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CANADA LUMBERMAN

Wood-Workers', Manufacturers' and Millers' Gazette

VOLUME XXIV,
NUMBER 8.

TORONTO, MONTREAL AND WINNIPEG, CANADA, AUGUST, 1904

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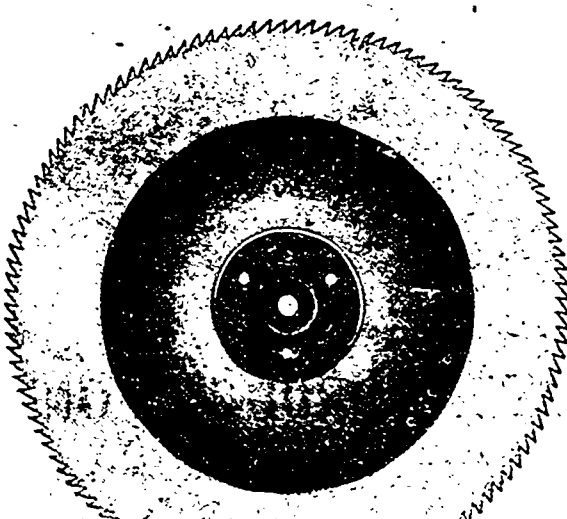
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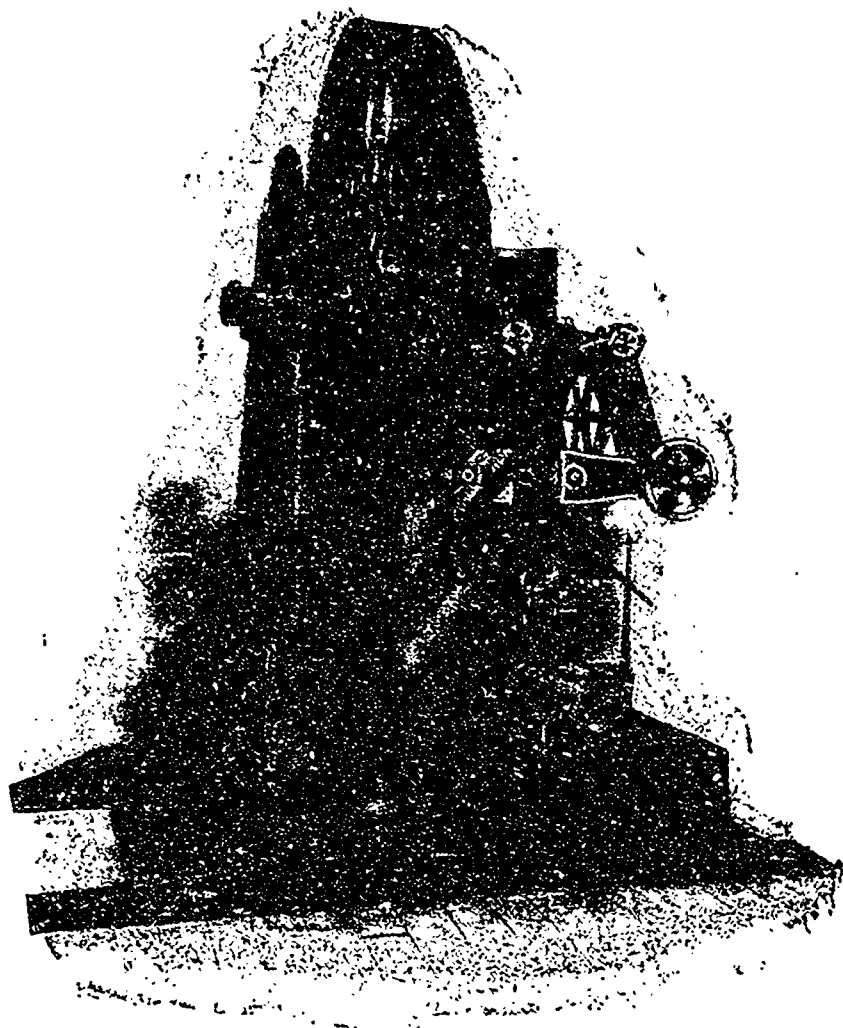
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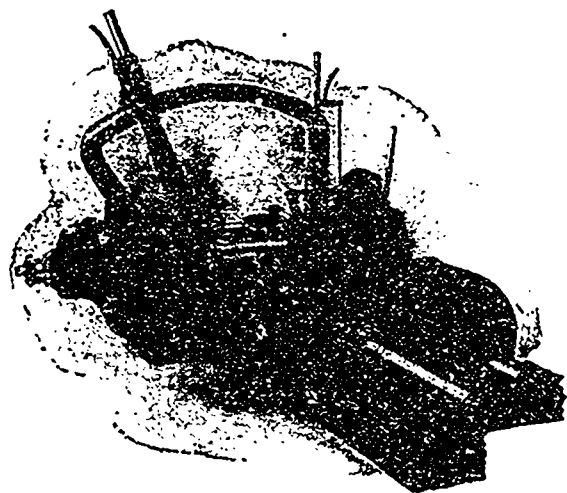
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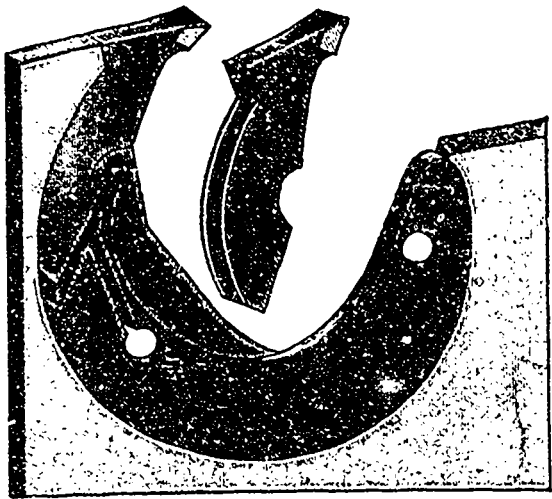
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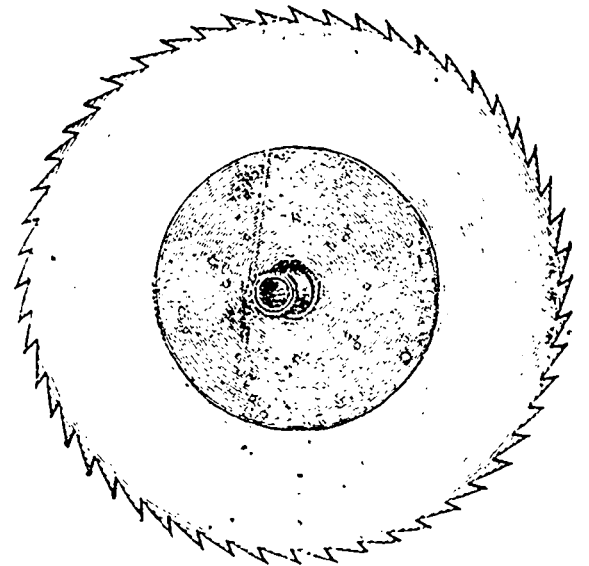
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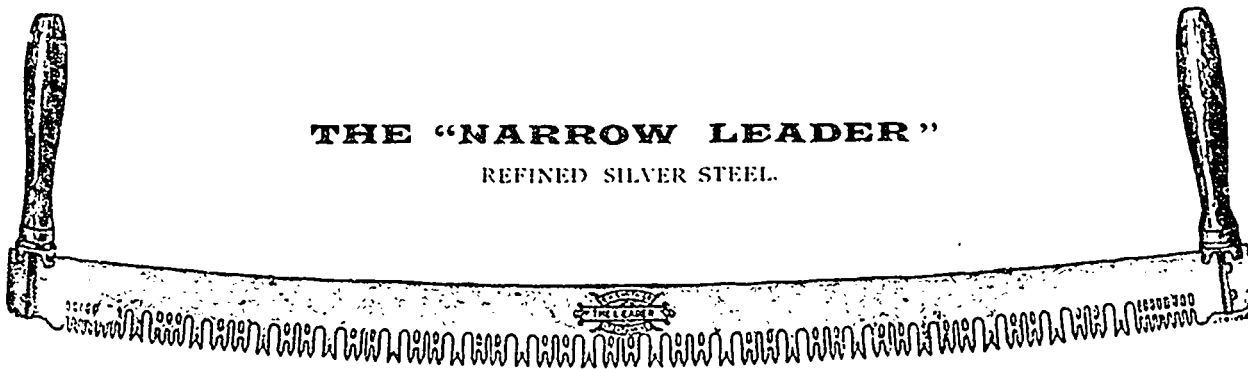
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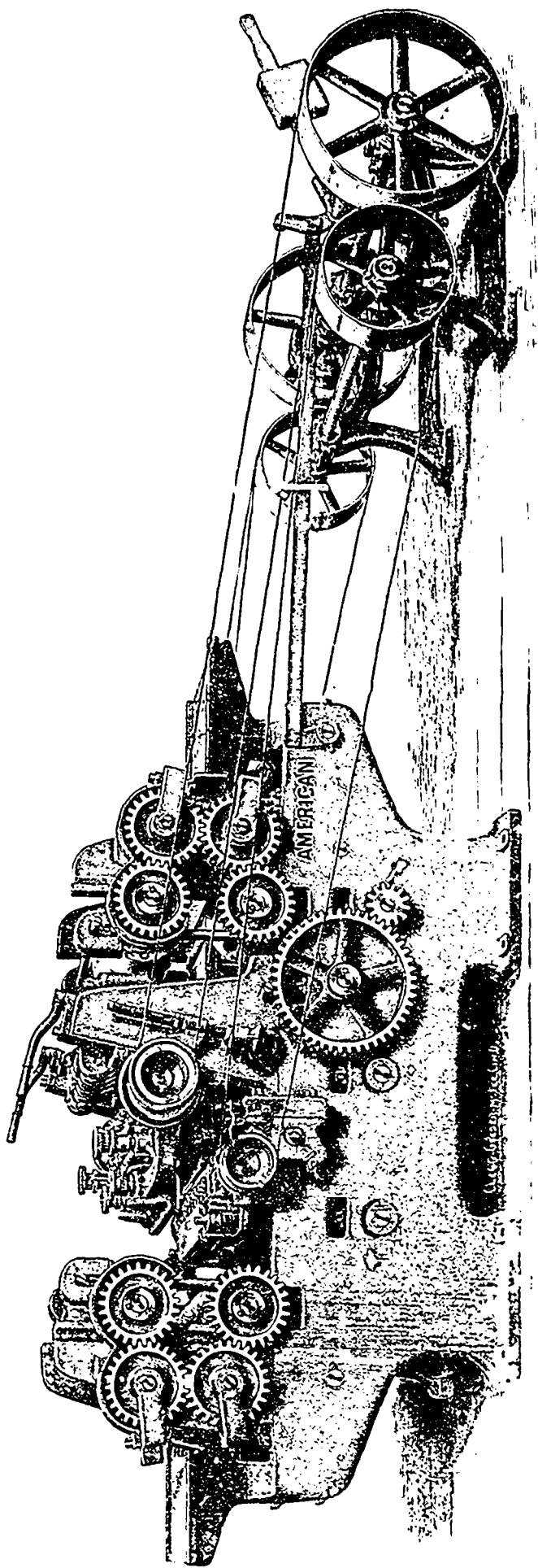
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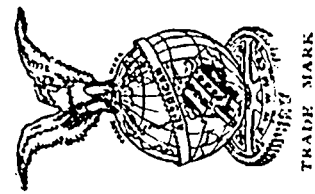
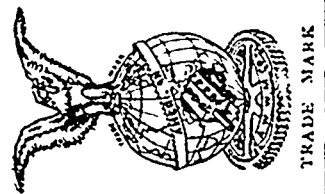


