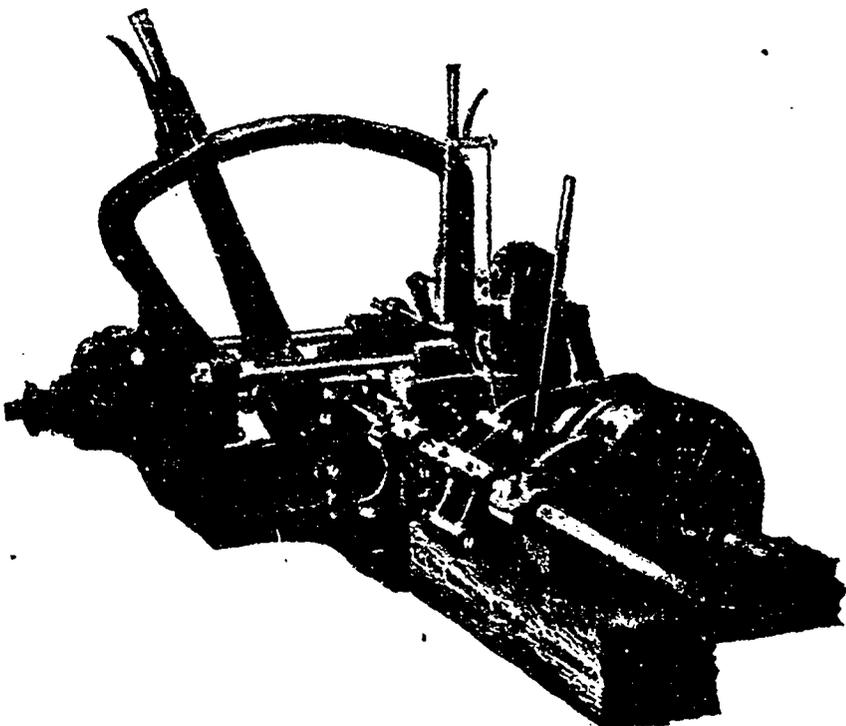
We are anxious to tell you more about any of these machines. Why not send for our catalogue?

Head Office and Works :

Peterborough, Ont.

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Vancouver, B. C.



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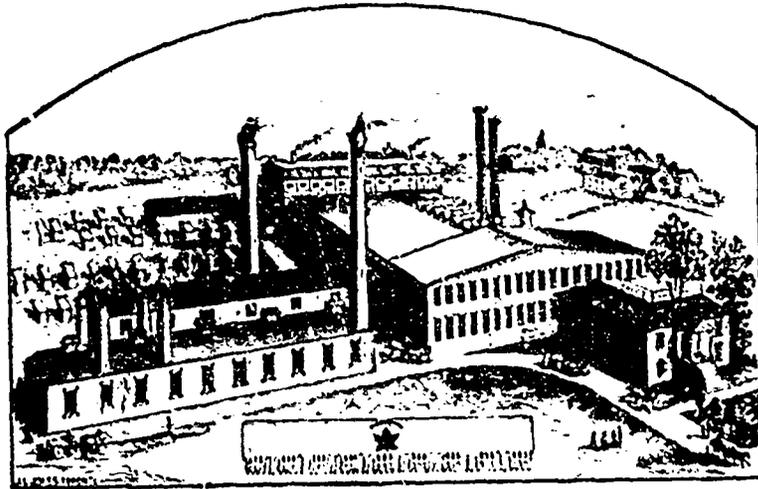
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This Saw Stands Without a Rival

AND IS THE

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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 he steel which no other process can approach.

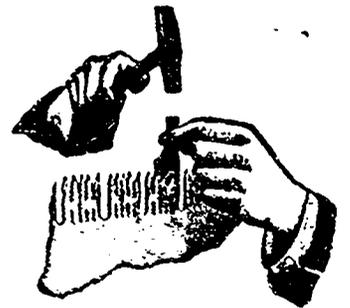
Maple Leaf Saw Set

MANUFACTURED BY

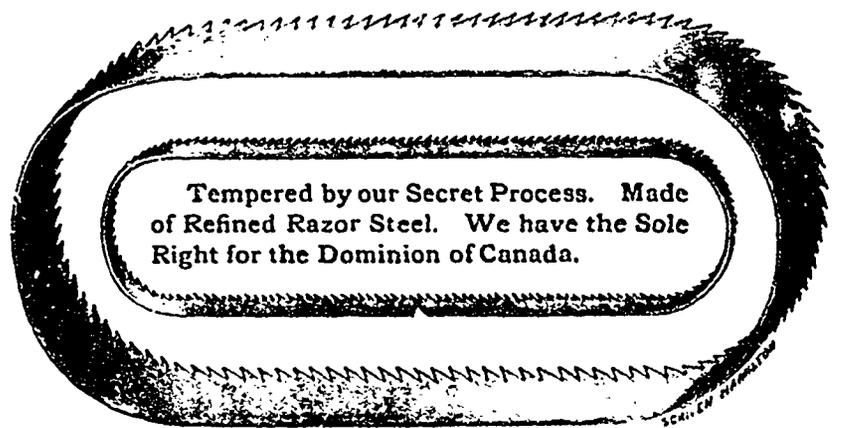
SHURLY & DIETRICH, Galt, Ont.

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

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



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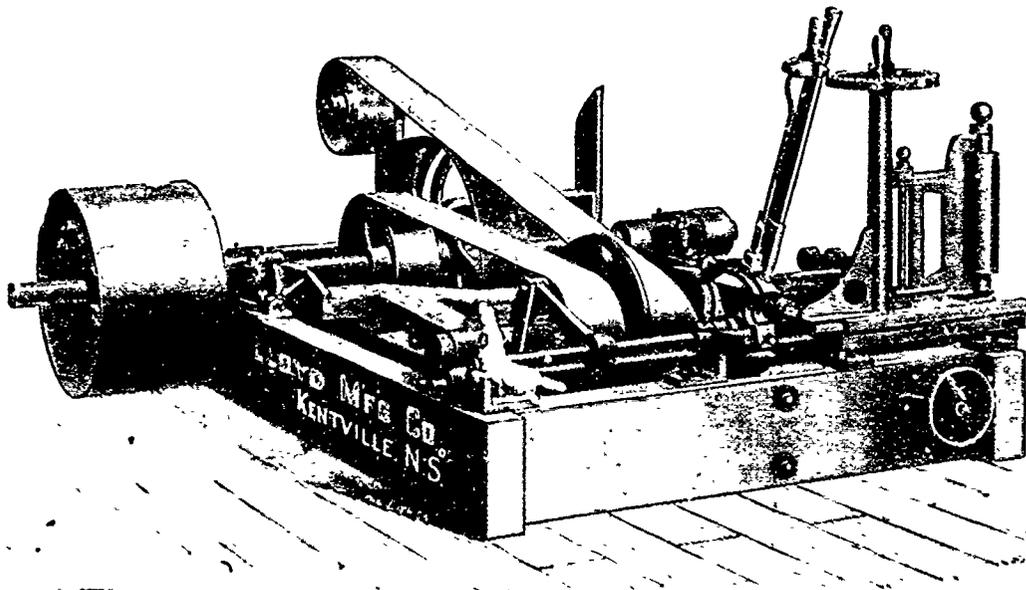
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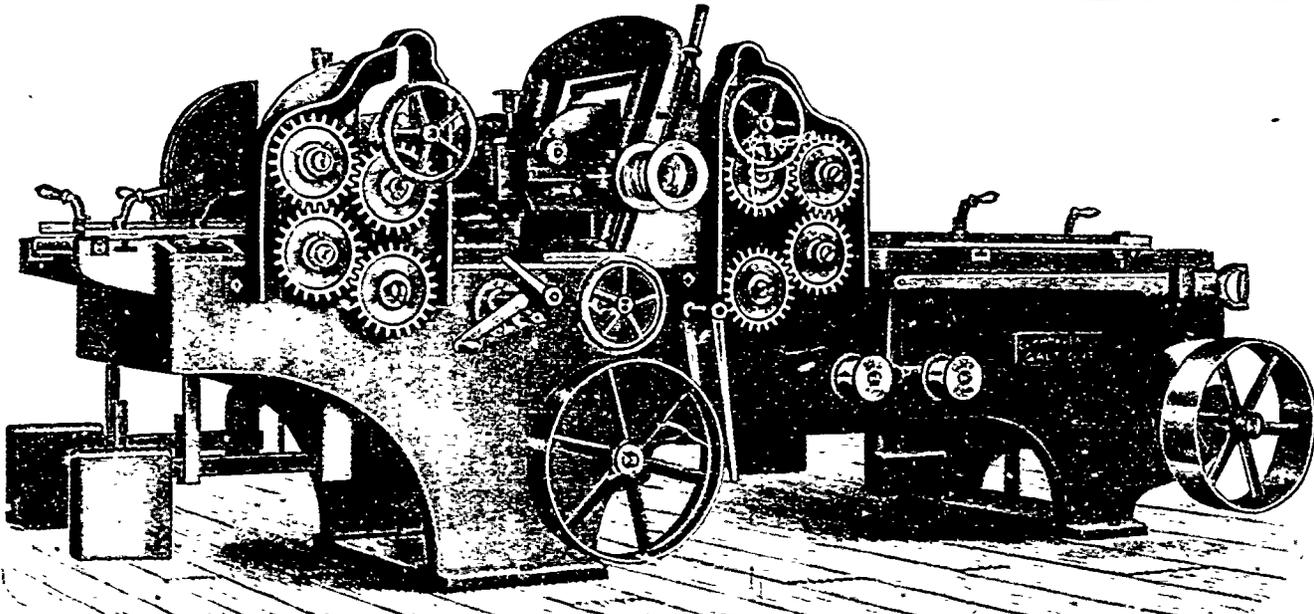
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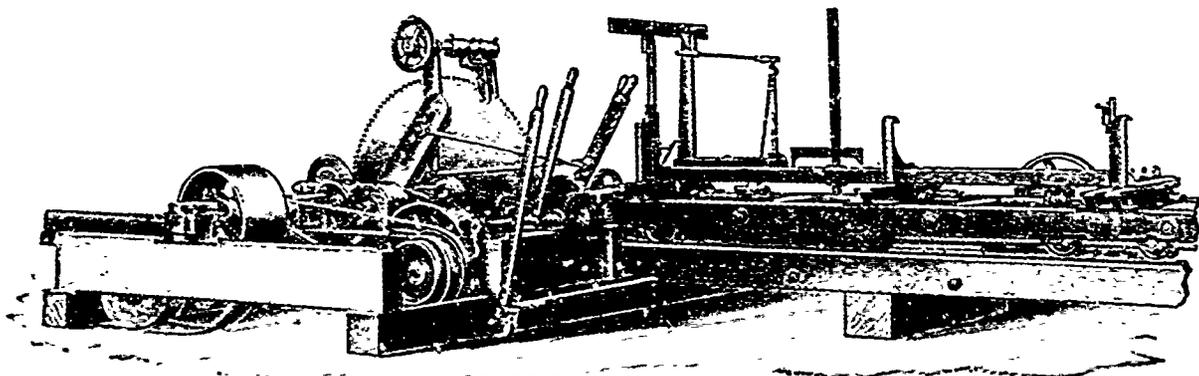
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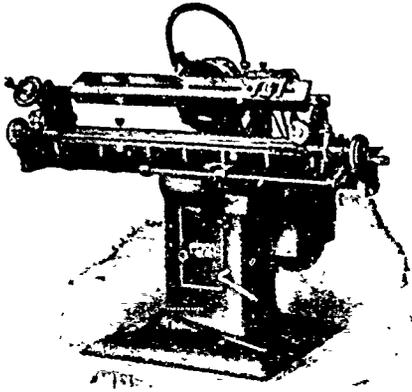
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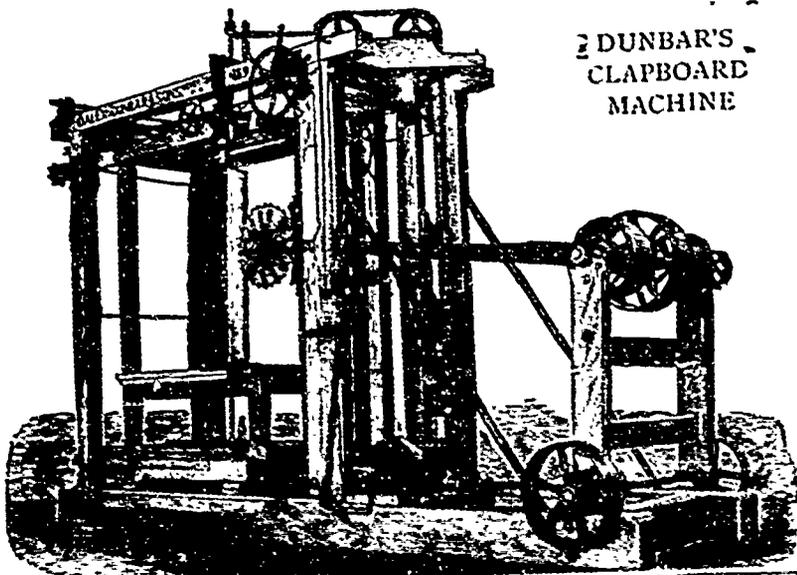
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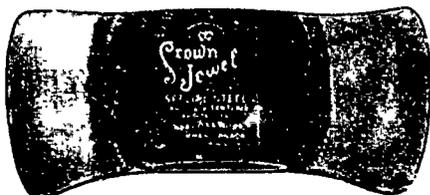
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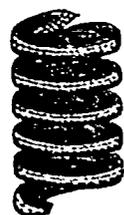
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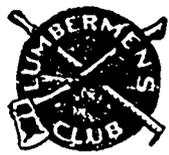
THE CANADA LUMBERMAN

VOLUME XXIV.
NUMBER II.

TORONTO AND MONTREAL, CANADA, NOVEMBER, 1904

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

THE LUMBERMEN'S CLUB OF OTTAWA.



The officials of the Ottawa Valley and Georgian Bay lumber firms have formed an Association in Ottawa, to be called "The Lumbermen's Club." The object is a purely social one to foster a feeling of good fellowship and to afford all members an opportunity of meeting and discussing subjects common to all.

A large club room has been secured and furnished with magazines, newspapers, pool and billiard tables, etc.

The annual meeting will be held during the month of July each year, for the election of officers and transaction of business, when the initiation of candidates will be a prominent feature.

The Club is not exclusive and admits as honorary members business men having transactions directly with the lumber trade. All members are supplied with such names and are recommended to patronize the honorary members as far as possible.

The officers' position in the club corresponds to the same position held by them with their respective firms, as follows:

W. N. Vaughan, Agent,
(Fraser & Co.)

Wm. Burns, Bookkeeper,
(Fraser & Co.)

Thos. Reynolds, Foreman,
(McLachlin Bros.)

Harry W. Link, Culler,
(Hawkesbury Lumber Co.)

D. McLennan, Clerk (St. Anthony Lumber Co.)

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The membership fee is only two dollars per annum, and the Secretary will gladly furnish any desired information to persons who may be desirous of joining the Club.

DOMINION FORESTRY WORK.

Mr. E. Stewart, Dominion Superintendent of Forestry, returned to Ottawa a short time ago from the west, where he had been for three months looking after the work of his department. He reports that the forest rangers have done splendid service. The forest fires in British Columbia and especially along the Crow's Nest Pass, in Western Alberta, have caused a considerable loss, but in the other districts the destruction of timber has not been great. In connection with the system of co-operation with the prairie settlers in grow-

ing forest trees on their homesteads, nearly 2,000,000 trees were sent out to settlers this season. These have up to the present been mostly grown from seed on the experimental farms at Brandon and Indian Head, but it was found advisable to centralize this work at one place, and 100 acres about a mile south of Indian Head Station were selected. Buildings have been erected, about fifty acres got ready for cultivation and considerable seed sown. This will not only permit the Forestry Branch to grow a large number of trees for annual distribution, but will also be a model forest nursery station where experiments can be conducted with all varieties of forest trees

and one-half miles long and has been successfully worked for the last three or four years and is said to be a success.

While both road and rolling stock might be said to be nondescript, they are money savers and money makers. The locomotive or motive power is nothing more than an upright boiler on an improvised car and furnishes steam to a double engine that in like improvised manner is rigged up to operate a double set of drive wheels by the help of cog wheels and endless chains.

The cars for hauling the logs are even more unique, but they work charmingly. Four sets of wheels are rigged up in four frames that en-

close them and a short axle passes from one side of the frame to the other, so that each wheel is held independently of all others. The four frames are held rigid by 12 x 12 timbers fastened to them on top and upon these cross timbers are laid other long 12 x 12 timbers that help make up the framework of the car and hold the logs. The locomotive and the log cars have flanged trucks that run upon a wooden rail made out of logs and embedded in the ground to keep them in place. The trucks under the engine have a play of several inches on the axles to prevent them from leaving the rails when going around curves and for the same reason the trucks under the log cars are built upon the short axles.

The log car is twelve feet wide and twenty average-sized logs are taken out of the woods at each trip, but one car being in use at one time. The "train" makes four trips daily, moving about 25,000 feet in that time. The engine negotiates a "down grade" of 18 per cent. with its load by reversing the steam and the appliance of brakes on the log car operated with block and tackle. The road is now being extended so that some up grades are encountered in taking the logs out to the mill and the assistance of the donkey or yarding engine will have to be called into play to get the loaded car up. The engine is able to take the empty car back over any of the grades so far encountered.

This manner of logging is said to be cheaper than by the use of horses or any of the more modern appliances. Very little steel or iron enters into the construction of the road and the material being nearly all at hand in the woods around, it is simplicity itself and the essence of economy. — Pacific Coast Lumber Trade Journal.



D. McLENNAN, Clerk, (St. Anthony Lumber Co.) ERNEST PITT, Secretary.
WM. BURNS, Book-keeper, (Fraser & Co.) WM. VAUGHAN, Agent, (Fraser & Co.) THOS. REYNOLDS, Foreman, (McLachlin Bros.) HENRY W. LINK, Culler, (Hawkesbury Lumber Co.)
OFFICERS OF THE LUMBERMEN'S CLUB OF OTTAWA.

suited to this northern climate. As the farms of the applicants for trees are all inspected and thorough preparation of soil and care in planting insisted on, these plantations, which are scattered here and there from the Red River to the foothills of the Rocky Mountains, will furnish object lessons on proper methods in this line of work to the people throughout the prairie districts.

The staff of the Forestry Branch consists of the superintendent, assistant superintendent, two other regular assistants, four inspectors of tree planting employed during the summer, and about forty forest fire rangers. The appropriation for the past year was \$40,000.

UNIQUE LOGGING RAILROAD.

The Allen & Nelson Mill Company, whose mill is at Monohan, King County, Wash., operate probably the most unique logging railroad in the country. The road is about two

DR. JUDSON F. CLARK.

The announcement was made in a previous issue that Dr. Clark had been appointed Provincial Forester by the Ontario Government as a member of the staff of the Crown Lands Department. Dr. Clark having now entered upon his duties, we present his portrait and give some particulars of his educational career and forestry experience.

Judson F. Clark, B.S.A., A.M., Ph.D., was born at Bay View, Prince Edward Island, in 1870. After spending a year at Prince of Wales College, Charlottetown, he entered the Ontario Agricultural College at Guelph, where he won the gold medal for general proficiency in 1895, graduating in 1896. The following two years were spent as a member of the teaching staff of the college, after which he entered Cornell University, Ithica, N.Y., for the study of forestry and physiological botany. He received the degree of A.M. and was appointed assistant in botany both in the regular course and the summer school in 1899. The following year he was appointed Fellow in botany, and graduated as Doctor of Philosophy in 1901, when he was at once appointed Professor of Forestry in Cornell, with leave of absence to study forestry in Germany. He resigned from the staff of Cornell on the veto of the annual appropriation for the College of Forestry in 1903 by Governor Odell, and was appointed to a position on the staff of the National Bureau of Forestry at Washington, D.C., which position he resigned to undertake his new duties with the Ontario Government.

When in Germany Dr. Clark devoted most of his time to practical investigations in the forests, but before returning he spent one month visiting the forestry schools for the purpose of becoming acquainted with forestry teachers and of studying their methods of school work. During this month he visited, with one exception, every forestry school in Germany and Switzerland. The curricula of the forestry schools in Germany, he states, is almost entirely theoretical, the student depending for practical training on the experience gained in minor positions after graduating.

While associated with Cornell University, Dr. Clark had charge of the courses in forest measurements, forest mapping, and wood technology, and assisted in the courses in silviculture, forest protection, and forest administration. Three months of each year were devoted to practical forest mapping, timber estimating, and silviculture in the Adirondack Mountains. The work in the mountains affording as it did ample opportunity for practical work and study of actual woods conditions at first hand was, he considered, a very important feature of the school work. The majority of the graduates of this forest school have been employed by the United States Government, either as members of the staff of the National Bureau of Forestry or in the Philippine Forestry Service. A number, however, have been employed by practical lumbermen in connection with the management of their timber lands.

The experience of Dr. Clark while connected with the Bureau of Forestry will no doubt be found of great value to him in his work in Ontario, for the conditions found in the States

in which his investigations were made are in many respects similar to those in this province. The first four months were spent in the White Mountains in New Hampshire investigating a proposition to establish a national park in that region, his duties including a study of the existing stand of timber, its present amount, the rapidity of growth, natural regeneration of timber trees, and the question of protection, especially protection from fire. Some attention was also given to the study of lumbering conditions. Later, he was assigned to the making of preliminary examinations of timber land tracts for which application for working plans had been made to the Bureau of Forestry, and to examine and advise on the management of farmers' wood lots. This work was carried on in the States of Ohio, Michigan, New York, New Jersey, and all the New England States, with the exception of Rhode Island.

By close observation and careful study Dr. Clark has acquired a knowledge of the subject



DR. JUDSON F. CLARK,
Provincial Forester for the Ontario Government.

of forestry which especially fits him for his present position. While possessing the requisite scientific training for the further development of the Provincial forest policy of keeping a valuable crop of trees growing, wherever practical, on non-agricultural lands, he is in the fullest sympathy with the lumbering interests, which he regards as constituting the most important department of any practical system of forestry. We may therefore feel assured that in any modification of policy which he may recommend, the interests of the timber limit owner as well as the public at large will be protected as far as possible.

LOG FREIGHT RATES CONFIRMED.

The United Factories, of Newmarket, applied to the Railway Commission for a reduction in the freight rate charged by the Grand Trunk Railway for carrying logs between Penetanguishene and Newmarket. The rate now charged is four cents per 100 pounds. The application was refused, the Board contending that the old rate of three cents was not profitable to the railway, but a temporary expedient to encourage carriage to the new industry at Newmarket. For the same distance on other portions of the Grand Trunk 7½ cents per 100 pounds is charged, and against this rate no complaint had been made. The Board therefore concluded that the present rate was moderate.

Trade Opportunities

CANADIAN COMMERCIAL AGENTS.**AUSTRALASIA.**

- I. S. Larke, The Exchange, Sydney, agent for New South Wales, Queensland and New Zealand.
D. H. Ross, P. O. Box 140, Melbourne, agent for Victoria, South Australia, Western Australia and Tasmania.

FRANCE.