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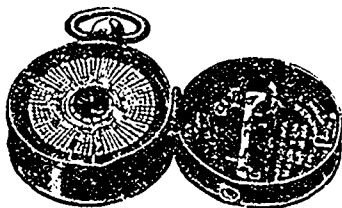
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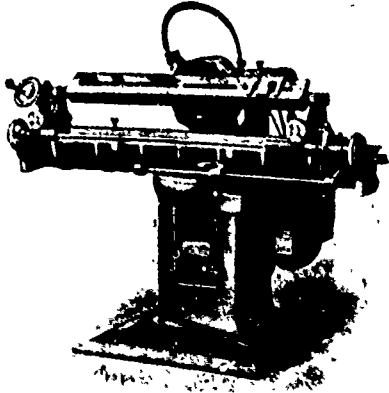
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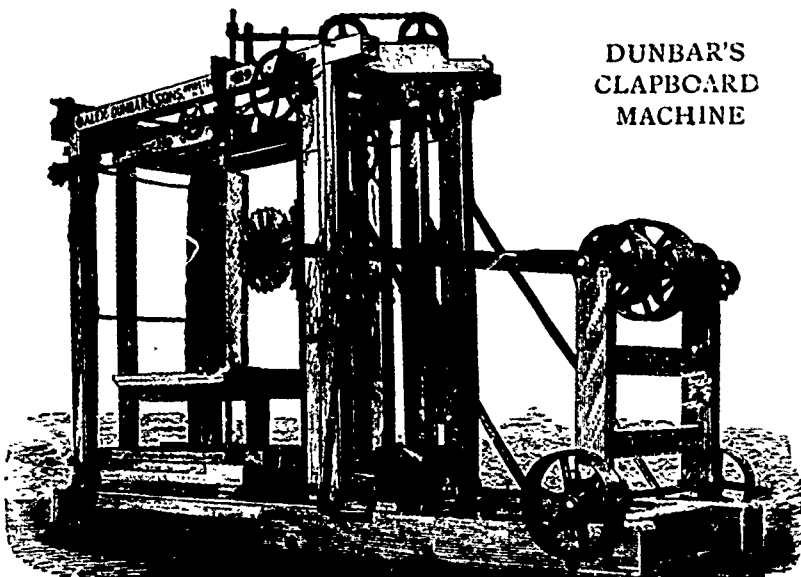
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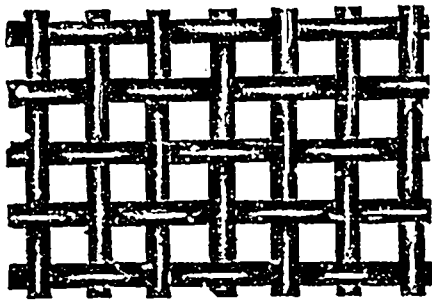
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THE CANADA LUMBERMAN