- A. Poindron, 101 Rue Reaumur, Paris.

GREAT BRITAIN.

- P. B. Ball, 16 Bennett's Hill, Birmingham.
J. B. Jackson, cor. of E. Parade and Greek Street, Leeds, agent for Leeds and Hull.
P. B. MacNamara, 94 Market Street, Manchester.
W. A. MacKinnon, Sun Building, Bristol.

JAPAN.

- Alex. MacLean, No. 14 Bund, Room B, Yokohama.

NORWAY AND SWEDEN.

- C. E. Sontum, Grubbegd, Eo. 4, Christiania, Norway, agent for Denmark also.

SOUTH AFRICA.

- J. G. Jardine, P. O. Box 1232, Cape Town, Cape Colony.

WEST INDIES.

- G. Eustace Burke, Kingston, Jamaica.
R. Bryson, St. John, Antigua, agent for Antigua, Montserrat and Dominica.
S. L. Horsford, St. Kitts, agent for St. Kitts, Nevis and the Virgin Islands.
Edgar Tripp, Port of Spain, Trinidad, agent for Trinidad and Tobago.

HIGH COMMISSIONER'S OFFICE.

- W. L. Griffith, Secretary, 17 Victoria Street, London, S. W., England.

IMPERIAL INSTITUTE.

- Harrison Watson, Curator, Canadian Section, London, Eng.

AUSTRALIAN REPORT.

Mr. D. H. Ross, of Melbourne, Aus., reports to the Department of Trade and Commerce as follows:

CANADIAN TIMBER.—Five ships are now on voyage from Canada to Melbourne—four having sailed from St. John—with cargoes of spruce. Stocks held locally are not very extensive, and fair sales are being made. Further shipments are anticipated before the end of this year, as the building trade is more active in Melbourne than it has been for years past.

DOORS, SASHES AND MOULDINGS.—To a British Columbia manufacturer of doors, etc., has been forwarded full particulars of the local markets. The Commonwealth customs duties are: Mouldings, 84 cents per 100 lineal feet; sashes, 20 per cent. ad valorem; doors, 84 cents, \$1.20 and \$1.30, according to thickness. With freights and duties to contend against there is little prospect of business being done, and then only when the mills are at the port of shipment.

ENQUIRIES RECEIVED.

From the High Commissioner of Canada, London, England: (1) A London firm wish to hear from a few reliable manufacturers in Canada of pure maple dowels, rounded and smooth, 32, 34 and 36 inches long and 7-16th to 14-16th inch diameter. (2) Inquiry is made by a London firm for names of good, reliable makers in Canada of oak panelling and similar goods.

From P. B. Ball, Birmingham, England: A commission agent in the Midlands wishes to take up an agency for window frames, doors, &c.

From P. B. McNamara, Manchester, England: A Manchester firm doing a large trade throughout England desires prices c.i.f. Manchester from Canadian firms making clothes-pins, towel-rollers, doors and flooring.

From Curator, Canadian Section, Imperial Institute, London, England: A company in Glasgow is in the market for a quantity of lumber in the log (elm suggested) suitable for bands and handles of cheap fruit baskets. Cutting to be done with a rotary veneer cutting machine from about one-eighth (1/8) inch thick.

By the Department of Trade and Commerce, Ottawa: A firm of timber merchants in Leeds, England, desire the names of Canadian manufacturers of three, five and seven ply wood.

The names of the firms making the above inquiries, with their addresses, can be obtained upon application to the Superintendent of Commercial Agencies, Department of Trade and Commerce, Ottawa.

CAPACITY OF PORTABLE SAW MILLS.

In the Wood-Worker E. L. Mason tells of an 8-h.p. mill turning out from 4,000 to 6,000 feet per day with two men, a sawyer and fireman, the sawyer turning and placing his own logs and the fireman doing the off-bearing. Concerning this a correspondent says: Mr. Mason may have been informed by some one that the mill in question did this amount of work, and believed every word of it. We often hear of how much lumber a certain mill can cut in a day. No matter what owner or sawyer you may ask the question, he will undoubtedly give you his best day's run, never referring to the poor ones. But under the most favorable circumstances, with selected logs, etc., there is not a sawyer (Mr. Mason included) who would undertake to do this amount of work with an 8-h.p. engine and one man to assist him.

I have spoken to several sawyers about this, and they all think Mr. Mason should cut one cipher from his figures; they could believe the rest. If Mr. Mason's sawyer can do what he claims, I am willing to send a certified check to the editor of this paper, for any reasonable amount, he duplicating it, for all mill men in this section are willing to take all bets of this kind at any time. We will allow his expenses to New Jersey from anywhere. He can travel in a pullman and bring his valet with him, and live retired if he can make good his claims.

How much lumber to each h.p. will a circular saw mill cut? This is a question often asked mill men and the manufacturers of saw mills. The manufacturer will generally tell you a 10-h.p. engine ought to saw from 3,000 to 5,000 feet per day. Mills from 30 to 40-h.p. ought to run 1,000 feet to each h.p., and mills of larger power ought to run more than 1,000 feet to each h.p., as the friction is proportionately less in large mills than in small ones. The power required to keep up the momentum of a small mill, we will say, for instance, 10-h.p., and that required for one of 20-h.p., would be in proportion to their size and weight, but the leverage or friction of the saw while in the log would be nearly the same on each mill while running at the same speed, and while the larger mill would stand additional feed, the advantage would be all in the large one's favor. The 20-h.p. mill should cut twice the amount of lumber per day as a 10-h.p. mill will cut. But this rule of proportion dare not be carried beyond a certain limit, the reason being that the 10-h.p. mill is altogether too small for saw mill purposes and will not stand enough feed in large logs, or even medium ones, to keep from heating the saw, causing loss of time and very often poor lumber.

I refer only to the capacity of mills without edgers, etc., where the sawyer is obliged to cut everything to size, and not simply take off the slabs, the edger and resaws doing the rest. There is one point the manufacturer overlooks, and that is, how much longer time does it take to place and turn a log on a 20-h.p. mill than to do the same labor on a mill of 30 or 40-h.p.? The labor is one and the same, no matter how great or small your power may be, where the labor is done by hand. The time

consumed in placing logs on mill, turning, gidding back and setting out for the next cut far exceeds the time saw is in the log, which is the only time much power is needed.

As an illustration, the other day we placed and cut a 12-foot log which cut 172 feet of lumber. The saw was in the log 139 seconds out of 12 minutes' total time consumed. Taking only the time the saw was in the log, this engine of 20-h.p. cut 1,237 feet per second, or 44,532 feet for ten hours' work. Taking total time consumed (12 minutes), would bring this down to 8,600 feet for ten hours. Now, if a 40-h. p. mill would stand twice the amount of feed, we would save one-half of 139 seconds, or 69½ seconds, or about one hours' work per day, which would mean, with the larger mill, about 900 feet more lumber. This log cut easily. I do not wish to convey the impression that our mill would cut 8,600 feet each day, though it

would it all logs were alike and sawed into the same sizes, no doubt. Other observations taken on this subject will be continued in next issue.

CONTRIBUTIONS INVITED.

The publishers of this journal will be glad to receive at all times contributions on any subjects affecting the lumber trade, such as the method of operating saw and planing mills, arrangement of machinery, best method of piling lumber, or any other practical question of interest. Such contributions will be appreciated and will assist in making the journal of greater value to its subscribers.

The will of the late Alexander Lumsden, ex-M. L. A., lumberman and steamboat owner, of Ottawa, has been probated. The value of the estate is placed at \$935,042. It is made up as follows: Ontario real estate, \$41,175; personal estate, \$484,918.44; Quebec real estate, \$408,947.26.

IMPORTS OF FOREST PRODUCTS

The following table shows the value of the products of the forest imported free of duty into Canada from the United States during the months of March, April, May, June, July and August, 1904. The table is compiled from the unrevised monthly statements of imports and exports issued by the Department of Trade and Commerce:

Class of Timber.	March. Value.	April. Value.	May. Value.	June. Value.	July. Value.	August. Value.
Sawed or split boards, planks, deals, &c.	\$207,405	\$260,904	\$236,800	\$388,904	\$207,681	\$300,349
Logs and round unmanufactured timber.	29,804	11,062	17,885	84,487	46,185	58,376
Timber, hewn or sawed, square or sided	6,489	29,977	11,705	46,005	25,019	42,706
Cherry, chestnut, hickory & white wood	45,861	42,633	55,501	48,625	35,482	33,258
Oak	122,823	137,252	125,926	164,382	129,177	107,143
Pitch pine	14,887	19,562	29,745	69,401	7,995	10,387
Mahogany	4,342	15,259	5,885	6,840	1,480	2,528
White ash	15,279	9,770	14,469	10,155	4,330	8,948
Walnut	2,855	9,259	4,161	4,616	1,904	4,290
Spanish cedar	322	313	317	.....	.....	.....
African teak	1,498	316	139	586	593	1,730
Pine and spruce clapboards	1,651	747	361	18	1,264	771
Laths	3,335	7,379	4,825	10,139	3,300	1,899
Shingles	1,621	3,058	693	976	1,585	777
Staves	16,502	8,013	15,011	8,465	8,384	9,433
Shovel handles	6,520	2,209	2,668	7,370	2,178	3,054
Felloe of hickory, rough sawn to shape	1,936	2,560	4,412	2,834	3,380	4,582
Handle, heading, stave and shingle bolts	4,156	1,526	4,291	381	4,404	2,808
Hickory billets	555	79	110	979	597	.....
Hickory for spokes of wheels	390	253	244	70	.....	107
Hickory spks, rough turned	27,279	29,860	18,027	22,144	12,582	12,470
Hubs for wheels, posts, last blocks, etc.	4,219	2,596	3,287	4,138	1,738	3,288
Fence posts and railroad ties	4,346	13,572	8,830	28,693	24,851	28,839
Total	\$524,265	\$601,169	\$625,382	\$910,214	\$584,101	\$638,743

EXPORTS OF FOREST PRODUCTS

The following table shows the value of the products of the forest exported from Canada to the United States during the months of March, April, May, June, July and August, 1904. The table is compiled from the unrevised monthly statements of imports and exports issued by the Department of Trade and Commerce:

Class of Timber.	March. Value.	April. Value.	May. Value.	June. Value.	July. Value.	August. Value.
Planks and boards	\$205,830	\$347,191	\$523,991	\$1,572,224	\$747,815	\$1,061,356
Basswood lumber	332	736	425	1,896	352	3,140
Pine deals	237	1,338	7,890	7,508	19,250	39,923
Spruce and other lumber	.....	12,676	7,819	15,227	13,163	33,491
Laths	28,391	29,857	54,830	135,431	1,337	92,163
Pickets	238	341	6,215	18,586	8,259	12,290
Scantling	3,387	1,698	16,230	16,267	14,919	15,754
Shingles	75,478	136,429	153,137	252,697	126,302	134,858
Shooks	1,605	379	6,943	7,250	5,523	4,060
Staves and headings	4,217	4,250	8,382	12,840	19,336	15,332
Telegraph and other posts	1,155	4,924	1,990	6,205	5,300	3,653
Cedar and tamarac posts	.....	1,397	2,262	7,856	1,122	1,543
Shingle bolts	500	138	350	180	21	60
Sleepers and railroad ties	5,816	12,493	14,327	34,499	19,195	15,580
Stave bolts	701	113	163	950	320	519
White pine timber	574	.....	.....	25	255	472
All other square timber	431	597	205	808	209	2,050
Palp wood	117,229	142,204	163,225	277,531	201,862	323,409
Lumber not elsewhere specified	3,480	5,783	14,195	17,808	11,235	9,777
Cedar logs	90	.....	700	4,920	249	480
Elm logs	24	379	70	1,115	1,494	500
Hemlock logs	576	48	15,497	1,743	630	.....
Spruce logs	2,792	2,958	33,221	59,7	3,914	6,237
All other logs	16,662	10,129	30,747	63,399	18,548	37,476
Total	\$469,585	\$716,305	\$1,062,004	\$2,162,599	\$1,280,613	\$1,805,103

BRITISH COLUMBIA SAW MILLS

Photographed and Described by Our Travelling Representative.

THE FAST KOOTENAY LUMBER COMPANY.

The East Kootenay Lumber Company is a combination of three concerns, the Park Mitchell, operating on Moyie Lake; the Cranbrook Lumber Company, operating at Cranbrook and Palmer Bar, six miles west; and the McNab Lumber Company, operating at Jaffray. In 1902 these companies were amalgamated

capacity of 40,000 feet of lumber per day.

The entire output of the four mills is marketed in Manitoba and the North-West Territories, the company doing a very large business in railroad ties with the C.P.R., having the contract for supplying the entire prairie section of that company's lines. It is estimated they are among the largest railroad tie manufactur-

shrewdness of management they have surrounded themselves with energetic and capable employees who are as proud of the growth of the institution and as solicitous for its continued prosperity as they are themselves. Both are experienced lumbermen and take a prominent part in the affairs of the British Columbia Mountain Lumbermen's Association, whose headquarters are in Cranbrook.

W. C. WELLS.

Situated at Palliser, at the foot of the Rockies, twelve miles east of Golden, on a level park-like expanse of greensward in the valley of the roaring Kicking Horse, lies the neat little mill owned by W. C. Wells, late member of the Provincial Cabinet at Victoria. All around are lofty snow-clad peaks, which coupled with the surpassing loveliness of the valley and the rush of the sparkling waters of the swift-flowing river, cannot fail to cause the traveller to pause, lost in wonder and amazement.

The plant consists of a saw and planing mill erected in the year 1886, just after the passing through of the Canadian Pacific Railway. It was at first only intended to run on a small scale for the purpose of cutting and marketing the surrounding limits, but since the great Northwest began to grow in population with such rapid strides, the demands made upon the output, both on account of the excellence of the lumber and the nearness to the market, have been so great as to necessitate a vast increase in the capacity, so that today the visitor finds a fair-sized mill with an output of 50,000 feet per day. It is equipped with the most modern machinery and all the known specialties of the day.

On account of the dryness of the atmosphere it has not been found necessary to erect a dry kiln, the lumber being piled in the yards and rapidly dried by the scorching rays of the hot sun.



EAST KOOTENAY LUMBER COMPANY'S MILL AT CRANBROOK, B. C.

under the name of the East Kootenay Lumber Company, with headquarters at Cranbrook. The mills operated by this company have a combined capacity of over 42,000,000 feet annually and constitute one of the largest lumber plants in the East Kootenay section of British Columbia. The company own in their own right over 40,000 acres of fine tamarac, pine and fir, while they have a ten year lease on 175,000 acres of C.P.R. lands. All their limits are located on the Moyie and Kootenay rivers.

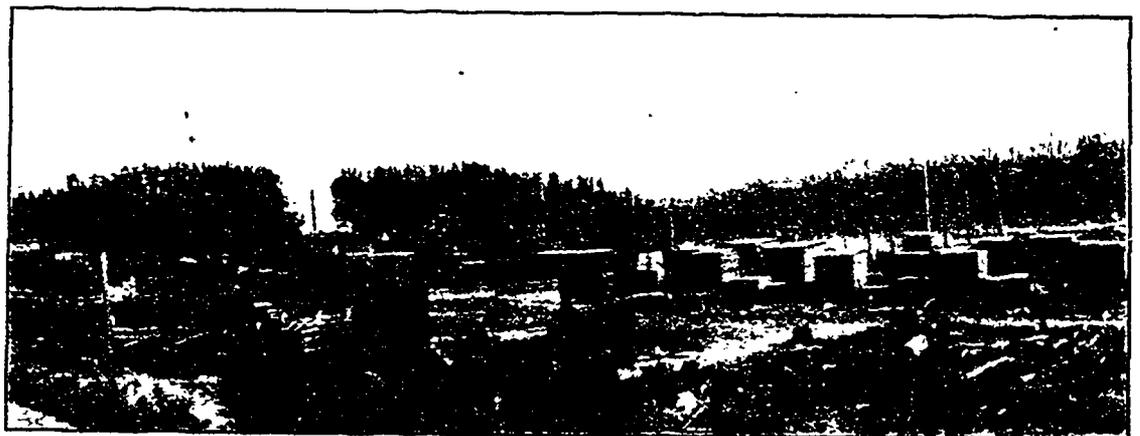
The Park Mitchell mill occupies a site of fifteen acres on the Moyie river at Ryan, thirty miles west of Cranbrook, the main line of the Crows Nest Pass Railroad running right through it. The plant consists of a saw mill, tie mill and planing mill. The main building is 45 x 120 feet and is equipped with the latest improved machinery, including circular, twin saw for ties, bevel edgers, trimmer, slash table and two planers. Power is supplied by two 60" x 16' Leonard boilers and one 20 x 24 Hamilton engine, while a dynamo and engine provide light for the mill and yard. The capacity is 50,000 feet of lumber on the circular side and 2,000 ties per day.

The Palmer Bar mill, one of the Cranbrook Lumber Company's properties, is a small portable mill with a capacity of 15,000 feet per day.

The Cranbrook mill is situated on a site of ten acres adjoining the tracks of the Crows Nest Pass Railroad at Cranbrook. It is a circular mill with a capacity of 35,000 feet of lumber daily.

The Jaffray mill occupies a site of twenty acres, one and a half miles west of Jaffray depot, on the Crows Nest Road. It too is a circular mill equipped with the most modern machinery and possessing a manufacturing

ers in the Dominion. Some idea will be gained by the reader of the vastness of the shipments of ties for the C.P.R. last year when it is known that it took 250 train loads, consisting of 16 cars to the train, to carry them to their destination on the prairies. The excellence of the company's product is so well known and so vast has become the increase in the demand for their lumber that they are now considering the advisability of further extensions. Visitors are always welcome to inspect the company's various plants and they will find much to ad-



EAST KOOTENAY LUMBER COMPANY'S MILL AT JAFFRAY, B. C.

mire in the bright and spacious offices, the clean, airy stables and the neat and well-kept appearance of the different plants.

The company has been particularly fortunate in securing for its management Mr. A. Leach as president and Mr. W. Colpman as manager. They are both particularly energetic and capable business men and are favorably known as men of sterling qualities, securing for them the esteem and respect of Cranbrook and the entire Kootenay country. As evidence of their

Mr. Wells owns 10,000 acres of fir, cedar and spruce, the cut of which is driven to the mill after a course of fifteen miles down the Beaverfoot and Kicking Horse Rivers. His dimensions, boards, ship lap, flooring, ceiling, siding and mouldings are in great favor all through the Territories and Manitoba, where the entire output is marketed.

Despite the depressed condition of the trade generally in the Province, the demands made upon the mill have become so vast during the

past few months that Mr. Wells has finally decided to double the capacity of the mill by putting in a large gang saw, additional planers and one boiler to increase the power. He purposes spending about \$12,000.

Mr. Wells is well-known in public as well as lumber circles, having represented the Golden district for the last six years in the Provincial House and being elected to the

THE ABBOTSFORD LUMBER COMPANY.

The above company's mill is situated on the Sumas branch of the Canadian Pacific Railway, in the centre of the big tree district and three miles from the boundary of the State of Washington. Trains leave Vancouver every morning at 9 p. m. for Seattle, leaving the main line at Mission Junction and passing right through the centre of the company's pro-

Smith & Johnson, it was taken over by a joint stock company in the early part of this year. Vast improvements have been added since, the dry kiln having been built, another engine installed in the boiler house, and a top saw and edger added to the equipment of the mill machinery.

All three directors are experienced lumbermen, Mr. Cook being the former manager of the Whatcom branch of the Hastings Shingle Mill Company.

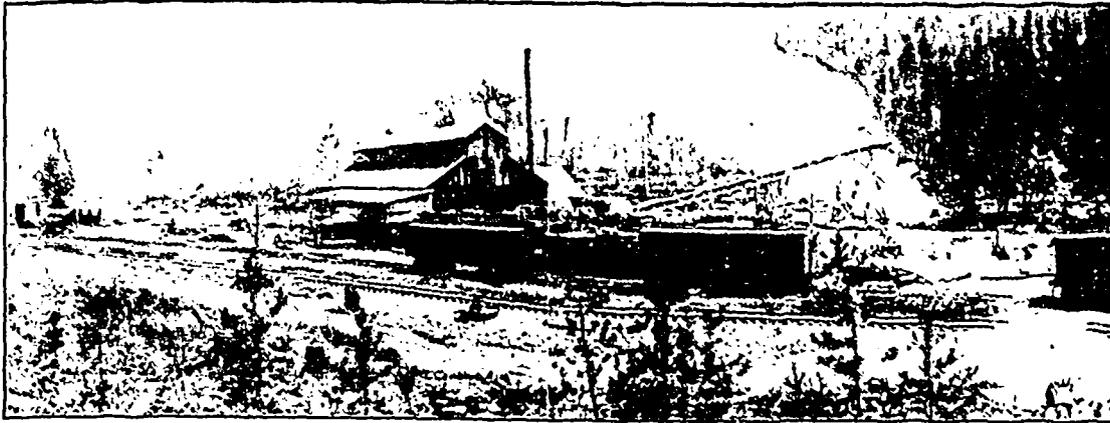
JOSEPH CHEW'S SHINGLE MILL.

In Vancouver there are several large mills turning out red cedar shingles by the million yearly, and among these is that owned and operated by Joseph Chew and established four years ago. His well and modernly equipped plant is located at the foot of Cambie street, on False Creek, occupying nearly 300 feet of water front and being bounded in the rear by the C. P. R. tracks, affording it unsurpassed shipping facilities.

Mr. Chew owns 7,000 acres of red cedar, fir and spruce, the manufactured product finding a ready market in all the provinces, while large stocks are shipped yearly to Australia. He estimates his output at 100,000 a day and from 25 to 30 million yearly, over 13 million of this going to Ontario.

The main building is 32 x 75 feet and is equipped with two Boss machines manufactured by B. R. Mowry & Son, of Gravenhurst, Ont., while Letson & Burpee recently installed two Dunbar machines.

The boiler house, 40 x 30 feet, stands away



EAST KOOTENAY LUMBER COMPANY'S MILL AT RYAN, B. C.

Cabinet during three successful administrations. During the past few years he has allowed his son, Mr. Geo. P. Wells, to manage the more active part of the business. That George, as he is popularly known by the surrounding inhabitants, has succeeded in keeping up the high standard of excellence set by his father, is strong evidence of the sterling qualities he possesses. He is ably assisted by Mr. W. A. Anstie as secretary and book-keeper.

perty. All the way from the junction down to the mill one can get a pretty good idea of the class of lumber that Messrs. Cook, Johnson & Craig handle by enormous stumps standing near the railway.

The company possess almost 4,000 acres of such timber, which is mostly fir, and with such an asset to draw upon they have made use of the opportunity to manufacture heavy bridge timber, their product being in great favor

THE GREAT NORTHERN LUMBER COMPANY.

The above company was organized in December, 1903, in Vancouver, with W. D. S. Rorison as president, R. D. Rorison as manager and Wm. M. Loree as vice-president. With ample capital to work with they purchased the mill, logging outfit and timber limits of A. D. Bell, the mill being situated on False Creek and possessing first-class transportation facilities both by rail and water.