NO. XXIV.
1904

TORONTO AND MONTREAL, CANADA, AUGUST, 1904

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

PROMINENT BRITISH COLUMBIA LUMBERMEN.

MR. J. A. SAYWARD.

Mr. J. A. Sayward, who conducts the large saw-milling business in Victoria, B. C., established by his father in 1858, comes of stock who had to do with lumber. His grandfather was a shipmaster in Maine, where ships were built in great numbers, and his own father learned the trade of carpenter. He went to California in 1849, and after spending two years at Sacramento, began a lumber business in San Francisco. This he continued until 1858, when the discovery of gold in Cariboo brought British Columbia into prominence. He came north and began the business which is still being maintained in an enlarged and improved form.

Mr. Sayward's (sr.) first mill was at Mill Bay, in the Shawinigan district on Vancouver island, which was the whole of the province at that time and where the settlement was located. The mill was operated by water power, and twenty-six years ago it was removed to its present site in Victoria city. A steam plant was at that time installed, and since then this has been the motive power. It has been enlarged and improved until it has a capacity of 50,000 feet in ten-hours. A sash and door factory and planing mill, and also a shingle mill, are included in the establishment.

Mr. J. A. Sayward, who succeeded his father as head of the firm, is still a young man, not yet 40 years of age. He has been engaged in the lumbering business all his life, and has devoted his energies entirely to it. He is assisted in the handling of the office work by Mr. Walter Chambers, and an efficient staff is also employed. Speaking of the outlook this year, Mr. Sayward says: "Trade is fair this year so far. The Northwest business is not quite up to what might be expected, but we have the prospect of doing a good line of trade there. In Victoria city the building is brisk this year and our local trade is consequently good."

Shipments by sailing vessels and steamers form part of the trade done by Mr. Sayward, who has considerable of the local trade, his mill being the only large one in the city. Shipping by rail to Manitoba and the Northwest has been engaged in for the past year or two, the transfer facilities by railway barges to the mainland offering every advantage enjoyed by mills on the direct line of railroad. Mr. C. J. Archibald represents the firm in the Northwest.

The business employs some 150 men in all, and the firm operates its own camps. The tug

Hope is owned by the mill and tows the log booms to the mill. The limits owned by J. A. Sayward were secured in the early days by his father, and comprise some of the most valuable timber lands on the Gulf of Georgia islands, Vancouver island and the Mainland.

DOUBLE-CUT BAND SAWS.

The necessity of competent filers has become more apparent than ever to mill owners



MR. J. A. SAYWARD, Victoria, B. C.

since the introduction of the double-cut band saw, writes A. J. Barton, of Vancouver, in *The Wood-Worker*. How often we hear of filers who were very successful in handling single-cut saws, falling down or making a complete failure in the attempt to file one of the large double-cut mills, especially those that cut the hard yellow pitch pine and the woolly cottonwood of the Southern States and the Douglas fir of the Pacific coast.

The reason for this failure is quite clear to the progressive filer. His experience teaches that where there is an effect there must be a cause; he is always ready to learn the opinion of his brother filers and others with whom he comes in touch. These opinions and ideas, added to his own observations, and adopted and put in practical use, soon win for him success and the title of expert or master of his profession.

I will try and lay down a few points from my daily experience while a filer, which never failed to give the highest results, both as to quality and quantity of lumber, and the saving of the lives of the saws and file room machinery under my care:

My first advice is, do not try to see how long your saws will run without swaging or putting them on the bench to see if there is need of a little tension here or there, or if there be a lump that should be leveled. Do not let your grinder go day after day without looking to see if there is any loose motion in the head slides or boxes. Make a daily practice of looking over and examining your machines; see that they are all clean; take up all loose motion. Look over your band saws on the bench every second run; it will only take twenty minutes or so each time, and "a stitch in time saves nine." Don't forget that your study of little points will increase your company's weekly output; you will soon become known to your employer, and the chances of an increase in your salary will be greatly enhanced.

The most important points to be observed and practiced are, keep your saws perfectly flat, both lengthwise and crosswise, with perfectly straight edges; the latter can be best obtained by the use of a fine copper wire, say 12 feet long, held parallel with the bottoms of the gullets of the teeth for double-cut saws, as the gullets are always of an even depth if the grinding is properly done, whereas the points of the teeth vary in length according to the amount of wear from sand or other causes after each run.

Using the straight-edge against the teeth will not give such good results.

A perfectly flat saw, with a light, even tension, is more desirable than a saw so full of tension that it will be almost impossible to level it. The best results will be obtained from a double-cut saw if the blade is evenly tensioned throughout as much as will allow it to lie perfectly flat, with its own weight, upon a 6-foot leveling table. The tension should be put in with a gauge, of a perfect circle, and with sufficient amount to give the above results.

Next, use a full swage and use the shaper only. Do not gauge the teeth every time you swage, as this is not necessary to fact cutting or to smooth timber, but see that the teeth are at all times straight, and with an even, light swage. I do not mean a light corner, but a good, heavy corner, with no more spread than needed to clear the saw. The lumber will then be smoother, the saw will stand up better, there will be less wear, and the filer will have less work.

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 and May, 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.
Sawn or split boards, planks, deals and other lumber.....	\$207,405	\$260,904	\$236,800
Logs and round unmanufactured timber.....	29,894	11,062	17,885
Timber or lumber, hewn or sawed, square or sided.....	6,489	29,967	11,795
Cherry, chestnut, gumwood, hickory and white wood.....	45,861	42,633	55,561
Oak.....	122,823	137,252	125,926
Pitch pine.....	14,867	19,562	29,745
Mahogany.....	4,342	15,259	5,885
White ash.....	15,279	9,770	14,469
Walnut.....	2,855	9,259	4,161
Spanish cedar.....	342	313	317
African teak.....	1,498	316	139
Pine and spruce clapboard.....	1,651	747	361
Laths.....	3,335	7,379	4,825
Shingles.....	1,621	3,058	693
Staves.....	16,502	8,013	15,011
Shovel handles.....	6,520	2,209	2,698
Felloes of hickory, rough sawn to shape only.....	1,936	2,560	4,412
Handle, heading, stave and shingle bolts.....	4,136	1,526	4,291
Hickory billets.....	555	79	110
Hickory for spokes of wheels.....	390	253	244
Hickory spokes, rough turned.....	27,279	29,860	18,027
Hubs for wheels, posts, last blocks, etc.....	4,219	2,546	3,287
Fence posts and railroad ties.....	4,346	13,572	8,830
Total.....	\$524,265	\$604,169	\$625,382

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 and May, 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.
Planks and boards.....	\$205,830	\$347,191	\$523,091
Basswood lumber.....	332	756	425
Pine deals.....	237	1,338	7,890
Spruce and other lumber.....	.....	12,606	7,819
Laths.....	28,391	29,857	54,830
Pickets.....	238	341	6,245
Scantling.....	3,387	1,698	16,230
Shingles.....	75,578	136,429	153,137
Shooks.....	1,605	379	6,943
Staves and headings.....	4,217	4,256	8,382
Telegraph and other poles.....	1,155	4,924	1,990
Cedar and tamarac posts.....	.....	1,397	2,262
Shingle bolts.....	500	138	350
Sleepers and railroad ties.....	5,816	12,493	14,327
Stave bolts.....	701	113	163
White pine timber.....	574	.....	.....
All other square timber.....	431	507	265
Pulp wood.....	117,229	142,204	163,225
Lumber not elsewhere specified.....	3,480	5,783	14,195
Cedar logs.....	90	.....	700
Elm logs.....	44	370	70
Hemlock logs.....	576	48	15,497
Spruce logs.....	2,702	2,958	33,221
All other log.....	16,692	10,429	30,747
Total.....	\$469,585	\$716,305	\$1,062,004

A MODERN CANADIAN TIMBER LIMIT.*

No name in the lumber industry is better known than that of J. R. Booth, of Ottawa, or has a longer or more direct connection with its history and development. A visit to Ottawa would not be complete without seeing the Chaudiere Falls, which furnish such a magnificent water power, and Mr. Booth's immense sawmill, probably the largest on the continent, of 700,000 feet board measure capacity per day of twenty hours. This mill is unique also in that it is kept running both summer and winter, the supply of logs being brought in by the Canada Atlantic Railway during the winter months from the limit on the Madawaska River owned by Mr. Booth and known as the Egan Estate Limit. A visit was made to this district a short time ago by two members of the Canadian Forestry Association, with the object of getting such information as a hurried visit might permit

* Contributed to Rod and Gun by the officers of the Canadian Forestry Association.

as to the condition of the forest and the method of management.

Leaving Ottawa by the Canada Atlantic Railway, and passing through the agricultural counties of Carleton and Renfrew, at a distance of about one hundred miles from the city the country begins to change its character. Settlement becomes more scattered, the ground more rough and hilly, coniferous trees appear here and there in clumps, the rampike begins to make itself a feature of the landscape. From Barry's Bay to Ayle Lake the green of the new growth breaks the hard lines, but for the ten miles from Ayle Lake to Madawaska there is nothing to relieve the bareness of the scene. On each side of the track the forest of rampikes stretches away, blackened, barren, desolate, yet bearing mute witness of the noble forest which had occupied the land before the fires destroyed its beauty and its riches. These fires are not all caused directly from the railway, and the management of the road being controlled by a lumberman,

great care has been exercised both in construction and operation to prevent danger from this source. But the easy access permitted by means of the line increases the risk from other sections, and fires start in proximity to the railway frequently though as a rule they are kept sufficiently in check to prevent serious loss. One fire can, however, do damage that a century cannot repair. When a fire occurs the staff, not only of the lumber camps, but also of the railway, is called out and everything else is subordinated for the time being to the necessity for preventing the spread of the conflagration. A determined fight was required during the dry months of the spring of the past year to control the fires and to prevent the destruction of the village of Madawaska.

The Egan Estate Limit, which covers an area of 333 square miles, is situated both north and south of the railway line and on the north touches the limits of Algonquin Park. Operations have been carried on by the present proprietor for a period of forty years and, although the cutting has not been done as severely upon it as upon some other limits, still it has usually amounted to eight to ten million feet board measure per annum, but the resources of this limit will permit of the cutting of a similar quantity for possibly thirty years more. What the possibilities are after that period has elapsed only a careful examination of the whole area would give the data to decide, but a description of the present stand and methods of lumbering may present some facts that have bearing on the question.

From west of Madawaska, which is located about the centre of the limit, a logging road runs in a distance of about ten miles to the north, where operations are now being carried on. The district which is being lumbered covers an area of about six miles, but the forest is as nearly pure as can be found anywhere in Canada, of pine of the best size and quality. The stand would in parts at least reach 20,000 feet, b. m., to the acre, the trees being one hundred feet and upwards in height, while the general diameter of the logs ranges from sixteen to thirty inches. An examination of the annual rings of several logs showed an age of 120 to 180 years. Scattered among the pine, but not forming any important part of the stand, are white birch, balsam and hemlock, none of which have attained to a large size. Along the low grounds the black spruce is found, but nowhere in a continuous stand and the average diameter does not exceed eight inches, with a height of 60 to 70 feet.

The compactness of the area on which operations are conducted permits of easy access by rail. The trees are felled by sawing. A notch is cut with an axe on the side to which the tree is to fall and the saw is used to cut in from the opposite side. Inch by inch the saw eats its way through the great trunk, the top begins to waiver, it slowly inclines, a crack is heard at the stump, the men stand clear, slowly and majestically at first the monarch of the forest bows his head, but with ever increasing speed till at last it crashes swiftly down, creating a miniature snowstorm, and bearing down the small trees in its path. The work of a century is brought suddenly to an end, but only to be

changed into new forms and to complete more fully its sphere of usefulness. After the trees are felled they are cut into logs of proper length with the saw and those that are of sufficiently good size and quality may be made into timber, square or waney. They are then drawn to the rollways, to which roads are cut, and from which they are carried by sleighs to the railway. There by team loaders they are elevated on flat cars and transported to their first destination. The logs will be sawn into boards at the mill at Ottawa. The timber will be taken to Coteau and rafted by the St. Lawrence to Quebec, where water delivery will be given to vessels supplying the old country market. The deftness and skill with which the makers of square or waney timber can smooth the side of a log with no other tool than the broadaxe, so as to equal the work of the best plane, is beyond conception to one who has not seen the operation. So expert do they become that one of them was prepared to wager that he could smooth a log as well with his eyes shut as with them open. Time did not permit, however, of putting him to the test.