The mill as it stands at present is 22 feet long by 80 feet broad and possesses a capacity of 10,000 feet per day of ten hours. This output, however, is much too small to satisfy the enterprising gentlemen at the head of affairs, they already having contracts out for a new mill which is to be 40 feet by 100 feet and equipped with thoroughly modern machinery. A large dry kiln, 20 feet broad by 120 feet long, is also to be constructed for the purpose of storing the lumber as it is manufactured. The capacity of the mill when completed will be 20,000 feet per day of ten hours.

Unlike any other mill in British Columbia, the motive power is derived from an 80 horsepower electric motor, the current being carried along the wires of the Vancouver Power Company from Lake Beautiful. The company market nearly all of their lumber in the eastern markets—Ontario, Manitoba and the North-West.

The wood-working plant of the Sydney Manufacturing Company, Limited, of Sydney, N.S., is offered for sale.



SAW MILL OF THE ABBOTSFORD LUMBER COMPANY. ABBOTSFORD, B. C.

throughout Manitoba, the Territories and the East.

The plant consists of a saw mill, planing mill, dry kiln and storing and loading sheds. The saw mill is 120 x 35 feet and is equipped with carriage, top and bottom saw, three saw edgers, trimmers and one planer. Driving power is obtained from one boiler 60' x 16 feet and two Waterous engines. The capacity is 20,000 feet per day.

Constructed in 1902 and owned by Messrs.

from the mill and is constructed of non-combustible material, while it is equipped with one large boiler of 100 h. p. and one engine.

A new dry kiln 20 x 100 feet is one of the latest additions to this thoroughly up to date mill.

How accommodating are our English cousins. When we need all of our spruce lumber here at home they considerably withdraw from the market and let us have it.—Lumbermen's Review, New York.

THE Canada Lumberman

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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.

Special pains are taken to secure for publication in the WEEKLY LUMBERMAN the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations. Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, wood-working factories, pulp mills, etc., the CANADA LUMBERMAN is undoubtedly the cheapest and most profitable advertising medium. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which are inserted in a conspicuous position on front page of the Weekly Edition.

CURTAILMENT A WISE POLICY.

It is only natural that a manufacturer of lumber should endeavor to secure a return as large as possible from his invested capital. If he did not aim at so doing, he would be neglecting the essential point for which all business exists. The methods adopted to obtain the most remunerative results are in some instances questionable, and perhaps the most common mistake is the idea that a mill must at all times be operated to its maximum capacity. Quality is too often made subordinate to quantity, with the result that much badly sawn lumber is put upon the market and the producer realizes a smaller sum for his raw material in manufactured condition than if the same material had been carefully sawn.

Granting that the quality of the lumber can be maintained when the mill is operated to its utmost, it does not follow that a restriction of the output is not often a wise policy to be pursued. The manufacturer who adopts such a course will seldom be found with heavy stocks which he cannot dispose of, nor is he likely to feel the effects of the periodical depressions in the trade as keenly as his confrere who has been forcing the capacity of his mill. He may not make as much money in times of abnormal prosperity, but at all other times the financial balance is likely to be in his favor. His policy will sustain the stability of the market for a longer period, while at the same time conserving his timber supply.

The British lumber market, which has been in a depressed condition this year, would probably have weakened to a much greater extent but for the policy of curtailment which has been adopted by the exporting countries. Holders of lumber have thus been assured that no large surplus stocks would be dumped upon the market next year, and have therefore been

encouraged to sustain prices. Canadian manufacturers have been among the leaders in this movement and are to be strongly commended for their action. If we might offer a word of advice, it would be that they adhere strictly to their agreements and curtail the production of logs as much as possible. In this respect they cannot be too sincere for the good of the trade.

Unfortunately, the situation in British Columbia has not improved, and the solution would seem to lie in limiting the production and in co-operative effort towards the regulation of the future output. The closing down of all the mills for a brief period at least would probably be a wise step.

THE DEALER A NECESSITY.

The dealer in lumber—whether wholesale or retail—is not as a rule given as much credit for his work as he is entitled to. That his position has been improved as compared with earlier days is quite true, but there is still a disposition to regard him as existing in some measure for the purpose of usurping the profits which would otherwise go to the manufacturer. This is far from the real facts, and the sooner the idea is entirely dispelled the sooner will the relations between buyers and sellers of lumber become more harmonious and the business proceed along more natural lines.

The dealer is a very necessary agent between the manufacturer and the consumer, and, if given opportunity, is likely to be of assistance to both. It may be possible for the manufacturer to do a successful business by selling direct to the consumer, but his annual inventory is likely to show heavy losses by reason of extending credit to persons of whose standing he had little or no knowledge, and it is very doubtful that a lumber business could be conducted on a strictly cash basis.

In addition to seeking to develop new markets for the mill product, the dealer assumes the position of financial guarantor to the manufacturer. He pays the manufacturer cash in, say, sixty days, whereas he may be obliged to carry the consumer's account for six months or a year. The manufacturer is therefore able to do business on a smaller capital than if he were extending credit to a large number of customers. Besides, the dealer is acquainted with local conditions in a manner that the manufacturer could not possibly be, and, knowing the doubtful accounts, will exert his best efforts to prevent loss.

It is true that a dealer may become involved and a loss be thus incurred by the manufacturer, but with the number of his customers circumscribed the danger is greatly minimized.

It is not easy to indicate the line which should mark the legitimate field of the dealer. This has been under discussion for some years in the United States and has not yet been satisfactorily settled, but there is a growing disposition there to protect the dealer as far as possible, experience having proven that nothing is gained by passing him by.

The withdrawal of the Mountain Lumber Manufacturers' Association of British Columbia from the honorary membership list of the

Western Retail Lumbermen's Association was followed by rumors that the manufacturers had decided to ignore the retailers as a body and sell direct to consumers. The difficulties which such a plan would involve are very apparent, especially when it is considered that the settlement of the North-West is of recent development and that new comers are daily being added to the list of lumber consumers. It is therefore very satisfying to be assured by the Secretary of the Mountain Manufacturers' Association that the rule generally recognized throughout all manufacturing industries in Canada, to sell to the trade only unless perhaps in some exceptional cases, will still be observed.

ADVANCE OF THE MUTUAL INSURANCE MOVEMENT.

The decision of the Canadian Manufacturers' Association to establish a fire insurance department covering mercantile risks is but an outcome of the growth of popular sentiment in favor of mutual insurance. The Canadian insurance companies having made a material advance in their rates, and this additional expense having borne heavily upon the manufacturers, a committee was appointed to make an exhaustive investigation into the causes for such increase and to suggest some means of securing relief. The finding of this committee, in the opinion of the members of the Association, warranted the organization of an insurance department, which is now in process of formation.

The investigations of the committee seem to show that the old line companies are doing a profitable business notwithstanding that they are operating under excessive fixed charges. The premiums on fire insurance in Canada have been steadily increasing and are now very high. The average rate on all policies written by the companies doing business in 1898 was 1.26 per cent., and in that year 34.91 per cent. of the premiums was distributed for expenses of management, reserve fund and dividends. In 1902 the rate of premium had increased to 1.47 per cent., and 61.74 per cent. of the premiums went for the purposes above named. For thirty-four years the companies collected in premiums \$62,250,192 more than they returned in losses, which amount is 32.5 per cent. of their total premium income. For the last eight years the percentage was 36.34 per cent.

The figures obtained by the committee do not show that insurance in Canada has been unprofitable, as in 1902 the dividends of the ten companies doing the largest business ranged from 5.9 per cent. to 90 per cent. on the paid-up capital, the average dividend paid by these companies being 26.43 per cent.

The weakest point in the methods employed by the regular companies is stated to be their system of inspection, which is little more than a name. The person with a good risk is compelled to help pay for his neighbor with a poor one, which is doubtless a very wrong policy, as it does not encourage as it should the protection of property.

The Association will endeavor to have each

risk stand on its own merits and will collect the premiums on the basis of scientific inspection. It is proposed to eliminate commissions reduce expenses and return profits to policy holders, and the basis of fixing premiums is intended to offer every encouragement to the insuring public to protect their own property.

Some lumber manufacturers who are members of the association will probably take advantage of the facilities thus offered, although the lumber mutual insurance companies are doing a great deal in the way of providing equitable insurance on lumbering property. The success of these companies in the United States has been little less than phenomenal. The Lumber Mutual Fire Insurance Company, of Boston, are now paying 30 per cent. dividend to policy holders, and it may be that other companies have accomplished results equally as favorable.

EDITORIAL NOTES.

The British Columbia Government recently seized some logs and logging equipment of persons who were operating on the Nicomekl river, on the ground that payment of the export tax imposed by the Government had been evaded. The royalties were paid under protest, and it is understood to be the intention of the interested parties to test the constitutionality of the law placing an export tax on logs. On the other hand, the statement is made that the parties were cutting timber on lands within the Dominion railway belt which are not liable to the provincial tax, and that there are a few stretches of land along the Nicomekl river the titles to which were granted by the Provincial Government before the transfer was made to the Dominion Government, the timber thus being subject to the export royalties. The logging firms consequently made the mistake of assuming that the lands upon which they were operating were under the control of the Dominion Government. The situation is interesting, as many believe that the Government was being wilfully cheated.

The proposal of the Canadian Manufacturers' Association to have an excursion to Great Britain next summer is a very commendable idea and likely to be heartily supported by the members. Notwithstanding that Great Britain has learned much of Canada in late years, there still exists but a vague idea of the extent of our manufactories. There are in Canada about 15,000 manufacturers, 1,500 of whom, including the most progressive firms, are members of the Canadian Manufacturers' Association. A visit to Great Britain by such a representative body of business men would doubtless have far reaching results, not alone in the extension of our foreign trade, but in promoting a closer alliance between the people of the two countries. That the trip would be a pleasurable one is assured by the offer of the representatives of the London Chamber of Commerce to give their services to make the excursion a success from the time the members arrive until their departure. It is hoped that the excursion may be arranged for and that every manufacturer who can do so will take advantage of it.

VIEWS AND INTERVIEWS

Speaking particularly of the white pine market, a prominent manufacturer said: "Three things are in favor of a firm lumber market in the United States, namely, cheap money, good crops, and low stocks, and under these conditions the Americans do not go to sleep." Probably before this issue reaches the reader, the Presidential election across the line will be a thing of the past, and there is little doubt that the present incumbent will be returned to office. The tariff is therefore likely to remain practically unchanged for another four years, and there is a disposition to expect that the favorable conditions above mentioned will sustain the white pine market and probably cause a hardening of values at a little later date.

* * *

During the past three or four years the labor account has been a very heavy burden upon lumbermen, while at the same time it has no doubt exerted a sustaining influence on lumber prices. The advance in the wages of woodsmen does not by any means represent the increased amount expended for labor in getting out logs, for instead of the better pay being considered by the men an incentive to do a good day's work, the reverse seems to have been the case to an almost incredible extent. "It seems very singular," remarked Mr. W. A. Charlton, M.P.P., to the writer a few days ago, "but it is a fact that two men when wages were \$22 per month would do more work than three men when wages are \$35 per month. When they are getting \$22 per month they are anxious to keep their positions, while at \$35 they are independent." Mr. Charlton has given some attention to the labor question and claims that the results have worked out as above stated. His views coincide with those expressed by many other lumbermen, who have been compelled of late years to employ much larger crews of men to get out their usual cut of logs. Another item of expense in this connection has been due to "jumpers" abandoning work after their railroad fares had been paid. In one or two instances, however, these "jumpers" have been severely punished, which may have the effect of suppressing the habit.

* * *

There is no brighter mind in the lumber trade than Mr. R. H. Alexander, manager of the British Columbia Mills, Timber and Trading Company, of Vancouver, B.C. He is one of the most active and influential members of the Pacific Coast Lumber Manufacturers' Association, and at a recent meeting of that body expressed the following views on the cargo branch:

"You will agree with me that the close association work of two years ago in a great measure produced the satisfactory results and the good trade that followed. The time was propitious and the efforts to raise prices was of course assisted by these conditions, but the manufacturers would not have been in position to take advantage of these good times had not the association been formed and

materially assisted in the work. Times were good but the lumbermen were not receiving good prices for their product. We started in with the association work and the results were most satisfactory and of great value. Then we concluded we could draw the lines a little closer and raise prices, and I am sure that that action becoming known through other trades was fruitful of good times and good prices.

"When the association disbanded prices fell away at once and to a worse condition than has ever been known for a number of years. I am convinced that these conditions will continue unless some concerted action is again taken on the part of the manufacturers to get together and improve them.

"Why should prices be less than then?"

"The volume of business shows to be better. A very small percentage of difference exists between the first six months of 1903 and 1904, a decrease of only 9,000,000 feet in a total of 883,000,000 feet. Why should this small difference result in cutting prices in half? We have heard no complaints of the prices of our products. In fact in some markets they would be better satisfied with the higher prices than with the low. Neither were the prices so high that it brought other lumber into the field or stopped the use of lumber.

"There is but one reason why the mills of the North Pacific Coast are getting the low prices for their lumber that they are, one fault and that is ourselves—lack of association and harmony to work together. If we come together again some results can be obtained. I am mystified as to the causes of the breaking up of the old cargo association, but whatever the cause it should not now be insuperable and it behooves us to get together on a broader basis. One portion of the lumber trade cannot be in a healthy condition and secure large prices while another portion remains unsatisfactory.

"In this trade as in all others the cause of higher or lower prices rests in the matter of supply and demand and that is where association work can be made effective. If we should wait until the supply only equals the demand we would wait a long time. Looking over the figures we find that the producing capacity based on a ten hours run has increased to over five billion feet per year, while the whole volume of business, rail, vessel and local, amounts to only three and one half billions. It would seem to be hopeless to wait for the ordinary course of supply and demand to bring about an improvement of prices. It is therefore only through the resource of association work that some method of limiting the production can be reached. That has got to be done.

"I recognize that we cannot better the conditions without coming together and taking some concerted action reducing the production. This means a very large sacrifice on the part of some of us. However, I cannot see why people are not willing to make a sacrifice. It would have been infinitely better to have remained in the association and continued our work in harmony than to have gone to pieces as we did. Now some of the mills have the impression that to get a profit they must do a very great amount of business. I do not believe that any mill can by doing a vast volume of business make up a profit or any profit at all. If \$3 can be made by concerted action it means that if there is only \$1 in it that three times as much business has to be done. This is not to be thought of. We can not have good prices and do a large amount of business at the same time. Now there are more people to do the business and more people doing business than there is a demand for."

PRACTICAL HINTS ON SAWS—HOME PATRIOTISM.

By A. J. BURTON.

When my brain becomes languid and ceases to produce the desired line of new thought, I very often get out the old numbers of the trade journals and look them over for new ideas, and while reading over the articles written by others, I get my criticizing machinery in operation on what some other fellow claims to be the only way of doing things, and ten to one I pick up new ideas that had not occurred to me before.

There has been a number of interesting articles in the columns of the trade journals upon the subject of the necessary amount of crown a band saw should have to make it hold its position on the wheels while in the cut. It appears to me that filers differ greatly on this point. I am pleased, however, to see by the



MR. A. J. BURTON,
Manager A. J. Burton Saw Company, Vancouver, B. C.

journals that each year the filers are gradually learning that crown in the back of a single cut band saw is essential to quality and quantity of lumber. Readers of the CANADA LUMBERMAN may call to mind an article by the writer five or six years ago, when I strongly advocated that a single cut band saw should have 1/32 inch crown in five feet. At the same time, several brother filers wrote articles attempting to show that a saw would give the same results with a straight back. To-day I find that most of these straight back advocates are now converted to the crown back (they must have added a new wrinkle to their horn). I wish this to be understood as complimentary to these converts for their wise change of opinion, and not the meaning a farmer would understand when buying an old black cow, upon whose horns every wrinkle after six years of age lessens the value of the animal. With a filer, every wrinkle he gets on his horn adds to his value, both to himself and his employer.

Going back to saws and crown, the argument advanced by some saw makers and many filers is that the fact that double cut band saws are straight on both edges is sufficient to demonstrate the necessity of single cut saws to be straight also. This theory does not stand for the following reasons:

A single cut band saw works under entirely different conditions than does a double cut band saw.

First, a single cut saw runs with only one of its edges (the front) off the wheels, and the back always being on the wheels will consequently be tighter on the back than on the teeth. It is necessary, therefore, to crown the back of a single cut to overcome this.

Second, a double cut saw is always wider than the wheels, and both edges run off alike, therefore it is necessary that the saw be straight

on both edges in order that it be strained up evenly when on the mill.

I trust that the above will explain this matter to all those interested in this subject.

There is another point on which I wish to speak. It appears to me there is a considerable amount of prejudice among the millmen against the double cut band saw. This should not exist, for the reason that there are a great number in use giving highest results. It is up to the filer to produce good lumber and lots of it. It is a poor excuse for a filer to lay his trouble on this or that make of mill, as there are hundreds of all makes in operation in the United States and Canada.

I believe in buying all we can at home, and to prove my assertion will say I have filed for most every make of band mill made in the United States and Canada, both single and double cut, and I can say with great pride for Canada, and not boastfully, that the mills made by the Wm. Hamilton Company and the Waterous Engine Works Company will cut as much and as good lumber per day as any make of mill "Uncle Sam" ever turned out.

There seems to be a great feeling among millmen of Canada that they must buy their saws, emery wheels and file room supplies in the United States in order to get the best. It is difficult to convince them of the fact that they can buy as good an article at home. I often wonder if it is possible that the people of the United States think they must buy lumber in Canada in order to get the best. If they did it would certainly be a good thing for Canada, and our millmen should not be blamed for encouraging them to continue to think so, and if we look on the subject from an American manufacturer's business point, it is only quite natural that they should continue to impress on our people that their goods are the best, for the reason that they have the goods for sale and we have the market.

How many of our readers realize the fact that many of the best tradesmen in the United States are Canadians and at the head of the largest establishments? Why is it that these

Out of twenty-five bankers in the city of Chicago, eight are Canadians. Mr. John Hancock, formerly of St. Catharines, Ont., is now at the head of the grinding and polishing departments of one of the largest saw shops in the United States. He learned his trade in Ontario. Mr. A. M. Terry was the head of the tempering department of another large saw company for years. Mr. J. W. Walton, of New Brunswick, is the inventor of the wood rim for bicycles and is now at the head of one of the largest cycle works in the United States. Mr. Egan, of Toronto, is now at the head of the great firm of J. A. Fay & Egan, Cincinnati, Ohio, the largest wood-working machinery manufacturers in the United States, and yet these men were not considered to possess more than ordinary intelligence. Therefore I say the best way to improve on the qualities of our manufactures is to secure the best tradesmen and endeavor to keep them, even at an increased wage, as it will decrease the percentage of culls and the cost of production, and increase the prestige and reputation of our manufacturers.

COMBINATION SAWING MACHINE.

The accompanying sketch shows a very handy machine, not sold on the market. It is a combination sawing machine, which can be used for ripping, cross-cutting, gaining, plowing, etc., and for a window frame department. H. F. Wachter, writing in the Woodworker, says he has never seen its equal. For the ordinary run of every-day work it is used just as any other rip or cut-off machine. Plows, dado heads, etc., can be used at will, and two men can work on the machine at one and the same time, which in itself is a very great item in its favor. The sketch shows the machine rigged for gaining tank staves or doing other circular work of this character. Fig. 2 shows the top used when tank staves, etc., are being made; it is only necessary to lift this top out of its place and set it to one side, and you are ready for the straight top, which

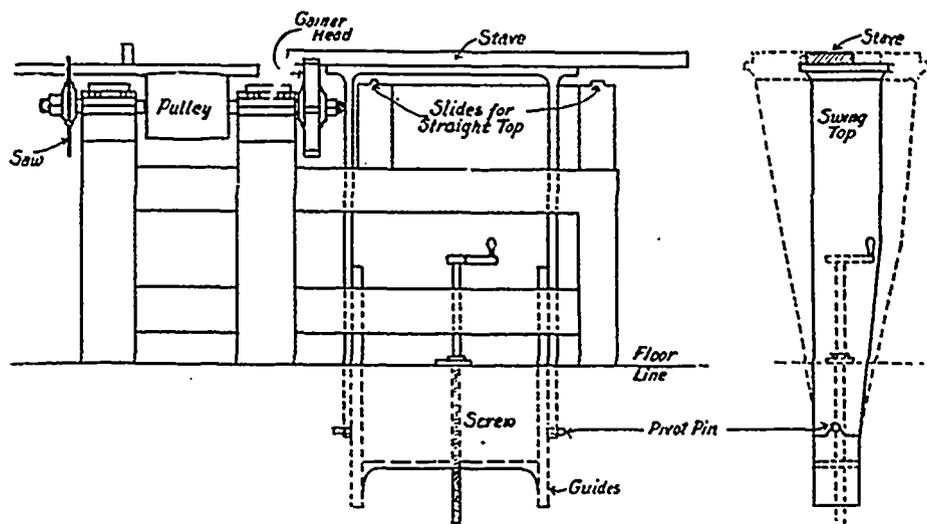


FIG. 1.

FIG. 2.

men are now looked upon as experts when only a few years ago they were considered to be only ordinary Canadian workmen? It appears to me that the Canadian employers themselves did not realize they had good men and did not give the men a chance to show their ability, consequently their modern ideas are checked and the men go to the United States, where they can better themselves and soon develop into experts. This is what becomes of our best tradesmen, and I think if there is any reason why the United States can excel Canada, it is because the American companies have Canadians at the head of their establishments in the capacity of president, manager, foreman or expert tradesmen. I will give a few facts which are well worth consideration.

need only be laid in place, and you are ready for straight work.

These sketches explain the merits of the machine better than the writer can. All that is necessary to say is that it is made of wood in most of its parts, amply large, to balance the material being worked, thus making the work easier for the operator and insuring better results than is possible when the operator has to continually exert himself to balance the stock to keep it in place, which is no easy matter when the stock is heavy, and often requires the help of a boy or man. This is not the case if the top is long, like the one shown. The machine can be made one of the big money-makers of the business, although it is not the best-looking machine in the world.

PERSONAL.

Mr. J. A. Brotherton, of Duluth, has accepted the position of foreman for the Pigeon River Lumber Company, of Port Arthur, Ont.

Mr. Geo. Ball, of Barrie, founder of the Ball Planing Mill, recently visited the World's Fair at St. Louis, returning by way of the Pacific Coast.

Mr. H. F. McLachlin, of the well-known lumber firm of McLachlin Bros., Arnprior, Ont., recently celebrated the fifty-sixth anniversary of his birthday.

Mr. John S. Fielding, consulting engineer, has removed from 20 King street east, Toronto, to more commodious offices at 15 Toronto street.

Mr. George Gordon, lumber merchant, Cache Bay, Ont., has been chosen by the Conservatives of Nipissing to contest that riding in the Dominion election to take place on the 3rd inst.

Hon. John Charlton, of Lynedoch, Ont., has formally retired from politics, after having represented North Norfolk continuously since 1872 in the House of Commons. As he has been in failing health for some time, his retirement was not unexpected. Mr. Charlton has long been regarded as one of the best authorities on the industrial and commercial condition of Canada. He was a member of the Joint High Commission appointed to consider the trade relations between Canada and the United States, and it is said that he understood the trade question better than any other commissioner. In business as a lumberman he has always been successful.

THE CANADA LUMBERMAN received a pleasant call last month from Mr. J. L. Campbell, President of the Western Retail Lumbermen's Association. Mr. Campbell has been residing for some time in Toronto with the object of getting rid of the effects of a serious ill-

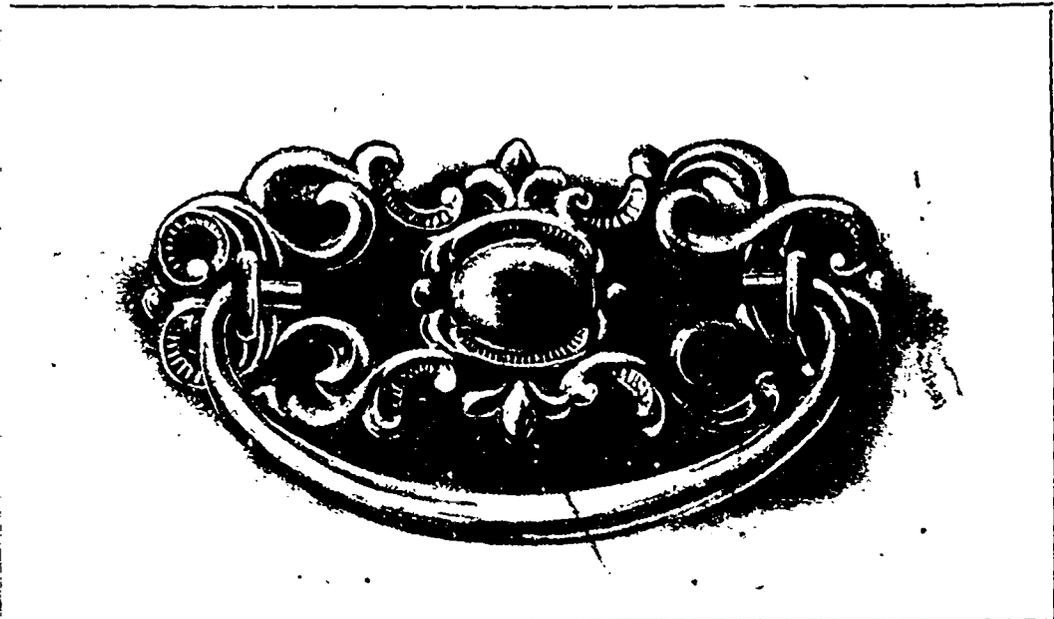
ness which laid him aside from business last winter and prevented his attendance at the last convention of the Association of which he is the chief officer. The Association marked its appreciation of his valuable services, however, by unanimously re-electing him to the presidency. Accompanied by his wife, Mr. Campbell proposes to spend the coming winter in Toronto. He has many interesting stories to tell concerning the development of the Canadian Northwest, of which he is one of the pioneers.

The Trois Pistoles Lumber Company are about to build a saw mill at Trois Pistoles, Que., in which vicinity they have acquired 155,000 acres of virgin forest.

MAKES MEN GOOD-NATURED.

An ill-natured man never works well, but Clark's Pork and Beans are so good they make all men good-natured. Made by William Clark, Montreal, of select Canadian pork and prime Canadian beans. The lumberman's idea!

A BRAND NEW DESIGN IN



BAIL PULLS

(No. 1569)

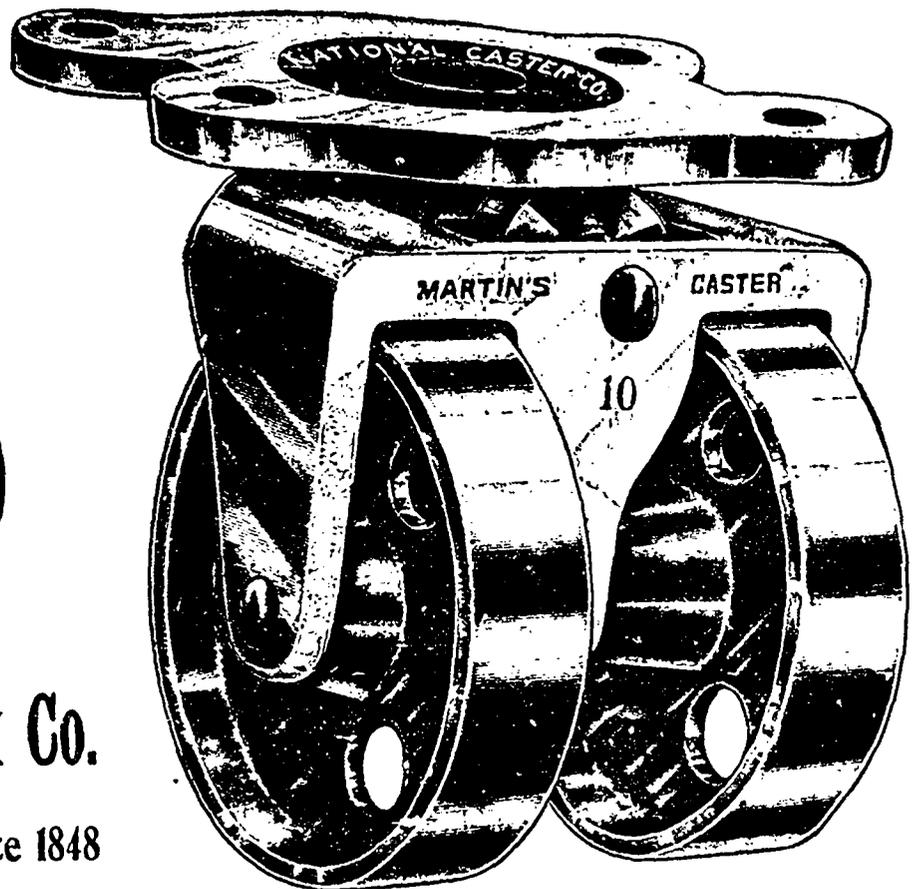
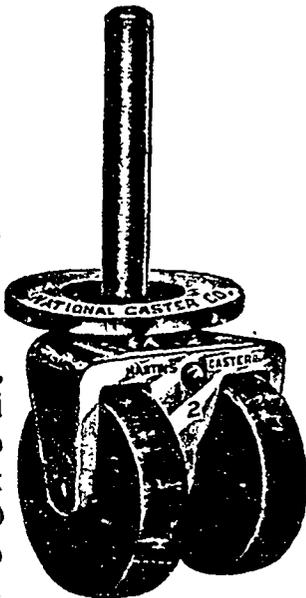
If you use these goods it will pay you to write us for sample and prices—and for Circular No. 1381.

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MARTIN CASTERS

which are without question the BEST CASTERS MADE.

The No. 2, as illustration, is for furniture and general use, with capacity of 250 pounds. The No. 10 Truck Caster has capacity of 2,500 pounds. They are also made to carry 5,000 pounds.



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**STRONG, HEAVY
AND SUBSTANTIAL**

Four large Feed Rolls, all geared at both ends, weighted and fitted with our parallel lifting device.

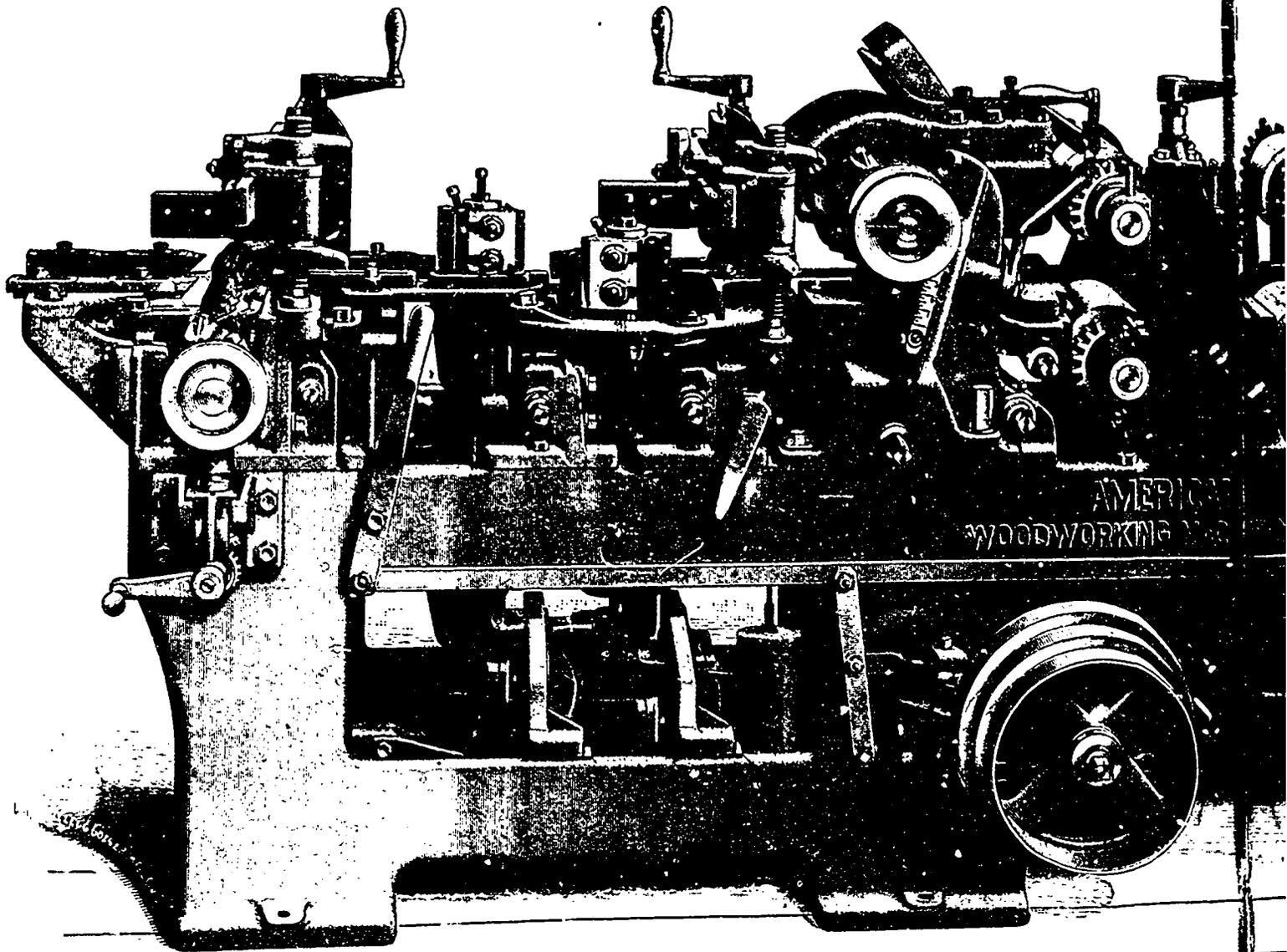
Cylinders four-sided, lipped and slotted.

Journals are long and large in diameter, running in self-oiling boxes.

Boxes are connected by yoke across the machine, ends securely clamped.

Top Cylinder after making the vertical adjustment is securely clamped on both posts from operating side of machine.

Special attention is called to the vertical adjustment of bottom cylinder, which is easy of access and raises the cylinder absolutely parallel.



Built to Work 14 inches and 12 inches wide by 6 inches thick; a

For Full Detail Information, Price a

American Wood Work



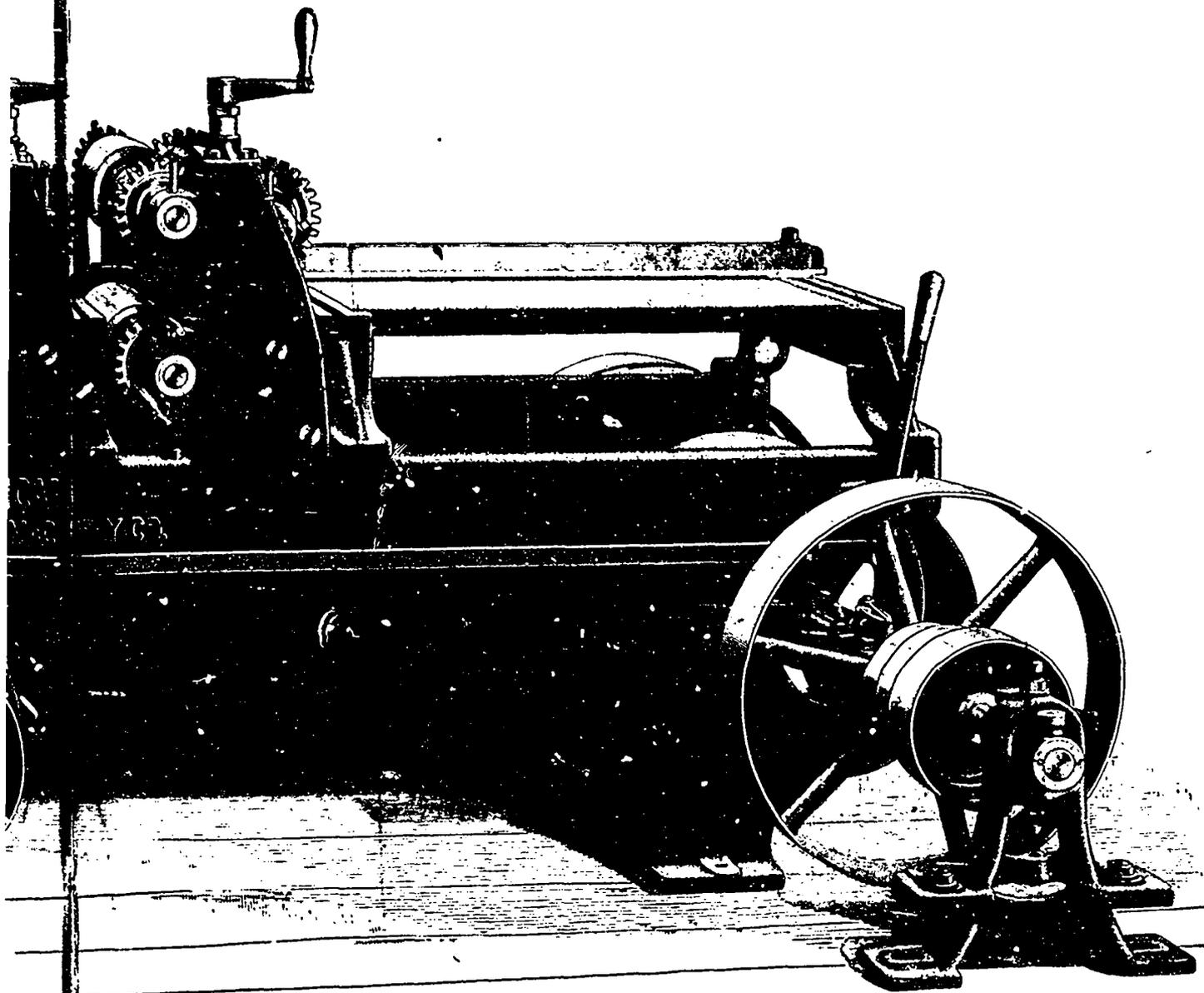
SIDE MOULDERS

Both Cylinders have a horizontal movement, to line to cut, without disturbing the vertical adjustment of the heads.

The plate under top Cylinder is slotted so that cutters can be used to swing below the bed line, to any depth of cut.

Chip Breakers for top and bottom Cylinders are adjustable, to permit the taking of a heavy cut.

All adjustments are quickly and easily made.



es thin; also 10 inches and 8 inches wide by 4 inches thick.

m, Price and Catalogue Address

Working Machinery Co.

NEW YORK, 136 Liberty Street



THE Wood-Worker and Retailer

BELT ADJUSTMENTS IN THE COOPER SHOP.

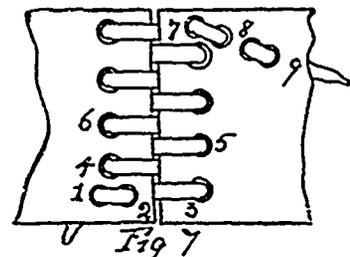
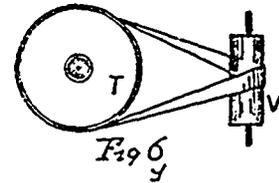
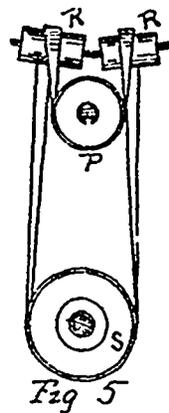
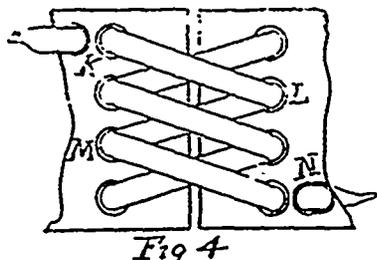
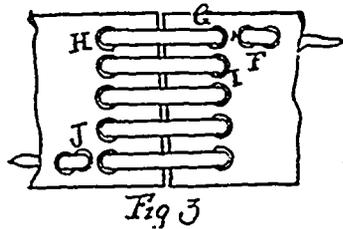
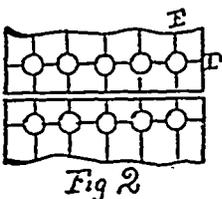
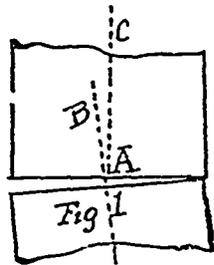
Figure 1 represents the incorrect manner in which some belts are prepared for making the union with laces. I have noticed defective joints in belts in cooperage shops of this character. The makers of the belting leather never calculated that the belts would be joined in any way except the straight, parallel alignment. In the making of the belt leather, precautions are taken to overcome stretching of one side of the belt more than the other, by cutting the belt properly from the hide. If the piece were cut from the hide so as to in-

center. The upper end of the belt line inclines to the right on the line "c", leaving a gap in one side of the union which the belt lacing cannot cover. The best way to get the union right is to proceed as in Fig 2. First get the ends of the leather cut right by using a try square for marking off, then cut with sharp knife. See that the butts or leather ends are even, and harmonize one with the other, draw a straight line across each with awl, using square, about 1 inch back from the edge. This makes line "d" for the hole series. To get the holes to correspond, draw cross line "d" from one

reverse holes. The final ends of the laces are dropped through and up again once or twice, as at "f" and "j," for purposes of securing the lace ends.

HEAVY LACE.

Fig. 4 represents a heavy form of union sometimes used in the larger sizes of cooperage machinery. This is made with the crosses on the upper side in the sketch, but in the running of the belt the crosses are usually run out from the wheel faces. To make this union start at "k," cross to "l," then to "m," and thence to "n," and so on until all



volve portions of the center, the sides, the head and offals, then there would be about as many different degrees of stretching of the belt in different parts, resulting in a wabby affair that would fail to give effective power. But the belt manufacturers reduce these differences in stretching of the belting to a minimum by selecting the belt stock from such portions of the hide as will assure even stretching, uniform elasticity and evenness in general of the fibre. The belt is finished and sent to the users. In many of the power-consuming institutions there are power engineers who oversee the work of the belting adjustments and correct imperfect setting. But in the average shop there are only the ordinary workman to care for the belts. A specialist is not employed nor would it be practicable to have one. Therefore in examining the belts one finds various conditions arising in the cooperage shop for imperfect results and ruined belting. The illustration given in the first figure is to show how the belt butts are often united, resulting in drawing the belt line from its true course, and making the belt run from side to side on pulleys. The true line would be "b", taking "a" as the

to the other butt like "e." Now all that is needed is to get a sharp punch, modern belt punch design, and punch the rows of holes. The belt is now ready for uniting.

MAKING THE JOINT.

Fig. 3 illustrates a good mode of getting a belt union jointed up for general service. There are, of course, the "hinge" union, the "running" union, etc. But for everyday service, the plain, substantial jointing in this illustration answers all purposes.

You begin the process of lacing at hole "g," and at "h" dropping the lace ends through and drawing tight. Bring up lace "h" at the other end, so as to come through at "i."

Then cross over and go down in the next hole in order, and cross underneath and come up again in the next hole in order, and continue to repeat this operation until the other side of the union is reached, when the course may be gone over again if strength is needed. In some cases it is best to double the operation by using the other lace end at same time and going through the same motions, but in the

the loops are made, after which the same may be gone through with the other lace end, thus finishing the lacing.

SOME WHEEL ADJUSTMENTS.

One finds quite an array of modern types of machinery in the up-to-date cooperage shop. It sometimes happens that systems of power transmission of a special character are needed, as, for example, as shown in Fig. 5. This consists in the arrangement of wheels not on the same plane being connected. This system is used occasionally in cooperage shops. Two idler or guide wheels are needed in this combination, and these are signified "r," "r," in the drawing. The driving wheel may be either "p" or "s." The system is used for two or three reasons. One is that in case it is necessary to increase the arc of contact of the belt on the upper wheel "p," the idlers can be so arranged as to close the belt over more and nearly envelop the wheel "p." Again, it may occur that there is power needed for transmission on the line of one of the idlers, in which place the idler bearing is substituted for a regular wheel shaft and a pulley is placed thereon.

FOR THE CAMP

We have a very suitable lot of goods for camp supplies. We make this kind of trade a specialty. You who are not getting suited just as well as you would like, try us for your next order, and give us a chance to demonstrate our ability to give you satisfaction in this very important department of your business.

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Wholesale Grocers

TORONTO

QUARTER TURNS.

The quarter turn systems are frequently resorted to in cooperage and other shops, particularly those shops in which high-speed modern machinery has been installed in recent years. Most of the newest designs of machinery require adjustments of power service for higher speed than the older designs. It happens now and then that the quarter or the half turn is needed to comply with the power systems, and Fig. 6 illustrates the process of setting the same. When a belt is needed to connect two wheels whose respective planes of revolution are at an angle with one another, as in the cut, it is necessary to do some setting. The adjustment should be such that the center line of the length of the belt shall approach the pulley in the exact plane of the revolution of the pulley. The line of motion of the belt in receding from the wheel is not important. It is when advancing on the pulley that the line must be right. In some of the shops recently visited by the writer, cases were found in which the adjustments could not be secured with sufficient accuracy, and to make up for this, a wider pulley "v" was used. Thus the wheel "t" of ordinary width could pay the belt to the cylinder-like wheel "v" at various points, and still the belt would remain on, because of the wide surface. But this is not the mechanical or wormanship way to do the thing. The one wheel should be no wider than the other, nor need it be if the setting is right. Let "t" and "v" represent the wheels of the quarter-turn system. The lower part of wheel "t" turns towards the wheel "v." The center line of the belt is on the plane of rotation of "v," and will of its own accord find the center line, and hold to it so long as the wheels turn in the one direction. If reversed, the line of rotation is altered and the belt will seek a new plane and perhaps run off. The rule is that the advancing line of belt must travel in the line of rotation of the pulley. After finding this line of rotation, and setting the wheels accordingly, no trouble will ensue with regularly made pulleys.

FOR FAST SERVICE ON SHARP TURNS.

In the cooperage shop, as in most manufacturing places, there are always cases in which special turns at high speed are needed in belts. To make the common splice for this quick service on wheels of small diameter would mean that the laces would be bent often, and in a short while would wear off and tear out.