The cut is practically a clean one. All the pine is ready for the axe and when a tract is cut over nothing is left but a small and scattered stand of birch, balsam and hemlock. The land is hilly, the elevations being considerable and in some cases quite abrupt. The soil is, so far as could be ascertained, light and stoney, and unfitted for successful agriculture. There are a few farms located within the bounds of this limit south of the railway, and for a few years, before the forest soil is exhausted, the returns seem to indicate that agriculture might be successfully carried on, but continued cropping soon demonstrates that permanently profitable occupation of these lands for farming purposes is impossible.

At the lumber camps visited the only wood taken out in addition to the pine is the yellow birch. This is found mainly on the hardwood ridges cresting the hills, where the coniferous forests change to one of almost pure hardwoods, comprising yellow birch, maple, elm and ironwood. Of these the yellow birch forms the finest and largest trunks, some logs reaching thirty inches in diameter, while the average is sixteen to eighteen inches. These trees are cut into deals for the British market, where, it is stated, though no doubt the allegation is slander, they undergo a transformation and appear in furniture as cherry or even mahogany.

To return to the question as to the future possibilities of this limit, it may be set down as distinctly settled that no such stand of pine as is now found will be reproduced. A cycle of 120 to 180 years is greater than can be again allowed. The timber must be grown at a faster rate and in a shorter period. But shortened as it may be it can hardly be much less than one hundred years to give lumber of proper value and get the best returns. This is why devastation by fire is so harmful and why the problem is one that requires early consideration. That the pine is reproducing itself naturally is certain. To what extent or how far the process has advanced there was

no opportunity to ascertain, but careful and thorough studies of selected areas such as this limit presents should be made, as in no other way can the necessary data on which to base methods of permanent management be obtained. This is a matter that should be taken up by the government and the lumbermen in co-operation so that both scientific and practical knowledge may be brought to bear upon the question. As the pine is a mature and even stand, the method of clean cutting is the best and only one, but a study of the process of reproduction might suggest some modifications that would help to this end. Accurate, definite, scientific knowledge of the physical, natural and economic conditions is what is required and this can only be gained by full and close investigation of concrete cases, and of the forest as it now exists and is being exploited.

This sketch of lumbering operations would not be at all complete unless some description was given of the shanties themselves. The

which is at times somewhat embarrassing. They are a strong, sturdy class of men, for whom it is to be hoped Canada will always have room and for whom in her perpetuated forests the health giving and strength-developing labor which the lumber business supplies may always be furnished.

FOREST FIRES.

Forest fires have visited several of the provinces during the past month. Thousands of acres in the vicinity of Sydney, Nova Scotia, have been devastated, the loss reaching about \$200,000. In British Columbia much timber in the vicinity of Wulffshon Bay and Gordon Pasha Lake has been burned, and back of Ladysmith the destruction has been considerable. Early in July bush fires were raging in the Baie des Chaleurs district of Quebec, and all the buildings surrounding King Bros.' mills at Pabos were destroyed, including the residence of Mr. McNaughton, the manager. Only herculean efforts on the part of the em-



A LUMBERMAN'S SHANTY ON MR. J. R. BOOTH'S LIMIT, MADAWASKA.

picturesque log shanty is here becoming a thing of the past. Logs are too valuable to be used whole for this purpose any longer and the shanty buildings are made of boards shipped up from the mill at Ottawa. The buildings in which the men sleep are well built and comfortable, are commodious and well ventilated and the double row of bunks down either side make very good quarters. The cook's domain is in a separate building, which also forms the dining room for the men. The fare supplied is of good quality and of sufficient quantity and variety to satisfy any reasonable, or perhaps even unreasonable person. The complaint of a wife of a shantyman who lived in Ottawa, that she could never supply things to please her husband after he came down from the shanty, may therefore have had some other animating cause than the contrariness of the male animal in general when he thinks that he has the opportunity of making a show of an authority which he does not really possess.

The typical shantyman is good-natured and friendly in disposition, ready to give help or information, open in character and with a weakness for getting his photograph taken,

ployees saved the extensive mills. It is estimated that the loss to timber lands and buildings in Quebec is \$200,000.

In accordance with the established policy of the Ontario Crown Lands Department regarding the safeguarding of the province from fire, a regulation has been adopted which will be inserted in the agreements of all railway companies building railways through the newer districts of Ontario. The regulations consist of two clauses, one of which is:

"It is hereby agreed that wherever the line of construction of said railway runs through lands of the Crown which are not covered by timber license, and the government deem it proper for the protection of the forest wealth adjacent to the line of construction to place on duty a staff of fire rangers for the protection of timber, it shall be at liberty to do so, and all expenses incurred thereby, whether for or in respect of men's wages, or any other services, shall be borne and paid by said railway company."

The other clause is similarly worded, and provides for protection of timber under license. By this means the control of fire protection is kept in the hands of the department, which with its experienced ranging staff, will be able to look closely after the work and see that adequate protection is afforded.

BRITISH COLUMBIA SAW MILLS

Photographed and Described by Our Travelling Representative.

THE ELK LUMBER & MANUFACTURING COMPANY.

The operations of the above company in British Columbia date from July, 1903, when the company was organized with a capital stock of \$250,000. The saw mill of the company is shown in the accompanying illustration. It is located on the Elk river one-half mile to the west of Fernie on a section of the company's property of 200 acres of crown-grant land. It is 30x130 feet long and is equipped with circular trimmers and the usual saw mill machinery. The planing mill attached is equipped with two planers manufactured by Cowan & Company. The capacity is 25,000 feet per day.

The principal timber manufactured by this

THOS. KIRKPATRICK.

One of the finest shingle manufacturing plants along the Pacific Coast is that owned by Thomas Kirkpatrick and situated on the south side of Burrard Inlet, in the small township of Hastings, four miles east of Vancouver. The plant is situated in a large yard occupying 500 feet of the water front and running back to the main line of the C. P. R. It consists of two mills, a small one and a large one. The small mill is 51 feet long by 28 feet broad and is fitted up with three Dunbar shingle machines from Woodstock, N.B. Connected with it is a boiler room 28 x 21½ feet equipped with one engine, one boiler and a dynamo for the supplying of electric light, enabling the owner to run day and night during the busy season.

with the other plant makes a total daily output of 175,000 shingles.