Therefore the type of union exhibited in Fig. 7 has been adopted by many. First you mark off the line for punching the holes. The holes are punched practically the same as in the usual kind of belt joint. But instead of using the two ends of the lace leather and going across the union from hole to hole, the single end of the lace is taken, and entrance is first made at "1." To get a grip on the leather, a double is made here, coming up at "2," with the lace. Then, instead of crossing over the joint, the lace leather is passed through the lips or butts of the belt, coming over to hole "3," going down through the same, to come up at "4." Then down through between the ends of the belt again to "5," and thence to "6," and so on to the end. At "7" the lace begins to make its final grip to hold in position, going to "8," and then out at "9." The one strand, therefore, answers the purpose, and a light, flexible, elastic, hinge-like lacing results that can circuit the wheels of small size with rapidity without straining the union.—National Coopers' Journal.

FIGURING COST.

"The matter of figuring cost is one which enters so largely into the problem of successful manufacturing that even the most profitable business can hardly afford to disregard it. Where keen competition draws the dividing line between profit and loss so closely that it is difficult to say on which side a firm will find itself at the end of the fiscal year, it becomes an absolute necessity, says "C.W.L." in The Wood-Worker. Various systems, good, bad and indifferent, have been devised, but so much depends upon circumstances that it is impossible to formulate one which will meet all requirements without making it so cumbersome

Department	Pay-Roll	Production	Labor Cost per Article
	Percentage Increase	Percentage Increase	Percentage Increase
	Percentage Decrease	Percentage Decrease	Percentage Decrease

SAMPLE OUTLINES OF COST BOOK.

some and costly as to defeat the very object which it was intended to attain. The simpler and more direct that it can be made, the better, because less expensive.

As a rule, I have found that cards kept by each man, showing the amount of time expended on each job, are unreliable and take too much time. Very few workmen, especially where they have several changes a day, will keep their time with any degree of accuracy. Where many hands are employed, the work of entering and tabulating the cards is considerable and means an increased force of clerical help. However, I did not start with the intention of criticizing others, but of outlining a simple system which costs little and has proved itself well adapted to our needs.

In the first place, we keep an accurate account of the daily production of each department, which is a simple matter, as our line of goods is fairly uniform in size and grade. The cost book is lined up as appears from the copy. At the end of the week the output of each department is entered and compared with the previous week, as shown. After the pay-roll is made up, that is also entered, and dividing the pay-roll by production gives the average cost per piece absolutely. The total pay-roll, divided by the output of the factory, of course, is the average labor cost of the finished goods. Materials are figured separately. At the end of six months the footings are compiled, and the average labor cost of each article appears as a fair basis of comparison for future use.

Of course, there is more or less fluctuation from week to week, but any department showing a marked or continual increase in cost is due for an overhauling. While it is evident that this method of cost keeping would not be adapted to all kinds of manufacturing business, yet its simplicity, accuracy and inexpensiveness commend it to us as the most feasible and practical plan we have ever tried.



Corrugated Iron
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Absolutely free from defects—made from very finest sheets.
Each sheet is accurately squared, and the corrugations pressed one at a time—not rolled—giving an exact fit without waste.
Any desired size or gauge—galvanized or painted—straight or curved.
Send us your specifications.

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WHOLESALE MANUFACTURERS
TORONTO, CANADA.

THE NEWS

ONTARIO.

—The Ball planing mill, Barrie, Ont., is being wired throughout for electric lights.

—The dissolution is announced of the Orillia Export Lumber Company, Orillia, Ont.

—There is said to be a splendid opening at Tilbury, Ont., for a planing mill and lumber yard.

—The E. Long Company, of Orillia, Ont., have just completed and occupied their new office building.

—The plant of the Canadian Skewer Company at Hespeler, Ont., is being overhauled and will again be put in operation.

—Church & Bro., of New York, have decided to defer for the present the building of a heading mill at Sand Point, Ont.

—Gardner Bros. have removed their basket factory from Walkerville, Ont., to a site in New Ontario where timber is more plentiful.

—Mickle, Dymont & Company, who installed a double cut band in their Severn mill, report that it has given good satisfaction.

—The Kearney Timber and Manufacturing Company, Kearney, Ont., are advertising for employees to work in their woodworking factory at that place.

—A Board of Trade has been organized at Rainy River, Ont. J. A. Mathieu, manager of the Rainy River Lumber Company, being the first president.

—It is stated that an American syndicate are anxious to locate a match factory at Rat Portage, Ont., if sufficient encouragement is given by the municipality.

—R. F. Houston & Son, Tweed, Ont., have recently purchased 400 acres of timber land. The timber consists principally of elm, ash, basswood and hemlock.

—John Harrison & Sons, of Owen Sound, Ont., are thinking of replacing their circular saw with a band saw in the near future. They report good times in the lumber business.

—Keenan Bros., of Owen Sound, Ont., are changing their recently acquired basket factory into a pail, tub and basket manufactory. They expect to complete the change in about one month.

—The firm of Ross & Taylor, who have carried on business for some years at Exeter, Ont., as lumber dealers and planing mill operators, have applied for a charter for a joint stock company.

—The M. F. Beach Company are making extensive improvements to their wood-working factory at Winchester, Ont. A new fire-proof boiler and engine room is being built which will greatly lessen the danger from fire.

—Alex. Mustard had a saw mill at Bayfield, Ont., which was destroyed by fire a few weeks ago. He applied to the municipality for a loan of \$1,500 to assist

him in rebuilding, but the by-law for that purpose was defeated.

—Robert Leslie, of the firm of Young & Leslie Bros., Warton, Ont., recently had two ribs fractured by the breaking of a piece of lumber he was passing through the ripping machine. He will be laid up for about three weeks.

—Two men were killed by the explosion of a boiler in the saw mill of A. A. Davidson on the 6th Concession of Beverley, near Galt, Ont. The mill was completely wrecked and the large dome of the boiler, weighing 450 pounds, was thrown 375 feet.

—The William Laking Company closed down their mill at Haliburton, Ont., a few weeks ago, after a short season. They expect to get an early start next year and have put camps into the woods for the purpose of getting out an ample stock of logs.

The Owen Sound Sun states that the Carney Lumber Company have decided to locate their saw mill in that town, and that estimates are now being taken for the installation of the plant. It is stated that it will be a two band-mill with an annual capacity of 20,000,000 feet.

—For the past two years Wood Bros. have operated a portable saw mill in the vicinity of Portage Lake, Ont. They are now removing to McLaren's Lake, in the township of Foley, where they have secured a contract to saw for the William Beatty Estate, of Parry Sound.

—The inventory of the estate of the late Edmund Hall, who conducted a large saw mill at Sarnia, Ont., places the total value of the estate at \$1,374,192.26. This includes real estate in Canada valued at \$151,750, and personal property in Canada, consisting mainly of lumber and mills at Sarnia and Spanish River, valued at \$849,965.88.

—The machinery firm of G. S. Sinclair & Sons, Warton, Ont., has been turned into a joint stock company, with a capital of \$40,000. Mr. Sinclair is president of the new company, whose specialty is the Sinclair patent coupling. They contemplate building a larger shop and installing special machinery for the manufacture of this coupling.

—A sad accident occurred at the saw and planing mill of J. S. Findlay, at Owen Sound, Ont., on October 15th, by which Garfield Maley, of Toronto Junction, lost his life. Deceased was working on the moulding machine when a pulley burst, a piece striking him in the face, splitting his head open. He died within two hours of the accident.

—The Barclay Hodgkins Lumber Company, Limited, has been incorporated at Toronto, with a capital of \$50,000, the directors including C. A. Barclay, lumberman, of the Township of Pickering, and Oscar Hodgkins and Howard Hodgkins, of the village of Wellandsport, Ont. The object of the company is to manufacture and deal in lumber.

—The saw mill and lumber business at Brockville, Ont., owned by Van R. Marshall, and now operated

under lease by the Rathbun Company, will hereafter be carried on by the Brockville Lumber Company, Limited, recently organized for that purpose. The share capital of the company is \$75,000, and the directors include V. R. Marshall and S. A. Geash, lumber dealers, of Brockville, and E. W. Rathbun, of Deseronto.

—The Hurdall Novelty Furniture Company, Limited, has been incorporated at Toronto, to manufacture and deal in lumber, woodenware, etc. C. W. Kerr, barrister, and James Miln, printer, are members of the company.

—A deputation of Western Ontario lumbermen, including George Chew and D. L. White, jr., of Midland, and C. Beck, of Penetanguishene, recently waited on the Premier and Minister of Customs at Ottawa and asked for an import duty on lumber coming into Canada from the United States. Their request was taken into consideration.

—George Gordon, lumber merchant, of Sturgeon Falls, R. W. Gordon and Robert Booth, lumber merchants, of Pembroke, have, in association with others, organized the A. J. Young Company, Limited, to conduct business as wholesale and retail dealers in hardware, lumbermen's supplies, groceries, etc., at North Bay, Ont.

THE EASTERN PROVINCES.

—Gilroy & Hunter, lumber dealers, Springhill, N.S., have dissolved partnership.

—The Sherbrooke Lumber Company, of Sherbrooke, N.S., are building a saw mill at Barachois, N.B.

—Zulima Hamel has registered as proprietress of the lumber business of J. Nadeau & Company, Quebec.

—A. & R. Loggie are said to be considering the purchase of the Bentley saw mill at Loggieville, N.B.

—The saw mill of Lecasse & Boursier at Hemiau-ford, Que., was slightly damaged by fire on October 8th.

—It is understood that the Boston Last Company are establishing a large hardwood lumber business in the vicinity of Melbourne, Que.

—William Tingley, of Albert, N.B., met death by drowning while working on the boom of the Calhoun Lumber Company at Dalhousie.

—Eliser J. Richard, sash and door manufacturer, has rebuilt his factory at Meteghan River, N.S., which was recently destroyed by fire.

—The Lachute Shuttle Company, Limited, Lachute Mills, Que., has been incorporated, to carry on a general lumbering business. The capital is \$50,000, and the incorporators are the Ayers family.

—In the October number it was stated that the Gaspereaux Company, of Halifax, N. S., owned 4,500 acres of first-class timber land. This is misleading, as the holdings of the company are 45,000 acres, consisting chiefly of spruce. The company promise to be a very important factor in the lumber production of Nova Scotia.

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Our Pure Crystal Corundum Saw Gummars have no equal for their rapid, cool, cutting properties.

Read the following from Bulletin 180 of the United States Geological Survey, which says:

"Often a distinction is made between emery and corundum, many persons not recognizing emery as a variety of corundum.

Emery is a mechanical admixture of corundum and magnetite or hematite. It is, of course, the presence of corundum in the emery that gives to it its abrasive qualities and makes it of commercial value, and the abrasive efficiency of emeries varies according to the percentage of corundum they contain."

Emery is imported, mined by Greeks and Turks and contains only about 25% corundum. Our Crystal Corundum is guaranteed to be 98% pure alumina, a Canadian product, mined and manufactured by Canadians for Canadians.

HART CORUNDUM WHEEL COMPANY, Limited, Hamilton, Ont., Can.



—The Baker Brook Manufacturing Company, organized by Donald Fraser & Son, of Fredericton, N.B., have leased a water power site on Baker Brook, where it is proposed to establish a large saw mill to saw logs which would otherwise be manufactured on the American side.

—The Haskell Lumber Company has been incorporated by the Dominion Government, with a capital stock of \$400,000. The chief place of business will be at Monte Bello, Que. The incorporators are: W. L. Haskell, of Ulysses, Pa.; Matthew S. Haskell, of Herring, Pa.; Charles Adsit, of Hornesville, N.Y.; George H. Cobb and D. E. Hawkins, of Syracuse, N.Y.; James N. Peck, of Philadelphia, and George W. Thayer, of Rochester.

—The past season has been unfavourable for driving operations on the St. John river, in New Brunswick and it is said that the contractor, John Morrison, will make very little profit. He has been more than five months at the work and has been obliged to keep expensive crews in readiness when logs were not running. This is Mr. Morrison's fourth year and terminates the present contract. In winding up this season's operations Mr. Morrison is taking up the chains of all of his sheer booms, and this is taken to mean that he does not intend to again figure on corporation driving when tenders are called for in the ordinary course this Fall.

The Trois Pistoles Pulp & Lumber Company, which has been operating for some time at Trois Pistoles, about 150 miles down the St. Lawrence River from Quebec, is announced to have been acquired by New York State capitalists, including Charles R. Walker, of Dekalb; Walter F. Wilson, of Louisville; Royal Newton, of Parishville; Bert Snell, of Potsdam; James Spears, Reuben T. Wells and John Bird, of Canton, and Michael H. Flaherty, of Massena. They have secured control of upwards of 80,000 acres of timber lands covered with pine, spruce, cedar and hemlock. There is on the property a saw mill with a capacity of 8,000,000 feet of lumber annually and 150,000 shingles daily. Another mill was on the property but was partially burned last year. This the company propose to rebuild, giving them a total annual capacity of nearly 20,000,000 feet of lumber.

MANITOBA AND THE TERRITORIES.

—Mr. Miller has started a lumber yard at McAulay, N.W.T.

—George B. Gordon has built a new lumber shed at Gilbert Plains, Man.

—A. W. Reimer has established a retail lumber business at Giroux, Man.

—The Gibson Lumber Company are establishing a branch at Qu'Appelle, N.W.T.

—The Northern Fuel Company have bought out C. H. Bush & Son, lumber and coal, Edmonton, N.W.T.

—Hugh Blackburn has purchased a portable saw mill and is operating it in the vicinity of Gilbert Plains, Man.

—Walters' saw mill at Strathcona, N.W.T., shut

down for the season on September 15th, after cutting 10,000,000 feet of lumber.

—The Rat Portage Lumber Company have decided to rebuild their sash and door factory, which was burned recently, in Winnipeg instead of in Rat Portage. This decision has been brought about by the more reasonable freight rates obtainable from Winnipeg to outlying points.

—The Royal Lumber & Fuel Company, Limited, has been formed in Winnipeg, to conduct a wholesale and retail lumber business. I. E. Gaudin has been appointed manager, and with him are associated R. E. Blake-way, contractor, of Winnipeg, J. S. Loughheed, of Deloraine, Man., and others. They will locate retail yards at various points in Manitoba.

—The Great Northern Lumber Company, Limited, is the title of a corporation which will engage in the lumber business in Canada on a large scale. H. J. Haskamp, of St. Cloud, Minn., is president of the company, and H. A. Caulasne, of Northwood, is secretary. The company is capitalized at \$100,000. It is supposed to be the intention of the company to establish retail lumber yards throughout the Canadian North-West along the line of the Canadian Northern Railway.

BRITISH COLUMBIA.

—A new brick and stone boiler house is being built by the Royal City Mills, New Westminster, B.C.

—The Kamloops Lumber Company, Kamloops, B.C., are installing an electric light plant with the intention of operating their mill day and night.

—The Britannia Copper Company, of Howe Sound, B.C., are using a large quantity of lumber in the construction of their plant. Over a million feet is being supplied by Robertson & Hackett, of Vancouver.

—The Union Lumber Company, Limited, has been incorporated by the British Columbia Government, with a capital of \$100,000. It is proposed to carry on the business of lumber manufacturers and shippers, with headquarters at Vancouver.

—The Canadian Timber and Sawmills Company, of Trout Lake, B.C., of whose property the sheriff has been in possession at the instance of E. L. Kinman, is being reorganized and its troubles straightened out. A local directorate is being appointed. The head of office will be at Revelstoke.

—The British Columbia Government have granted a charter of incorporation to the Britannia Lumber Company, Limited, with a capital of \$5,000. Alfred Mattinson, of Howe Sound, B.C., is one of the promoters. The intention is to carry on business as timber merchants and saw and shingle mill operators.

—The Capilano Lumber Company have announced that they will immediately rebuild their saw mill which was recently destroyed by fire. It will be located seven miles from the mouth of the Capilano river, near Vancouver, B.C., and will be modern in every respect. The company will also construct a flume to carry the logs from the limits to the mill. They own all the timber on both sides of the Capilano river for six miles

back of the waterworks dam, and it includes some of the finest cedar on the coast.

H. J. Gilbert, president and manager of the Saginaw Manufacturing Company, Saginaw, Mich., visited British Columbia last month for the purpose of arranging for a supply of timber. To a local reporter he stated that his company used from 10,000,000 to 12,000,000 feet of timber annually for the manufacture of woodenware, and he believed that the spruce of British Columbia would be very suitable for the purpose. His company have lately experienced great difficulty in obtaining a supply of timber.

—Considerable interest is being manifested by local millmen in the new roller bearing which has been perfected by John Kincaid, of Vancouver, B.C., and which is being handled by the International Roller Bearing Company, a close concern just incorporated. Mr. Kincaid has been improving his invention for two years and he now has it as perfect as mechanical skill and practical experiments can make it. What makes it of advantage to mills is that 40 per cent. of power is saved, and the device is adapted especially to heavy machinery. The whole secret is in the double cone, and it is contended that this will revolutionize machinery as much as the discovery of ball bearings did. Negotiations are now going on with eastern capitalists, who are anxious to obtain control of the manufacture of the invention.

—John Hanbury, manager of the Hanbury Manufacturing Company, Brandon, Man., and the North Star Lumber Company, Cranbrook, B.C., has purchased land at Elko, B.C., on which he proposes to build an up-to-date planing mill, with a large dry kiln and other modern accessories, by means of which he believes he can improve the position of the local lumbermen and at the same time build up a good business for himself. His plan is to work on a co-operative basis, handling the product of the smaller mills in the rough. This will be shipped direct from the saw to Mr. Hanbury's plant at Elko, where it will be properly seasoned and put in condition to be shipped at the lowest cost for freight. The plan should be favorably received by small mill owners who have no facilities for drying and dressing their lumber.

Mr. J. F. Birchard, travelling representative for J. T. Wing, manufacturer of babbitt metal, Windsor, Ont., has just recovered from a serious attack of typhoid fever. Mr. Birchard was on the Pacific Coast on a business trip when he was taken ill and confined to the hospital at San Francisco, California, for about two months. We are glad to know that he is now sufficiently restored to health to be on the road again.

Canada leads all other countries in the extent of her forests. She possesses 799,230,720 acres of forest-covered land. Russia is credited with 48,240,000 acres, about 48,000,000 more than the United States. India comes next with 140,000,000 acres. Germany has 34,347,000 acres, France 23,466,450, and the British Islands about 2,695,000. This computation does not include Africa or South America, both of which contain immense forests.

HANCHETT SAW SWAGE AND SWAGE SHAPERS

For all sizes and kinds of Saws, Circulars, Bands, Band Resaw, and Gang Saw.

They work together. They give the saw teeth proper clearance.

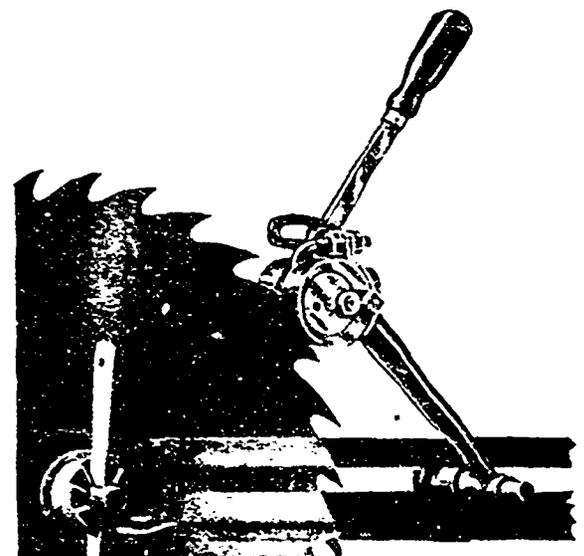
After the saw has been swaged remove the saw swage from the pin and place the Shaper thereon.

The adjustment is made from the point of the tooth, hence every tooth is made exactly alike—widest at extreme points, widest on face, no matter what the irregularity of spacing, pitch, etc. We are always glad to send our machines out on approval guaranteed to please, if not satisfactory return at our expense. A trial will cost you nothing.

Write for circular "F" to



Hanchett Circular Saw Swage, with Bench Attachment and Jointer.



Hanchett Circular Saw Swage Shaper, with Bench Attachment

Hanchett Swage Works, Big Rapids, Mich., U.S.A.

Hanchett Swages do Good Work.

WOOD PULP ~ DEPARTMENT

SALE OF THE MISPEC PULP MILL.

The liquidators of the St. John Sulphite Pulp Company have disposed of the pulp mill at Mispec, N.B., to the City of St. John. It is said that no other tender was submitted, and it is singular that the amount of the tender has not been made public. It is reported that English interests sent a formal protest against the sale unless the property realized \$150,000, and the general opinion is that the price received is below that figure. The City Council have not yet definitely decided what disposition will be made of the mill, but it is likely that it will be offered for sale or lease in the near future.

THE OUTLOOK FOR PULP AND PAPER.

Mechanical wood is not in abundant supply. It is not plentiful, and those who own it are somewhat independent in their views. They favor the policy of waiting for a rise rather than that of making a quick sale. Late news from the Scandinavian market shows that there is practically no free ground wood there, and that manufacturers there are not at all sure that they can deliver all the goods already contracted for, not because the contracts are unusually large but because by reason of drought production has been and is greatly restricted, and there are no signs of a renewal of the water supply. A shortage in the Scandinavian supply

value of pulp, and they in turn support the prices of papers in which they are an important factor, such as book, news, manila, wrapping, tissue, &c. It is generally conceded that lower prices are entirely out of the question. If they remain on their present value, buyers will be getting all to which they are justly entitled, while with high wood, high labor, short supplies, and a largely increased late demand for paper, producers of the latter expect to see higher quotations in force.—Paper Trade Journal.

PULP NOTES.

The output of the Riordan sulphite pulp mill at Hawkesbury, Ont., is now maintained at very nearly the full present capacity of 100 tons per day.

It is stated that the pulp mill of the Maritime Sulphite Fibre Pulp Company at Chatham, N. B., will be put in operation by the Bank of Montreal, who now control the property.

The Bostwick timber limits in New Brunswick, which were recently purchased by W. H. Parsons, will provide a supply of pulp wood for the Pejepscot Paper Company, in which the purchaser is interested.

It is reported that the pulp mills of Sault St. Marie, Ont., will be operated to their full capacity next year, as it has been decided to take out 50,000 cords of pulp wood during the approaching winter. The mill will be operated by the reorganized Lake Superior Consolidated Company.