This vast output, which usually figures out at about 50,000,000 a year, is marketed mostly in Ontario, New England States and our North-west Territories at the rate of one car per day. To meet the vast demand made upon his mills Mr. Kirkpatrick lately purchased 3500 acres of first class red cedar on Jarvis Inlet and Howe Sound, B. C.

Like many more successful western men Mr. Kirkpatrick hails from Nova Scotia, coming to Vancouver in the year 1886. In 1890 he purchased a site at Cedar Cove and erected a shingle mill, which he operated until it is burnt out in March, 1902. From the beginning his business steadily increased until in 1900 he purchased the mill owned by the late A. McNair situated at Hastings, this being part of his present property.

THE LADYSMITH LUMBER COMPANY.

The operations of this company, which started about two years ago, have been accompan-



SAW MILL OF THE ELK LUMBER & MANUFACTURING COMPANY, FERNIE, B. C.

firm is cedar, which constitutes fifty per cent. of the total manufacture. Besides the cedar a good deal of spruce, fir, and tamarac is also manufactured. The logs are cut on the company's own limits of 16,000 acres of land in the Elk river valley.

Seventy-five per cent. of the output goes to the Territories and Manitoba, the other twenty-five being distributed locally and around the mines.

As the property was only purchased July, 1903, from Mott, Sons & Company, the company purposely delayed any extensions or improvements until the result of the first year's working was shown. The result was very encouraging, and in view of the fact that the North-West market is going ahead by leaps and bounds, the company have decided to build a double cutting band plant, with a capacity of 125,000 feet per day.

The officers of the company are: O. A. Roberson, president; D. V. Mott, manager; J. C. Wood, F. Barrows and W. P. Dutton.

There is also a bolt room 25 x 25, a dry kiln 70x18 feet, and four sheds.

The large mill, which was only constructed eighteen months ago, is 32 feet long by 75 feet broad and is equipped with five shingle machines, four of which were manufactured by the local firm of Letson & Burpee. Adjoining it is the boiler room 48 x 18 feet, equipped with one Wm. Hamilton boiler, and the engine room 26 x 22 feet, fitted up with one Dunbar engine. There is also a bolt room 25 x 25 feet, one dry kiln 100 x 24 feet, and two sheds of 30 x 24 feet and 70 x 30 feet respectively.

The daily capacity of the small mill is 20,000 shingles and the large one 30,000, making a total output of 50,000 shingles a day of ten hours.

Mr. Kirkpatrick also owns a large mill formerly owned by R. Welsh at Westminster, the main building of which is 80 x 28 feet and possessing a huge dry kiln 87 by 27 feet. It is equipped with five shingle machines, three from Shaackes, of New Westminster, and two from Letson & Burpee, of Vancouver. The capacity is 125,000 per day, which in conjunction

ied by a series of energetic developments culminating in making its mills among the largest and most prosperous to be found along the coast of British Columbia. Last year, notwithstanding the burning of their lumber mill on June 1st, the company shipped east by December 31st 6,100,000 feet of lumber, 5,000,000 lath and 5,086,000 shingles. In connection with the latter shipment, it should be stated that they only commenced the manufacture of shingles on June 1st, their new shingle mill being opened—fortunately for the company—on the same day they had the misfortune to lose their lumber mill.

Their lumber mill has been re-opened, its capacity having been doubled in rebuilding, but the company, not content with this increase, purpose—provided the Government can be induced to grant some adequate protection against our American competitors—to erect in the course of the next year another mill with a capacity of from 70,000 to 100,000 feet per day.

The lumber mill is situated four miles south

of Ladysmith, on the E. & N. Railway, and is equipped with thoroughly up-to-date machinery and requisite appliances of a first-class plant, including planers from McGregor-Gourlay Company, of Galt, and engines built by the Albion Iron Works, Victoria. Among its specialties is a battery for manufacturing flooring made and invented in Wellington, capable of 30,000 flooring a day.

A shingle mill is situated in Ladysmith ad-



ON THE LIMITS OF THE LADYSMITH LUMBER COMPANY, LADYSMITH, B. C.

joining the Tye smelter, on the water front of Oyster Bay, with the tracks of the E. & N. Railway in its rear. It is considered one of the best on the Coast and was designed and built by Mr. W. H. Welbon, of Vancouver.

All the timber supply is obtained on the company's own limits, Crown granted lands, and consists chiefly of fir, spruce and maple.

The nestor of the company can be justly considered Mr. J. W. Cockburn, the manag-



ON THE LIMITS OF THE LADYSMITH LUMBER COMPANY, LADYSMITH, B. C.

ing director. He is an Ontario product, and is possessed of all the energy, vim and snap usually associated with the inhabitants of that province, he being ably assisted in his work by Mr. William Munsey, president, and Mr. W. Telford.

At the present time the company employ 100 hands, but with present prospects fulfilled, there is every reason to believe that this number will have to be materially augmented in the near future.

THE KING LUMBER MILLS.

The lumber industry of British Columbia has grown very rapidly during the past few years, this being especially evident in the East Kootenay district along the line of the Crows Nest Pass Railroad all the way from Kootenay Landing to Fernie. Of the many new companies starting operations in that section the King Lumber Mills, Limited, have shown themselves among the most enterprising. The company was organized in the year 1902 as the King Mercantile Company of Cranbrook, continuing under that title until June of this year, when a charter was obtained changing the title to the present one.

The company owns two mills and a planing mill situated three miles west of Cranbrook on the Crows Nest Road. The planing mill lies right on the track, while the mills are one half mile and one and one half miles due north from the railroad respectively. All the manufactured lumber is transferred to the planing mill by a log tramway.

The upper mill, which is one and a half miles from the track, is 35 x 100 feet and is situated along the shores of a lake which provides a natural reservoir for the logs. It is equipped with a circular saw and the usual sawmill machinery and has a capacity of 40,000 feet per day of ten hours. Driving power is obtained from one engine of 100 horse power and one Leonard boiler.

The lower mill is a portable one with a daily capacity of 25,000 feet.