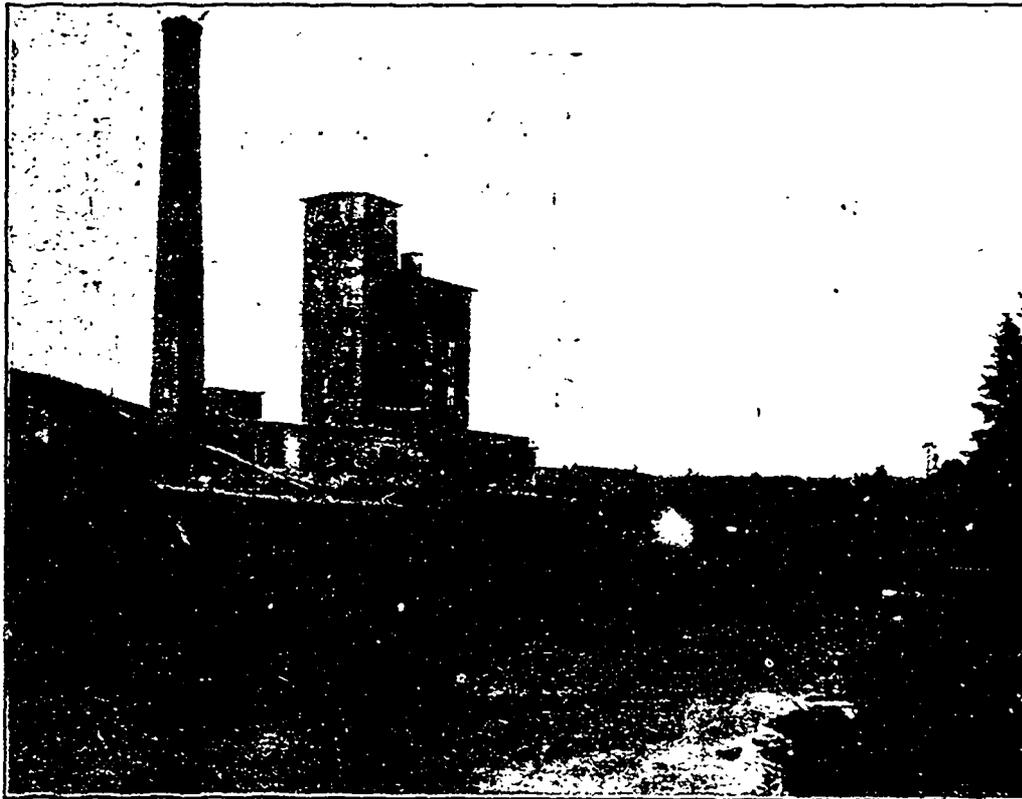
At a meeting of the Scandinavian Chemical Wood Pulp Association, held in Christiania lately, it was stated that this year's and most of next year's production was already sold. It was not deemed advisable to fix higher prices for next year, and the following quotations, c.i.f. London, were submitted: Ordinary Strong pulp, £8 5s.; best grades of easy bleaching pulps, £9.

The United States manufacturers of soda pulp have fixed the price for 1905 at 2.15 cents for both contract and non-contract business. This year's figures are 2.1 cents for contract and 2.4 cents for separate orders. The advance made, therefore, is but 50 cents per ton, which is less than is believed to be warranted by conditions. Reports collected disclose the fact that stocks at the mills are very light.

According to information received from the different wood pulp districts, the prospect of a water famine in Sweden is not so pronounced as in Norway. Although the summer there has been very dry, the snow-melting during the Springtime proceeded so quickly that the lakes and reservoirs were well filled in the early part of the summer. This month, however, will decide how the mills are going to be worked during the winter.

The Lockwood Trade Journal Company, 150 Nassau street, New York, have issued the 30th annual edition of Lockwood's Directory of the paper, stationery and allied trades. This edition is a record breaker in every respect, being larger and more comprehensive than any previous number. It includes a complete list of all the paper, pulp and chemical fibre mills in the United States, Canada, and Mexico, as well as a list of paper dealers and importers, stationers, manufacturers of blank books, envelopes, paper bags, boxes, etc. All departments have been revised and brought strictly up-to-date, and the vast amount of information it contains makes the book very valuable and useful. The retail price, express prepaid, is \$3.

The Manitou Lumber Company are enlarging and improving the planing mill which they recently purchased at North Bay, Ont.



THE MISPEC PULP MILL, PURCHASED BY THE CITY OF ST. JOHN, N. B.

The mill property consists of 300 acres, located on the Mispec river about six miles from St. John. The buildings are brick and are situated on the bank of the Mispec river. The mill is capable of producing 200 tons of pulp per week, but the building is so arranged as to permit of doubling the output.

The mill dam is substantial and is fifty feet high. There is an ample supply of power for driving the machinery, this being furnished by four water wheels capable of developing 600 horse power. In addition there is a 250 horse power compound steam engine as an auxiliary, and in the boiler room there are steam boilers of 500 horse power capacity for use in the cooking and drying of the pulp.

The promoter of the mill was Mr. M. F. Mooney, who floated the enterprise in Scotland and was subsequently appointed manager.

will naturally increase the demands on other ground wood producing countries, and as we are buyers of ground wood we, of course, are more than likely to feel the effects of these conditions.

Sulphite does not show any weakening tendency and standard and well known makes are bringing full prices. The soda fibre manufacturers advanced prices 2½ points, and they agree that conditions would warrant a considerably larger advance. Supplies are low, and it is stated that the present stock would be sufficient for only three to five days' demand. That a greater advance is not made is only due to that forbearance for which soda fibre manufacturers are so noted.

The price of wood is steadily advancing and the price of labor is constantly moving in the same direction. These factors support the

C. H. VOGEL

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OTTAWA, CAN. ENGINEER
Surveys, Plans, Specifications and Supervision
WATER POWER
Paper, Pulp and Sulphite Fibre Mills

THE ST. CROIX LUMBER COMPANY.

Among the latest additions to the lumber industry of Nova Scotia is that of the St. Croix Lumber Company, of Hartville, N.S. The company was incorporated under the laws of Nova Scotia in December, 1903, operations being immediately commenced by the purchase of the mills and limits of T. G. McMullen at Hartville, N.S. The limits comprise 30,000 acres of first-class timber lands, heavily clothed with spruce, pine, hemlock and birch. The management consists of the well-known David McPherson, M.P.P., of Nova Scotia, president; J. C. McIntosh, vice-president; and J. M. Davidson, secretary-treasurer and manager, with office in Halifax, N.S.

The plant, which comprises a saw mill and lath mill, is equipped with the most modern machinery, including log haul-ups, trimmers, band saw, edger, planing machine, resaw, slab saws and lath machinery. Power for driving the machinery is obtained from a turbine water wheel of 150 horse power. Piling grounds afford room for the piling of from two to three

million feet of lumber, the company having at the time of writing 2,000,000 feet awaiting shipment via the D.A.R. to Halifax, thirty-seven miles away.

Most of the stock, which figures out at four and one-half million feet annually, is marketed in Great Britain, about twenty per cent. going to the United States and fifteen per cent. locally. The lumber is manufactured in the proportion of 65 per cent. spruce, 10 per cent. pine, 20 per cent. hemlock and the remaining 5 per cent. hardwoods, chiefly birch. The percentage going to Great Britain is sold at the mill to W. Malcolm McKay, of St. John, who ships via Halifax, where he has an office, while the company deal directly with American purchasers for the New York market.

Not content with the property as purchased, the management, desirous of producing first-class lumber, have improved their equipment by shortening the carriage and adding an extra saw to the edger. They purpose increasing the capacity by installing a new edger next spring, while, providing the market for their lumber improves, it is their intention to extend operations by the purchase of other properties known to be on the market. Despite the pres-

ent slump in the price of lumber the company are well satisfied with the result of their first year's working, as they had the good fortune to dispose of 2,500,000 feet of lumber before the slump in prices came on.

Mr. David McPherson, the president of the company, was born in Shelburne County, N.S., in 1834, of Scotch parents. On attaining the age of manhood he came to Halifax and began work as a shipbuilder there, soon building up a large trade in the construction of wooden ships, which he owns and runs to this day. At the age of thirty-five he began to take a large interest in public affairs and it was not long before he succeeded in being elected to the city council of Halifax. Since then he has twice been elected as mayor of the city, between the years 1892-1898. In 1898 he entered the Provincial House and soon distinguished himself, being appointed as a member of the cabinet of Nova Scotia in 1900.

Mr. J. C. McIntosh, the vice-president, is a much respected private banker and broker of Halifax.

Mr. J. M. Davidson, the secretary-treasurer and manager, is a member of the bar and a graduate of Dalhousie College, where he took the degrees of B.A. and L.L.B.

R. SPENCE & CO.

Bench File Works.
HAMILTON, ONT.
FILE AND RASP MANUFACTURERS
AND RE-CUTTERS
A trial order solicited. Write for price lists and terms.
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RAILS

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

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83 Front St. West,
(Opposite Queen's Hotel.) Toronto

GREAT NORTHERN LUMBER CO., LIMITED

Our Specialty

Pacific Coast Red Cedar Lumber

Expertly Manufactured and Culled.

Correspondence Solicited.

ADDRESS:

R. D. RONSON, General Manager.

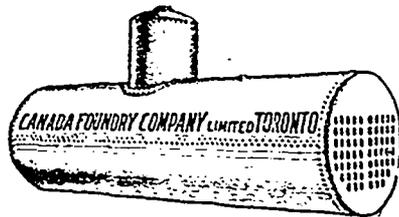
Vancouver, B. C., Room 19, Inns of Court

The THORNBURY GASOLINE ENGINE & FOUNDRY CO., Ltd.

Our New Works now being in full running order we are prepared to fill all orders for Gasoline Engines, Special Machinery and all kinds of rough or finished Iron or Brass Castings. Get our quotations on Grate Bars, Boiler Fronts, etc., etc. Wholesale and Retail. Head Office, THORNBURY, ONT.

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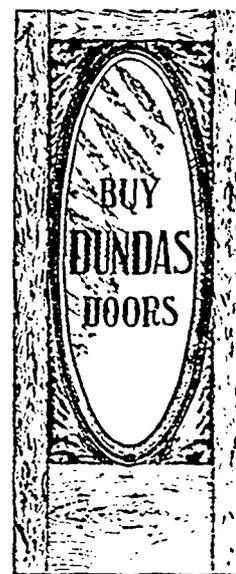


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Dundas, Ont., Can.

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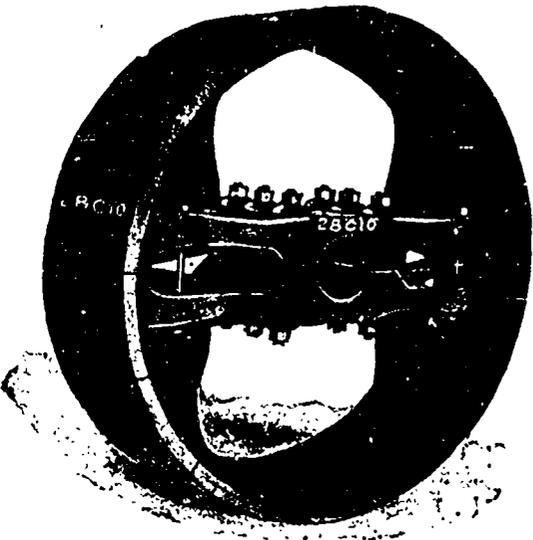
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Manufacturers of all kinds of Fire Clay Goods, Ganister and Silica Goods, for Iron and Steel Works and Gas Works, including Boiler Seating Blocks and Covers of all sizes, Ground Fire Clay, Ganister and Silica. In all kinds of Packages



THE FAIRBANKS WOOD SPLIT PULLEY.

The accompanying cut represents the Fairbanks wood split pulley now being manufactured in Montreal and sold by The Fairbanks Company in their Montreal, Toronto, Winnipeg and Vancouver offices. This



pulley has been manufactured for some time in the United States, and was selected by The Fairbanks Company as the best wood split pulley made.

The following is a description of same: The arms of the Fairbanks wood pulley are made of hard maple, well seasoned and thoroughly kiln-dried; they are

clamped together and bored, thereby making a perfect round hole so as to fit the shaft. The hub is then cut so as to allow compression to be obtained, and the friction surface on the shaft is nearly equal in length to the width of the face of the pulley. The outer face of the arms are so cut as to add to the appearance of the pulley. The outer ends of these arms are provided with recesses to receive the webb. These webbs are thoroughly glued and nailed to the arm and are built in with the rim, thereby making a strong connection between the arms and the rim.

The rim of the pulley is made of soft wood, thoroughly seasoned and kiln-dried. The segments are built up, on a true inside circle and thoroughly glued and nailed. The entire pulley, so to speak, is built up at the same time, which is claimed to be an advantage over pulleys where the rims and arms are built up separately, and afterwards assembled.

This pulley with its web construction is an advantage over other pulleys owing to the support given to the rim, which not only strengthens the entire pulley but makes it impossible for the rim to work loose at the arm. The pulley is inspected in the course of its construction as to material and workmanship. The pulley is particularly adapted for saw and planing mills. Any further information will be gladly furnished by the Fairbanks Company, who have established several agencies for same throughout Canada.

If you wish to sell or buy a timber limit, saw mill or other lumber property, try an advertisement in the CANADA LUMBERMAN WEEKLY EDITION.

LUMBER FIRES.

That lumbermen and woodworkers were having their share of fires in August was shown by the figures compiled by the Journal of Commerce and Commercial Bulletin. The compilation showed for the United States and Canada an aggregate loss of \$971,750, which included thirty losses in excess of \$10,000, amounting to \$845,000. To this is added 15 per cent. for small and reported losses, bringing the total to the above figure, very nearly approaching a million dollars.

But bad as was the month of August, its losses become small when compared with those of September. In the same territory the total for the first autumn month amounted to \$2,256,300, which included forty-one losses of \$10,000 or over. This is an increase of 132 per cent. over the previous month, and would appear to indicate that one of those unaccountable fire epidemics which often attack some one branch of business is now running through the lumber trade.

Whatever other result this may have it must teach even greater caution against fire than now exists among owners of lumber yards and woodworking plants. There is a lesson in it, too, for the man who carries no insurance, because he believes his lumber yard immune from the sparks of the passing locomotive, the ashes of a careless laborer's pipe, or the thousand and one other causes of mysterious fires. The loss of two and one quarter millions in thirty days does not fall so heavily on the trade as it might, were it not for the insurance companies, who are as usual bearing the burden of the loss. Their services in this month of disaster have been such that no lumber dealer can in justice to himself afford to do without them.

THE LUMBER MUTUAL FIRE INSURANCE COMPANY

OF BOSTON, MASS.

The Strongest Lumber Trade Company

Net Assets, **\$552,089.25** | Dividends to Policy Holders **30%**
 October 1st,

MAIL YOUR EXPIRING POLICIES WITH ORDER.

SADLER & HAWORTH
 TANNERS & MANUFACTURERS OF
OAK LEATHER BELTING
 AND LACE LEATHER
HYDRAULIC & MECHANICAL LEATHERS

DEALERS IN GENERAL MILL SUPPLIES

MONTREAL.

TORONTO.

Corner William & Seigneurs Sts.

9 Jordan St.

TRADE NOTES.

Messrs. Henry Dixon & Sons, manufacturers of saws, files, etc., Philadelphia, advise us that it is their intention to establish a factory in Toronto.

The corporate name of the Milner-Petrolia Wagon Company, Limited, Petrolia, Ont., has been changed to the Petrolia Wagon Company, Limited.

The Toronto office of the Fairbanks Company, dealers in wood-working machinery, engineers' supplies, etc., has been removed to 100 King street west.

The Georgian Bay Engineering Works are erecting a large wharf at their plant at Midland, Ont. When completed it will be 3,500 feet long and 1,500 feet wide, with a minimum depth of 20 feet in the slip.

The Gutta Percha & Rubber Manufacturing Company have commenced the erection of their new factory on O'Hara ave., Toronto. The building will be 180x152 feet, four stories high, and will cost about \$100,000.

Clarke & Demill, manufacturers of woodworking machinery, Galt, Ont., are likely to remove to Hespeler, the ratepayers of that place having approved of a by-law granting them a loan of \$20,000. Not a single vote was registered against the by-law.

The Nipissing Foundry & Machine Company, Limited, has been organized at North Bay, Ont., to carry on a general foundry and machine business. The promoters include George Gordon, lumber merchant, of Sturgeon Falls, and Robert Booth and R. W. Gordon, lumber merchants, of Pembroke. The capital of the company is \$20,000.

Chew Bros., of Midland, Ont., recently built a new boiler house and installed a new 50 horse power boiler. Concrete foundations have been put under their engines. They have also installed a new log loader and a Waterous carriage. This firm cut between five and six million feet of lumber this season, most of which has been sold.

The William Kennedy and Sons Company, of Owen Sound, Ont., have recently erected a new office building designed to provide the additional accommodation rendered necessary by the great increase in the volume of their business. As most of our readers know, this company are manufacturers of water wheels and general foundry work.

The Owen Sound Iron Works, Owen Sound, Ont., are putting in a twelve-foot roller and a heavier punch and shears. With the air tools already in use this firm will have one of the most complete mill machinery

equipments in their locality. They recently entered the cement machinery manufacturing field, and have already supplied several machines.

The growth of their business has compelled Hammacher, Schlemmer & Company, dealers in hardware, tools, glue-handling appliances, etc., New York, to secure larger quarters. These have been obtained at Fourth Ave. and Thirteenth street, where the company are now located, and they extend a cordial invitation to their customers and friends to inspect their new home from "cellar to attic".

The business of the Stilwell-Bierce & Smith-Vaile Company, manufacturers of hydraulic machinery, etc., Dayton, Ohio, has been acquired by Colonel J. D. Platt, president of the Barney & Smith Manufacturing Company. Colonel Platt has organized a new company to be called the Platt Iron Works Company, and to have a capital of \$400,000. The unfinished contracts of the Stilwell-Bierce & Smith-Vaile Company will be taken over.

Lewis Bros., wholesale hardware dealers, Montreal, are about to erect a large building in that city to accommodate their increasing business. It will be located on Bleury street, near Craig, and will extend to Hermine street. It will be six stories high, in addition to a basement, and will cover 20,000 square feet of ground surface. Lewis Bros. are well-known to the lumber trade, being large dealers in axes and other lumbermen's tools.

Mr. Bennett's declaration that a duty on lumber is required to preserve the great trade upon which this district depends largely for its prosperity received a pointed confirmation when a shipment of three inch maple was brought into Orillia from the United States last week, to compete with the home product.—Orillia Packet.

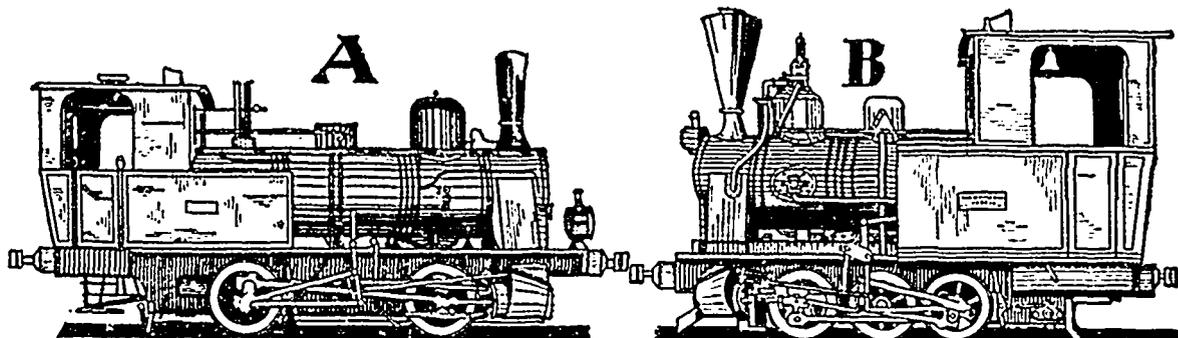
NEW BUCKEYE 1903 IMPROVED SAW MILL



Five sizes, Stationary and Portable. Has the essential points of a portable mill. Built on scientific principles. Quickly taken up and reset. Easy running. Feed changed in an instant while going through the log, from 3/4 inch to 5 inch. No feed belts to slip and wear out. Sold on its merits. Also Portable Engines. Write for particulars to

ENTERPRISE MFG. COMPANY
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Mention the CANADA LUMBERMAN.

FOR SALE



LOCOMOTIVES OF THESE TYPES ARE OUR SPECIALTY AND HAVE BEEN SOLD BY US ALL OVER THE WORLD

These two Engines are now on exhibition in the German Section, Palace of Transportation at the World's Fair and can be bought at a low figure.

— ENGINE A —
For standard gauge track.
Switching Engine.
Weight, 61,600 lbs.
Tractive power 15,000 lbs.

— ENGINE B —
For track of 3 feet gauge.
Suitable for work in lumber,
mining and manufacturing districts.
Weight 19,800 lbs.
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For information and prices apply to our representative in the Transportation Building at the World's Fair
MR. F. W. GUTBROD

Henschel & Son Locomotive Works, Cassel, Germany

Have we booked your order for

A SNOW PLOW?

The Brazel Snow Plow is the only Snow Plow in the United States and Canada. The only Plow which will make a Perfect Road. Always state width of sleighs. We are always in the market for Rock Elm, Soft Elm, Maple, Oak, and Pine.

THE WILKINSON PLOUGH COMPANY, LIMITED, TORONTO.

AN EVIDENCE OF PROSPERITY.

It follows that, when one makes a specialty of a thing, he becomes more and more skilful in that direction, and constantly works to better advantage, owing to his increasing dexterity. This principal also applies in manufacturing. Where a limited line is built, instead of a general line, special machinery adapted to the most advantageous possible construction of the same can be installed, the various parts can be run through in large lots, which reduces the cost to the minimum,

the men become exceedingly proficient in the work, etc.

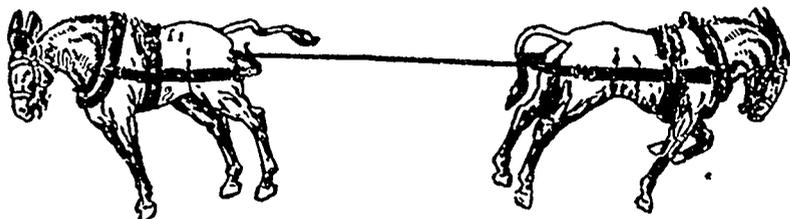
It is to this fact, and to the fact that they have one of the most severely practical designers in the country, that the Gordon Hollow Blast Grate Company, of Greenville, Michigan, the largest manufacturers of hollow blast grates, edgers and trimmers in the world, attributes its wonderful success.

Having found its former facilities unequal to its constantly increasing business, it is adding to them by the

installation of new special and other machinery, including a Corliss engine, and by two additions, one 22x40 feet, two stories high, and one 40x80 feet, also two stories high. Further improvements are also contemplated.

P. PAYETTE & CO.

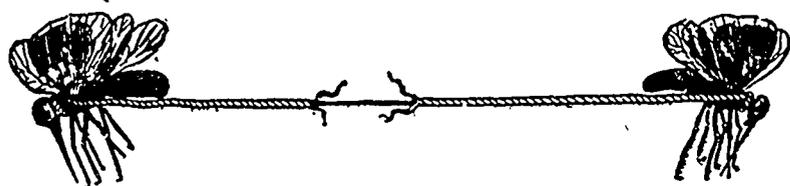
Manufacturers of Saw Mill and Engine Machinery and all kinds of Marine Machinery.
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These Mules Cannot Break This Yarn

BECAUSE IT WAS MADE BY THE

Consumers Cordage Co., Limited



Poor Yarn is Dear at Any Price

We Manufacture

**Double and Single Lath Yarn,
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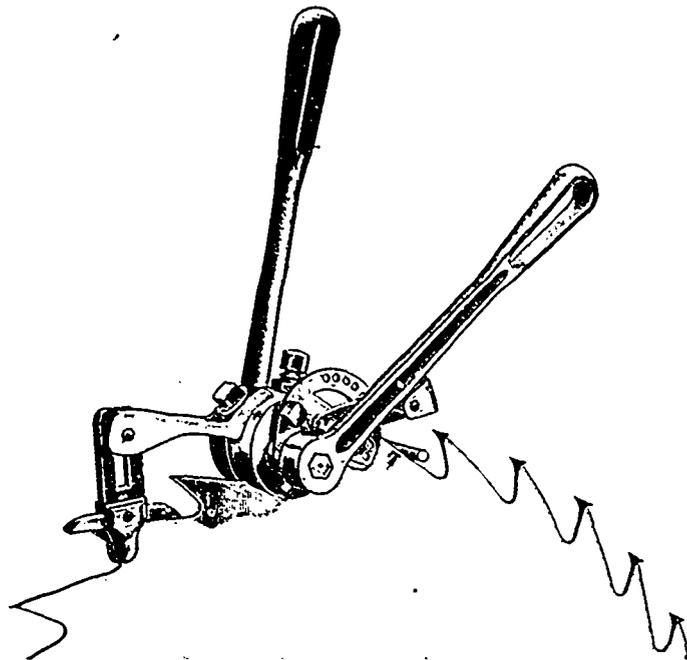
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Our mills are equipped with the latest improved machinery for making extra long lengths of Transmission Rope.