The planing mill occupies a site of twelve acres right along side the track, all the lumber manufactured by the company being piled here for shipment. It is a two story building 25 by 100 feet and is equipped with four dimension

large mills there. He came to British Columbia in the year 1900, entering the mercantile business in Cranbrook. However, as his tastes all lay with the lumber industry, he left this in 1902 to commence operations with the company's present properties. He is about to commence



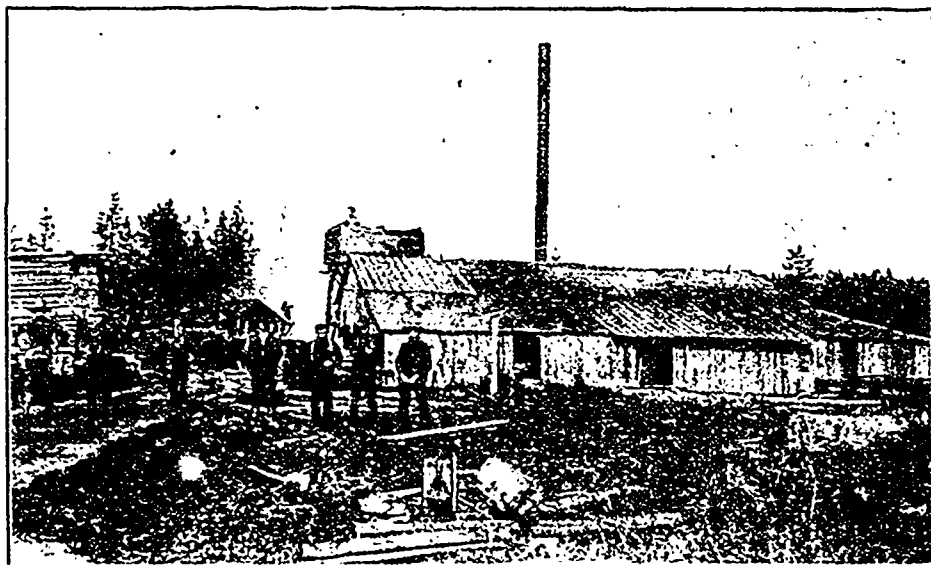
THE KING LUMBER MILLS, LIMITED, CRANBROOK, B.C. DRAY LOAD OF LOGS SCALING 3,200 FEET.

the building of a large mill at Yahk with a capacity of 40,000 feet per day.

THE CLOVERDALE MILLING COMPANY.

The above firm commenced operations in August, 1900, running the mill for one year and then selling out to the leading stockholder, Mr. W. E. Laking, the present owner, an experienced lumberman hailing from Ontario. The mill is situated on the Great Northern Railway at Cloverdale in the Westminster district, and possesses splendid facilities for transportation by rail. It is given over entirely to the manufacture of cedar shingles, which are so excellent in quality as to command a sale for almost the entire output in Ontario. Quite a goodly number too are sold in Iowa, Nebraska, Wyoming, Utah and other middle west states.

The main building is 80 feet long and 40 feet broad and is equipped with two shingle ma-



CLOVERDALE MILLING COMPANY'S SAW MILL AT CLOVERDALE, B. C.

planers, sutfacer, matcher, sticker, band saw, rip saws, etc.

The principal timber cut by this firm is tamarac, which constitutes 60 per cent. of the output, fir following with thirty per cent. and white pine with ten per cent. All the logs cut are obtained from the company's own limits, which consist of 21,000 acres around Cranbrook and Yahk.

The board of directors consists of Senator A. A. King and family and his brother, Dr. King. Mr. M. B. King, the manager, was raised in Chipman, N B., where he engaged in the lumber industry with his father, who has

chines and all the other machinery found in a thoroughly modern shingle mill. The boiler house which adjoins the mill is built of iron and brick, being thoroughly fireproof. It is equipped with one 60 h. p. boiler and one engine. A dry kiln 20 feet by 50 feet takes care of the output, which is 50,000 a day. No mill in the entire province or on the continent can be said to possess more protection than this mill in the shape of fire apparatus, although it is fully twelve miles from any body of water. So thorough is the protection afforded that inside the space of a few moments the entire property can be flooded with water.

PETITION OF THE LOGGERS OF BRITISH COLUMBIA.

The loggers of British Columbia who have petitioned the Government for the repeal of the act prohibiting the exportation of logs have prepared the following statement of the conditions governing the logging industry:

A petition addressed to the Government of British Columbia is now being circulated praying that the embargo on logs be removed and that free access to the markets of the United States be allowed the loggers of British Columbia. In support of that petition it is proposed here to set forth as briefly and concisely as possible the present condition of the logging industry and its relation to the general welfare of the whole people.

It is a fact, and freely admitted, that the logging industry is to-day in very bad shape. The market is limited and the price of the rougher grade of logs is below the cost of production; further, owing to the lessened demand for rough lumber and common building material it is now almost impossible to sell rough or merchantable logs on the Coast of British Columbia at a profit. Particularly does this apply to cedar, as there are to-day millions of feet of cedar logs lying in the water at and near Vancouver for which no demand can be found. A large percentage of these cedar logs belong to the mills and are not being cut up simply because there is no market for lumber of this grade.

Such being the facts, it can easily be understood how almost impossible it is to sell to them a grade of logs that they are already overstocked with.

The question naturally arises: Why were logs in such demand eighteen months ago and what has caused this heavy slump? There are a number of causes, one perhaps being the excessive output of logs last year when prices ranged much higher and demand was good, but the principal and most important one is the large increase in the number of mills throughout the Kootenays. There is now invested in the lumber business there no less than \$5,000,000 and the number and capacity of these mills is still growing. Many of the larger mills, equalling in equipment and capacity the mills of the Coast, have operated for the first time this summer.

Logs can be delivered at these mills at from \$1.00 to \$1.50 per M. cheaper than on the Coast, wages are as low if not lower, and they have a less freight rate of about \$4.80 per thousand on rough lumber shipped to the North-West Territories. This practically gives the market for rough and common lumber into the hands of our countrymen in Kootenay and is largely responsible for the lack of demand for rough and merchantable logs here. It must be remembered in this connection that their timber is mostly small and rough and that for this reason the Coast still has the bulk of the trade for finished material, such as flooring, stepping, siding, mouldings, etc.

Such being the case, the Coast logger must find another and larger market for his product or cease to operate.

It is useless to theorize or talk cheap senti-

ment, the facts are as given above, we must have a further market or suspend operations.

What effect has the present situation on the people of British Columbia?

First, let us look at it from the loggers' standpoint: He is losing money, he is seeing the hard earned accumulations of years of toil slip through his hands despite his best efforts, with a certainty, if no relief is forthcoming, of going insolvent; "going broke" it is called, and going broke he is. The merchant, wholesale or retail, in whatever line he may be, is to-day feeling very keenly the depression in the logging business, camp accounts are not being met, money is scarce, and the whole city feels the stagnation in this most important industry. Workingmen are idle in Vancouver by hundreds, with every possibility of their number increasing, wages are necessarily lower, and employment hard to get.

Some of the mills are holding millions of feet of rough logs that they will not cut and if permitted would gladly turn them into cash by towing them across to the American side. The Government of British Columbia is losing a large amount of stumpage owing to the fact that the rougher class of timber is at present left in the woods there to rot or burn up.