CONSUMERS CORDAGE CO., LIMITED
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Circular
Saw Swage

Can be used on Band Saws simply by using the Band Saw Front Gauge.



We make nothing but Saw Swages and use the finest material obtainable in manufacturing.

Let me send you reference of some who have used them.

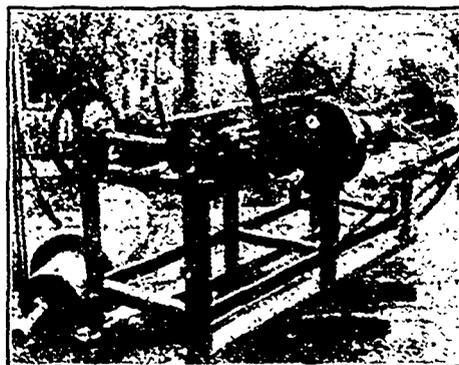
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The Kennedy Island Mill Co., Ltd., Riviere du Loup, Que., says—

“I might say to you that this Grinder is all right and has paid for itself twice over since I bought it. No Shingle Mill of any account should be without one.”

TRIMMERS

If the Board does not reach the quadrant the Saw stays down and trims, see cut. To cut off more than two feet, bad ends, etc., pull the cord, see dotted lines. The whole Board can be cut into two foot lengths or trimmed in any manner. The Saw frame is balanced, the Arbor pulleys are 8 in. x 8 in. We build several styles of Trimmers, also all kinds of

Saw and Shingle Mill Machinery

Our “Boss” Shingle Machine is second to none in Canada. Our sales will prove it. We make Saw Jointers and Knife Jointers, also Packing Boxes. Send for Catalogue.

For Sale

2 sets of Ellis' offsets—Cheap.
One second-hand stationary Bell Crank Steam Nigger manufactured by the Wm. Hamilton Mfg Co., Peterboro
We shall be pleased to supply Punt Winches or Capstans to parties requiring same. Prices on application.

B. R. Mowry & Sons, GRAVENHURST,
ONTARIO

THE DISTINGUISHING MARK



Factories and Home Office,
Indianapolis, Ind.

To install in your mill a set of saws that will suit you in every particular, it is necessary that you be familiar with some means of distinguishing the HIGH-CLASS SAWS from the others. Knowing some such mark you will always discriminate in favor of the saw which bears that mark of QUALITY.

THE ATKINS "TRIPLE A" etched on all HIGH GRADE SILVER STEEL CIRCULAR and BAND SAWS, is the sign which assures QUALITY, EXCELLENCE and absolute SUPERIORITY in Saws. "IF IT'S SILVER STEEL IT'S AN ATKINS." Look for our trade mark.

A little reminder of the "TRIPLE A" in the way of a pretty watch charm to Mill men who write for it. Also our Mill Supply Catalogue. Both free.

E. C. ATKINS & CO., Inc.



Canadian Branch,
30 Front St. East, Toronto, Ont.

Saw Mills

Portable and Stationary

Mill Dogs, Edgers and Mill Supplies

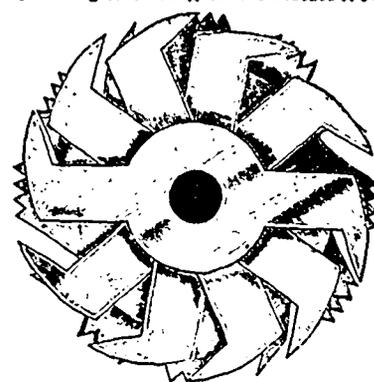
High Grade Portable and
Stationary Engines and Boilers

SEND FOR CATALOGUES

The Robt. Bell Engine & Thresher Co., Limited
SEAFORTH, ONT., CAN.

HUTHER BROS. PATENT GROOVER OR DADO HEAD

For cutting any width groove from 1/4-inch to 2 inches or over



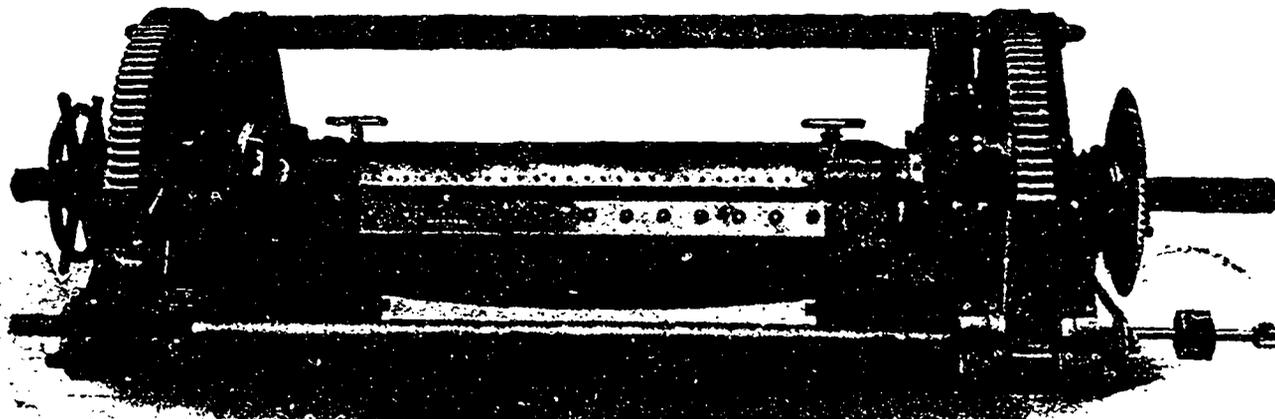
Can be used on any Circular Saw Mandrel. Will cut a perfect groove with or across the grain.

This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of woodworking machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense. HUTHER BROS., Platt Street, ROCHESTER, N.Y., manufacturers of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc.

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 COE MANUFACTURING COMPANY, Painesville, Ohio, U. S. A.

Established 1852.

Largest Builders of Veneer Cutting Machinery in the world.

EXCELLENCE IS PARAMOUNT

THE

"Acme" Brand

-OF-

Shoe Packs, Larrigans and Moccasins



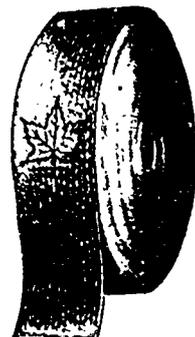
TO THE TRADE

I confine myself exclusively to the manufacture of this line of goods, having an up-to-date tannery, also years of experience myself. I am prepared to fill all orders promptly and guarantee to give satisfaction at lowest possible prices.

WM. A. HOLT,
ST. ANDREWS, N. B.

MADE IN CANADA

**STITCHED
COTTON
DUCK
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SUPERIOR TO ALL OTHERS

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Agricultural Machines, Elevators, Pulp and Paper Mills, Cotton, Wool-ten, Cement and Saw Mills, Machine Shops and Electric Powers.

MANUFACTURED BY

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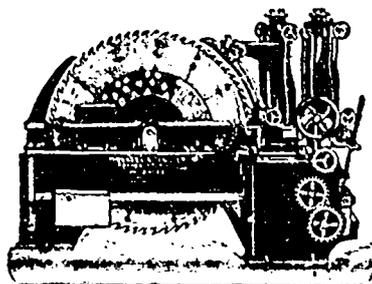
HAMILTON, CANADA

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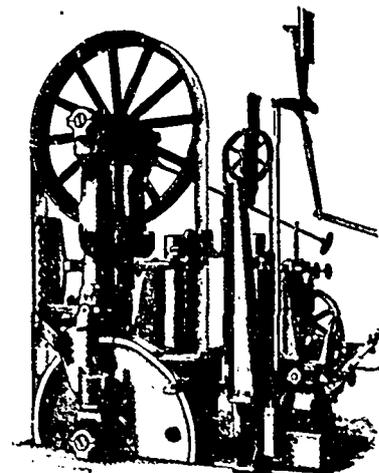
"MAPLE LEAF BELT DRESSING"

Gonnell & Dendler Machine Co.

ROCHESTER, N. Y.



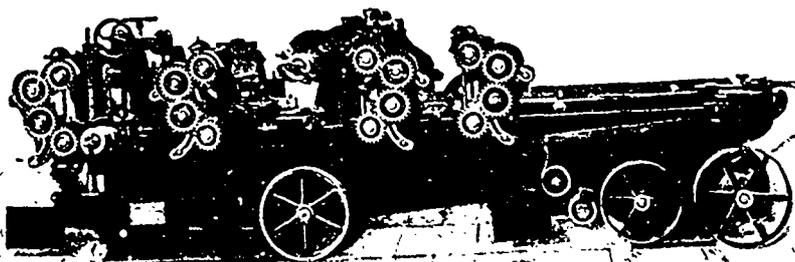
44 inch Circular Re-Saw.



60 inch Band Re-Saw

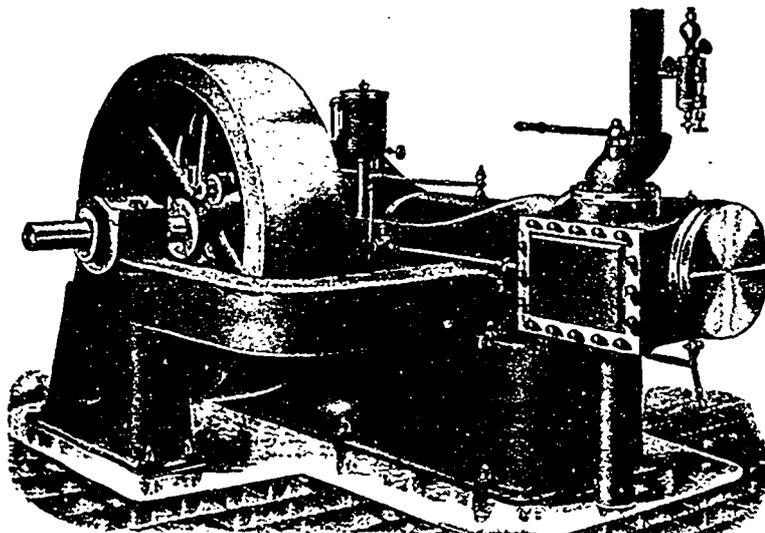
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**Box Makers' and
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Heavy 25 inch Divided Roll Planer and Matcher with 8 Feed Rolls.

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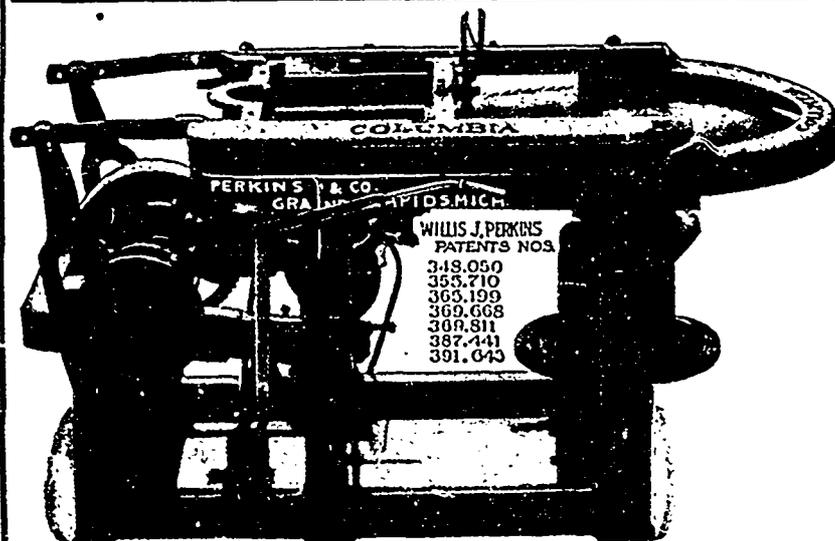


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"Your engine has been running day and night for over three years (equal to seven years' regular work) and during that time we have never lost a minute through any defect in the engine and have never expended a dollar in repairs. It is still running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

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And we say it strong, with all the confidence that comes from knowing we can prove our assertions, that the

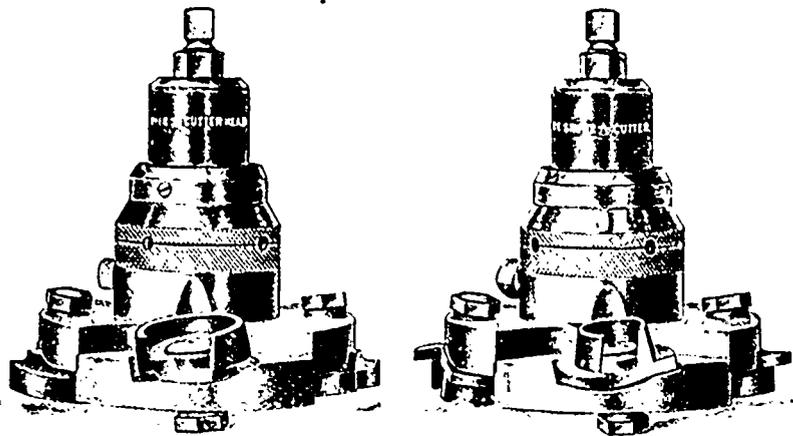
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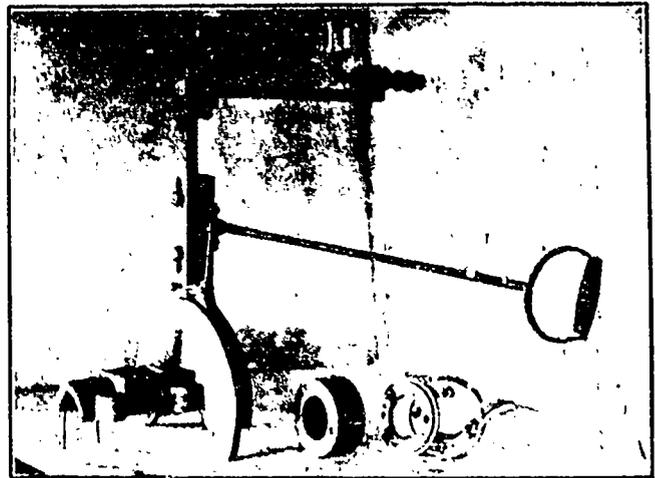
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Are built from forgings of Steel and finished throughout in the solid metal. This insures accuracy, durability and perfect mechanical adjustments.

They are appreciated by the user because they hold up under the severest tests. They cut easily all kinds of hard, knotty and cross-grained lumber. If you make single tongue and groove Flooring, Ceiling and Wainscoting, buy THE SHIMER CUTTER HEADS and you will have no disappointment. Address

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The attention of Manufacturers of Lumber is called to the above named latest and best method of sawing lumber.

The following advantages are obtained:

Lower cost of installation than any other method which will saw an equal number of superficial feet in a given length of time.

Smaller expense in operation than producing lumber at a lower cost per thousand feet than any other method.

Requires no more help to operate it than any well equipped Circular Saw Mill.

Lumber has been sawn better and more accurately cut by this method than by any other now in use.

The Killam Tandem Circular Mill requires no more skilled men to operate it than is required to operate the ordinary Circular Mill.

If solid saws are used, the larger one, when worn down can be used for the smaller one thus saving expense for saws.

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No time is lost in setting for any thickness from the cut of stationary saw up to six inches.

This machine takes the place of a resaw in a mill and only requires a floor space of 6 ft. x 6 ft.

Also takes the place of a Twin Circular Mill that is now used for slabbing and this machine will save as much lumber as any Twin Circular, thus saving the expense of a resaw and men to operate the same.

This machine is so cheap that any manufacturer of lumber can well afford to have one, for it will pay for itself in a short time.

Will cut 50 per cent. more lumber than the Circular Mills now in use.

MANUFACTURED BY OXFORD FOUNDRY & MACHINE COMPANY, OXFORD, N. S.

REFERENCE.

M. L. KILLAM, TRURO, N. S.

Dear Sir.—It gives us great pleasure to testify to the value of your Tandem Circular Saw Mill. It has paid for itself twice over during the six months we have run it. It requires no more help to operate it and the lumber is more evenly sawn. It does all that you claim it will and we would recommend it to any manufacturer who wishes to make more and better lumber with the same help as with the Single Circular Mill. Wishing you success, we are
Yours very truly,
DICKIE & McGRATH Tusket, N. S.
Dec. 31, 1903.

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CANADA

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

The Lumberman Heater

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This Heater is used in heating Lumbermen's Camps, Boarding Houses, School Houses and large buildings.

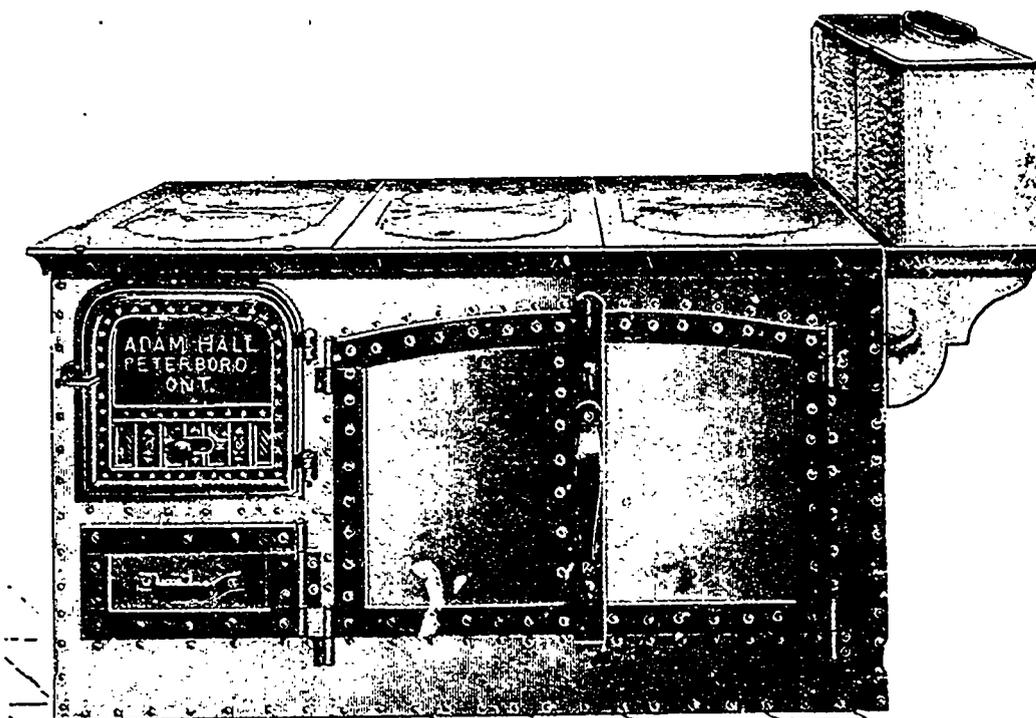
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It is a perfect Heater, and very durable.

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

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Add from 20 to 50 Per Cent. to your Steaming Capacity



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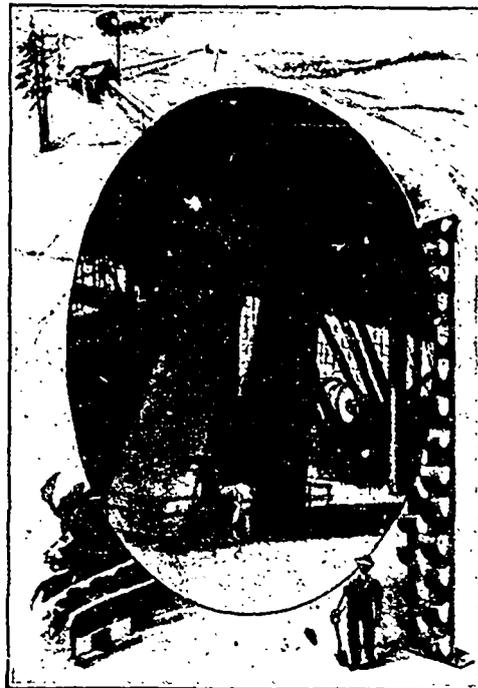
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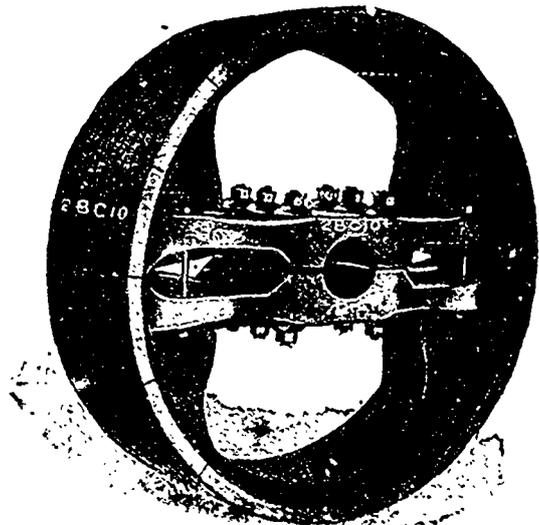
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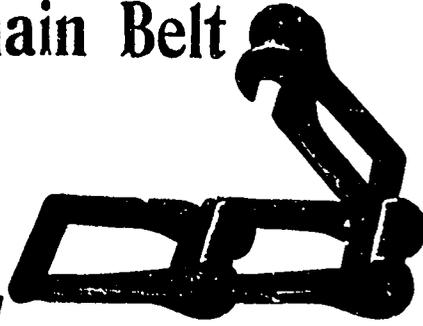
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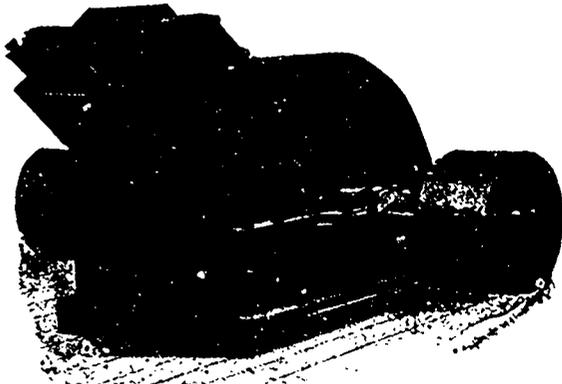
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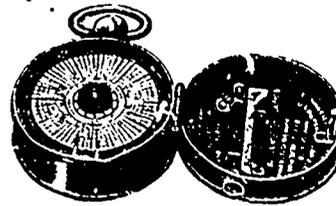
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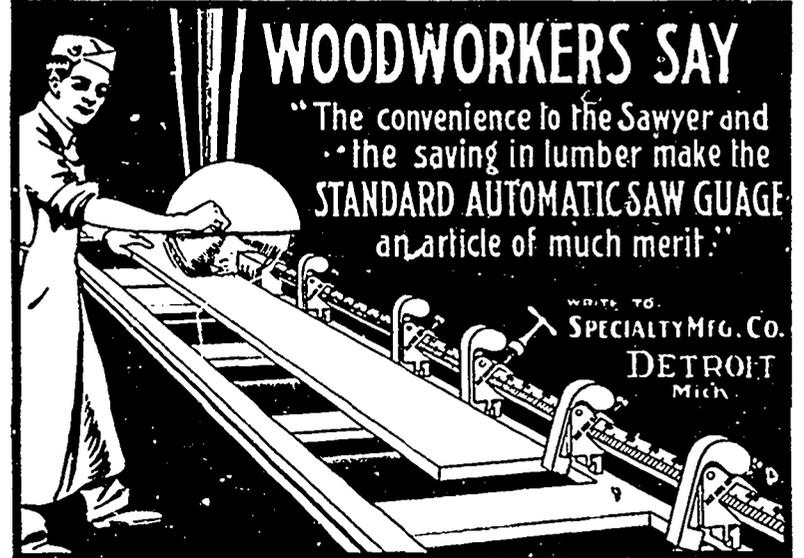
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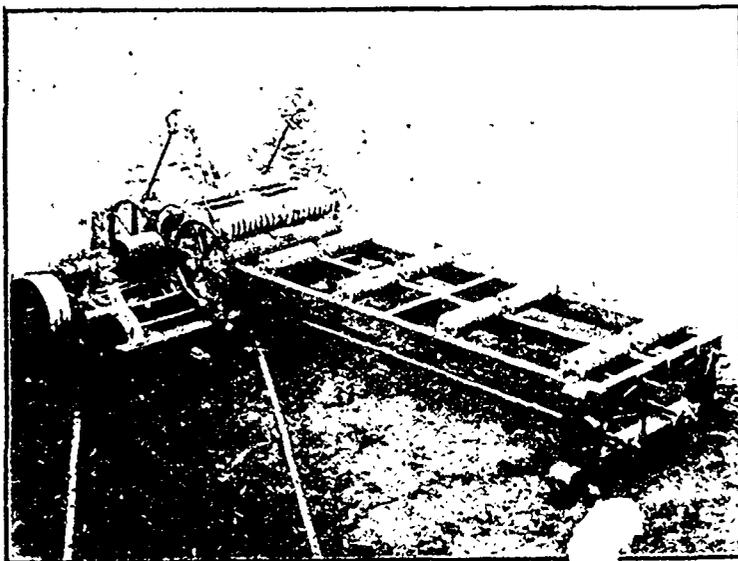
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No logging outfit is complete without a supply of reliable veterinary remedies. Getting the wrong kind means the loss of the use of your horses when time is valuable.

Johnson's Veterinary Remedies are guaranteed never to fail when used as directed. You get your money back if they ever do.

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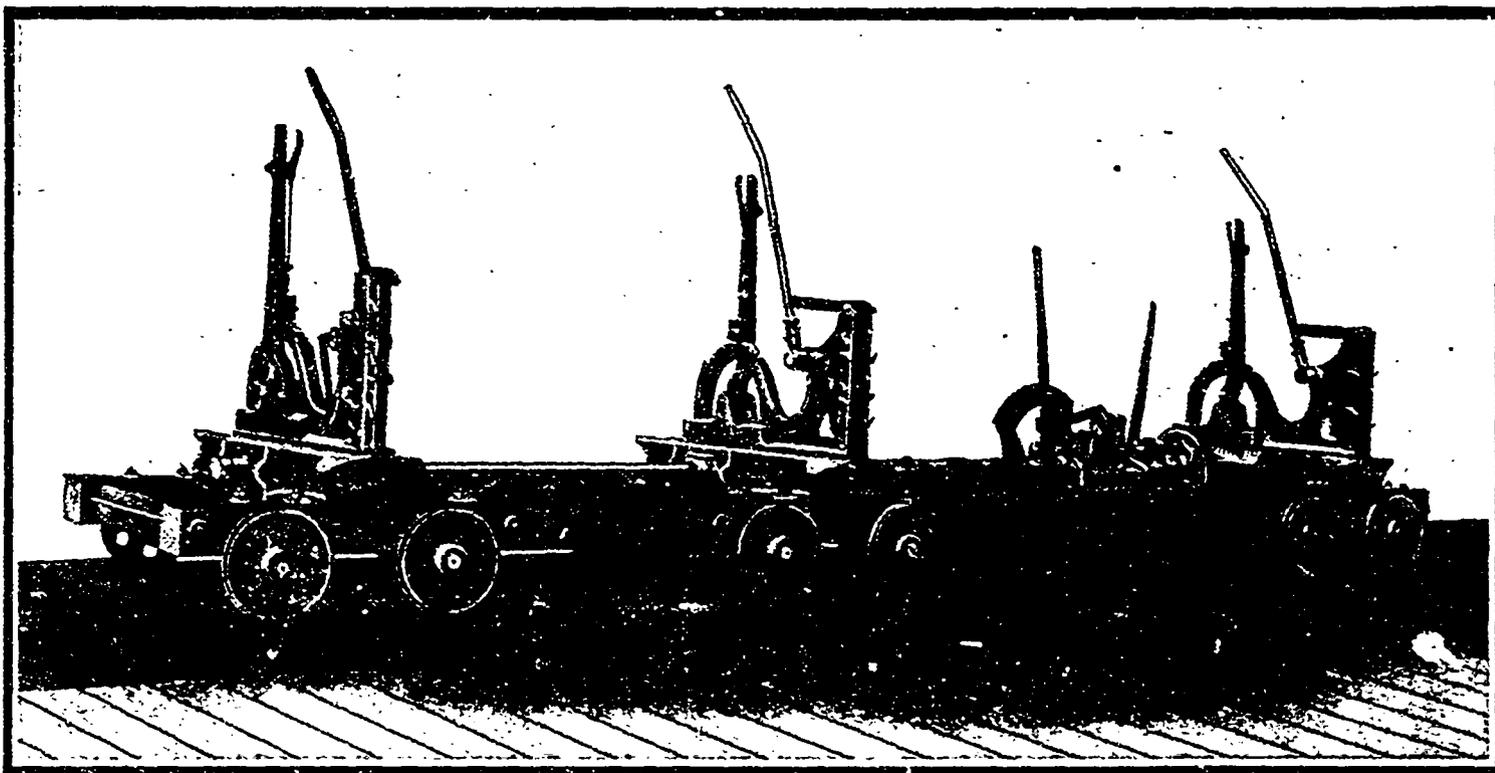
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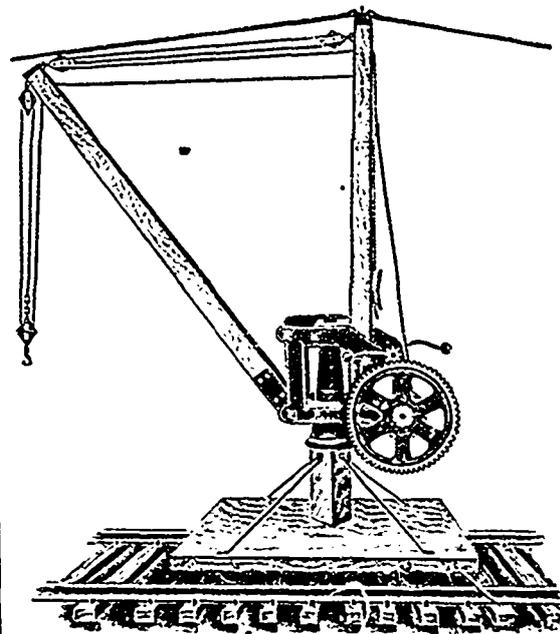
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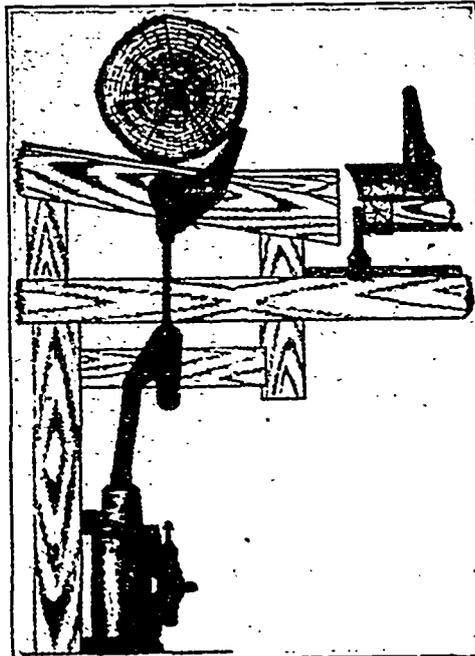
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for Hand and
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DOUBLE CONNECTED LOG STOP.

We build
Complete Mills

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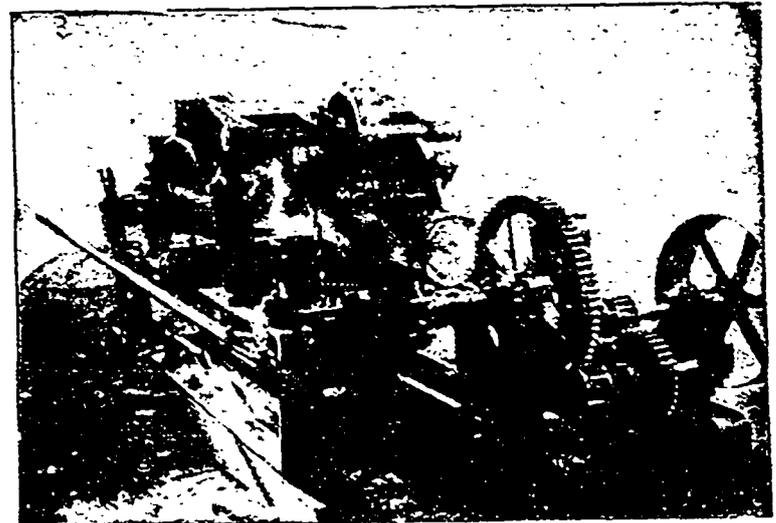
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RODGERS Adjustable Log Siding Machine

is without a peer.

This machine will slab opposite sides of a log in one operation at the rate of two thousand logs in 10 hours.



A MONEY MAKER

A MONEY SAVER

HUNDREDS OF LETTERS RECEIVED LIKE THIS :

Rock Island, Ill., Nov. 25, 1902.

RODGERS IRON MANUFACTURING CO., Muskegon, Mich.

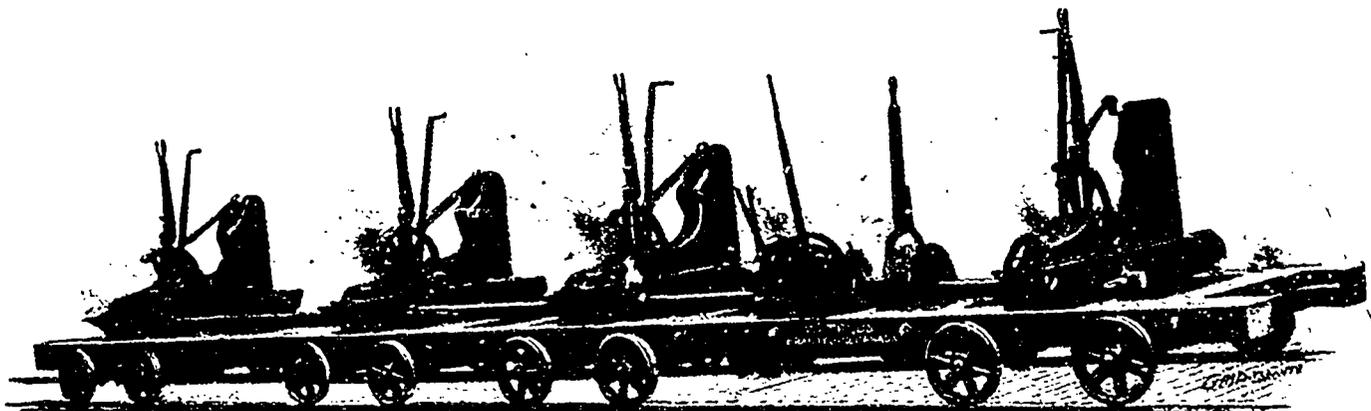
Gentlemen—Replying to yours of recent date and referring to your adjustable log siding machine, must say it has given us general satisfaction, and we have done good work with it. Any one desiring a machine of this style for the purpose of slabbing small logs, we would recommend yours. Respectfully,
WHYRIHAUSER & DENKMAN.

For full particulars and literature, mention this paper and address :

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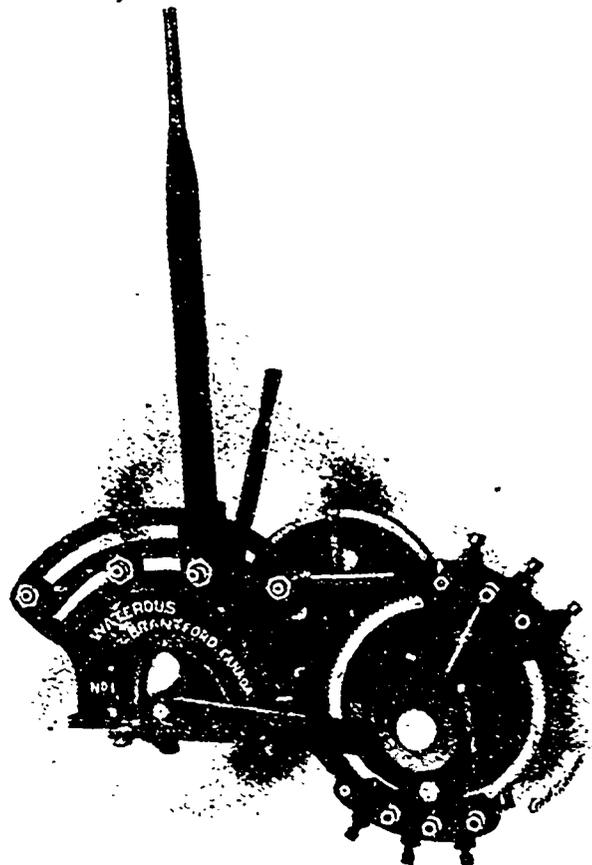
The Waterous Cast Steel Carriage

Practically unbreakable. Will stand the hardest Nigger Pounding. Frames of Oak. Upper sides faced with steel. Ends of side timbers fitted with steel plates and strongly supported to cross girts by corner brackets.

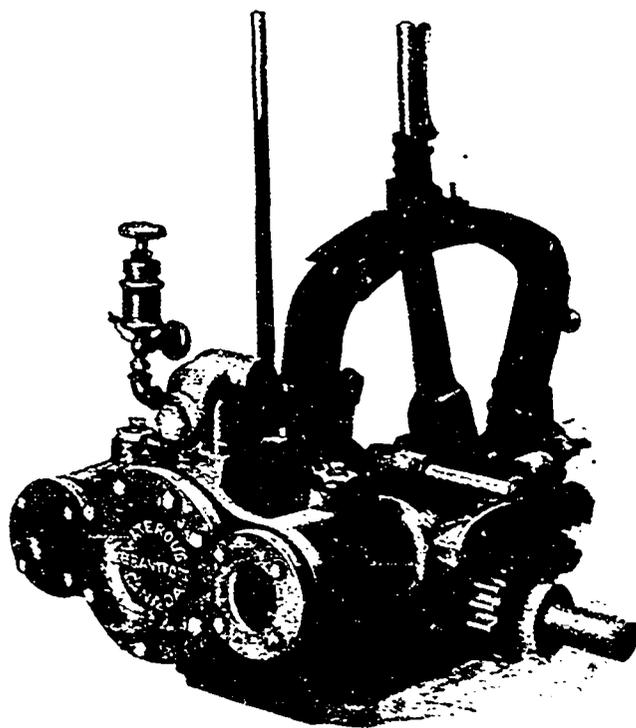


FOUR BLOCK CAST STEEL CARRIAGE WITHOUT AUTOMATIC COUPLER.

NOTE OUR NO. 2 SET WORKS, 4 INCH FACE CUT STEEL RATCHET, PAWLS FULL WIDTH OF WHEEL FACE



WATEROUS STEAM SETTER



Will increase cut from five to ten per cent. Acts instantly, never tires. Steam is supplied by telescope pipes, the main pipe fixed under carriage and pipe piston attached to carriage and connected to setter by steam and exhaust pipes.

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"STANDARD" improved trucks cost little more than the ancient styles of ten years back, and you'll find them worth a good deal more than they cost you. It is an easy matter to demonstrate that they run far more smoothly and are constructed for greater durability than any other trucks made. Ask us to prove it.

**The Standard
Channel Steel, Roller Bearing
Dry Kiln Trucks**

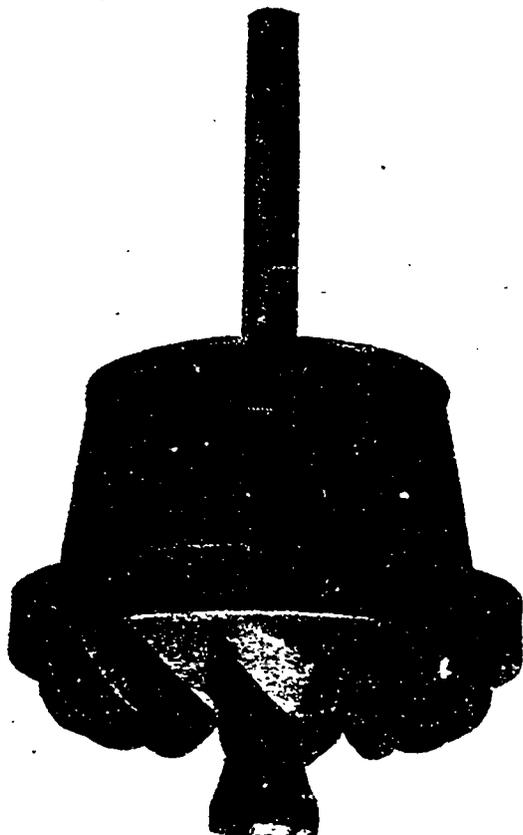
Have channel steel frames, malleable iron wheels and spreaders, steel rollers with cone-shape (anti-friction) ends, lathe-cut axles with milled ends (so you can take the truck apart without injuring the axles), and a number of other exclusive and important features of superiority.

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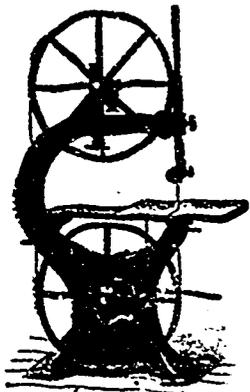
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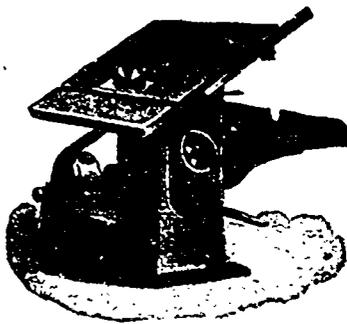
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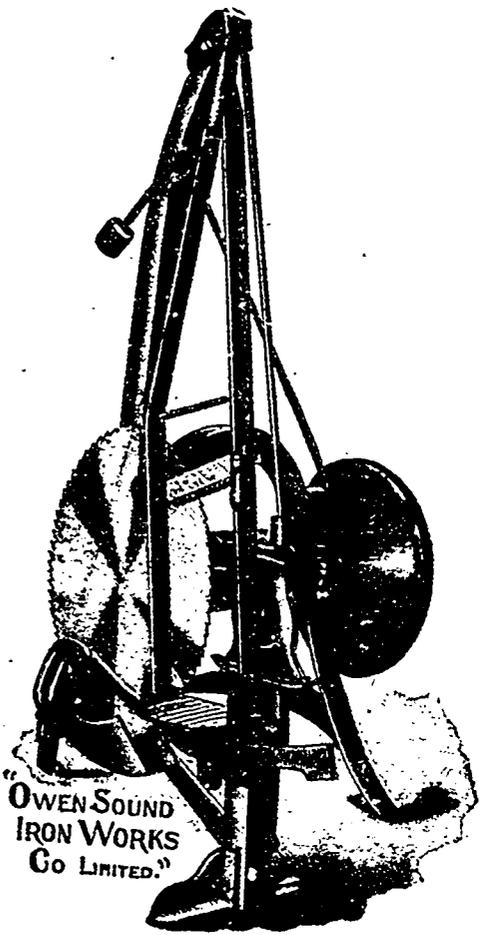
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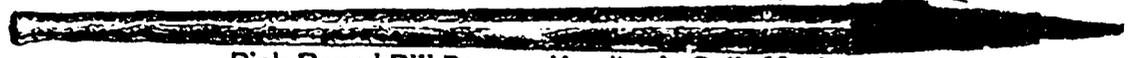


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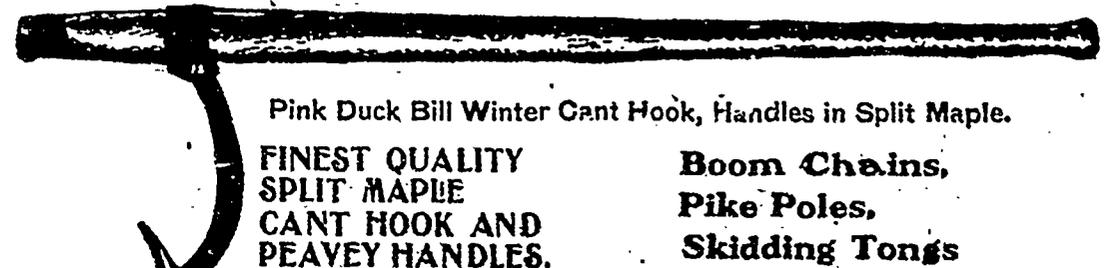
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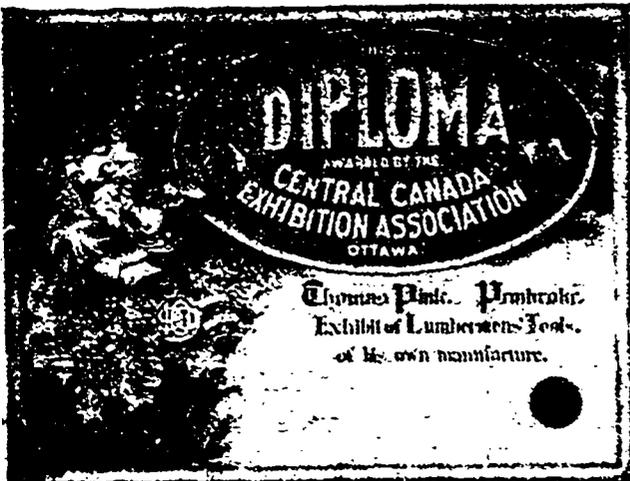
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