One-third of the cost of logging is incurred in putting in skid roads and this rougher timber could be taken out if there was any demand for it, but the majority of the loggers to-day are forced to leave it in the woods, where it must inevitably go to waste, a complete loss to the country and to the logger, who is unable to get the profit he would obtain under an open market on this class of timber; and besides he is unable to use his skid roads and other necessary improvements to the fullest extent, thus losing a considerable portion of the returns he should receive for his outlay in road building, etc., which is, as shown, a heavy item of the expense necessary to procure logs, as all practical loggers and woodsmen know. In all common sense why not sell this timber to the Americans? They have an unlimited market, can saw and sell timber that is worth nothing to us and will be worthless for many years. The logger will profit, for it will allow him to log and sell his entire limit and give him a larger and steadier market. The workingman will have employment all the year at good wages. The tug owners and all their employees will be busier than ever before. Vancouver and the whole Coast of British Columbia will at once feel the effect of the good American money put into circulation here.

We are told that we must protect the mills of this country by not allowing the export of logs. Now, in common sense what benefit is it to the mills to keep logs in British Columbia that they don't want and cannot cut and find a market for; they have tried hard to have a duty put on lumber but without effect, they simply say they will not bid on a boom of rough logs as they do not want them.

This being the case, and it is the case, as anyone familiar with present conditions knows, why not sell to the United States at a profit what we cannot use at home.

There is also another phase of the question

that has not been touched upon heretofore and it is this: The average cost of logs delivered at Vancouver or similar points is \$5.00 per M., paid out for supplies, wages and towing, all going into the pockets of white men and freely circulated through the community. The cost of sawing these logs into rough lumber is approximately \$1.75 to \$1.85 per M., if cut in a modern and well equipped mill. Of this amount at least 50 per cent. goes to pay for Chinese, Japanese and similar labor who are of little value to this country, if indeed not a menace to our entire social system, leaving proportionately 85 to 90 cents per M. in payment to white labour and for supplies. We are asked to sacrifice a \$5.00 industry to protect a 90 cent one, and further I think that it has been clearly shown that the 90 cent industry rather than suffering by export will really benefit.

We have no quarrel with the millmen on this question; we only ask the Government of this country for common fair play outside of a combine. If the mills here cannot buy our logs at a living price then let us sell to those who will; that is all we ask, and is it too much? But says a critic, "we hear that the United States camps are shutting down, that there is an overproduction of logs in the State of Washington, how can you sell your logs there when the United States logger cannot, and you with the disadvantage of a 50 cent greater tow." Just briefly we will put that question to rights. On the American side stumpage is \$1.00 to \$2.50 per M., here 50 cents, an advantage of from 50 cents to \$2.00 per M., also we can log a great deal cheaper owing to the greater amount of virgin territory and the shorter haul. In other words, we have vastly more timber than the State of Washington and it is closer to the water.

Also the loggers of the Sound, being wise in their day and generation, have formed a very strong association and sell their logs at a stated price according to the grade; if the market is overstocked they shut down their camps until it has righted itself, but still hold up the price.

And right here it may be said that if the British Columbia Loggers' Association is to be an institution of strength and a support to the logger at all times it must be reorganized on a new and stronger basis. When the need for action arises, as at the present time, it requires a long period of depression to bring them together with a united front. Something on the same lines as our Yankee friends have formed is required, modified and changed perhaps in minor details to suit the different conditions existing here.

To continue, however: Those who are fortunate enough to hold Crown granted land in British Columbia secured subsequent to 1887 are now exporting their logs to the United States, and it is common knowledge that the price nets them from \$1.00 to \$1.50 more than the same grade here, the strong point being, however, the possession of a larger and steadier market, and their scale is 15 per cent. better than we get in British Columbia.

Another reason for cutting the timber and converting it into cash instead of saving it for

future generations of Japs and Chinese to work up in the sawmills, is that as most people are aware there is in say a period of ten years more timber in the forest consumed or destroyed by fire than there is cut down and converted into logs in a similar period, so that delay in getting out the timber and turning it into cash is destroying the chances of getting a considerable portion of it hereafter. Besides, we are naturally more interested in the living present than in fifty years hence, and when that time does come or perhaps much sooner the use of timber may be greatly curtailed if not done away with almost altogether, for in this era of invention and progress we find that iron, steel, and other substitutes are now used where formerly lumber was used altogether. It seems strange to think how our friends, the mill men, keep on telling the people and the Government that there is not much timber in the country and that it export of logs is allowed there will soon be nothing left for the mills here to saw. And they have told this so often and so persistently that some of them seem to half believe it themselves, whilst the facts are there is more timber in this province than the mills here will saw up in the next 300 years.

There is, it is said, more timber on Vancouver Island alone than the Coast mills of British Columbia would saw up in the next fifty years. There is plenty of timber here for this generation and there will be plenty for the next.

The old saying "where there is enough, take enough, and where there's little take all," may have some vulnerable points, but there is lots of horse sense in it when applied to something like standing timber, which is liable to rot, burn, or depreciate in other ways.

Besides, it is foolish to get jealous because our Yarkee cousins get our logs and give us in return their gold. Their money is what we want; this is bringing in capital and is better for the community than selling to people here, for selling to each other is like taking money out of one pocket and putting it into another as far as benefitting the public is concerned.

These are straight facts which will appeal to sensible people. We believe the rescinding of this Order-in-Council will have the immediate effect of putting life in the logging business, will double the value of our timber lands, will double the Government receipts for royalty and licenses, will give us all new hope and added energy.

This is not only of moment to us, it concerns every man, woman, and child on the Coast of British Columbia. We want your help, sign the petition, get your neighbour to sign it, help us, tell our city members that we mean business, and impress upon the Government of this Province the fact that we want legislation not for the few but for the many.

All of which is respectfully submitted on behalf of

THE B.C. LOGGERS' ASSOCIATION,
W. H. Higgins, President.

Vancouver, B.C., June 25th, 1904.

W. Oliver has his new planing mill at Lethbridge, N.W.T., now in operation.

MANITOBA AND NORTHWEST LETTER.

Office of the CANADA LUMBERMAN,
McIntyre Block, WINNIPEG, July 19th, 1904.

There are indications on all sides of great activity in the lumber business. Building operations are going ahead with unprecedented expansion, and as the demand for small property is greatly to the front, and mostly wooden houses, the impetus given to the lumber trade is very marked. This, however, in itself does not always mean that an industry so affected is of necessity in a financially flourishing condition and in this instance, although the volume of trade being done is eminently satisfactory, generally speaking, there is a good deal of dissatisfaction and the dealer especially is finding it difficult to show profit on his trading.

The previous season was a specially good one, and this year opened up with most dealers carrying an extra heavy stock in prospect of active demand, and in many cases more than they themselves considered advisable, but they were influenced by the zeal and anxiety emanating from the transportation companies. These stocks are mostly held at last year's prices, which it was expected would maintain right through the present season. As this has not been the case, however, dealers are face to face with a somewhat serious if not embarrassing situation. In the more outlying districts in the Territories the situation is perhaps more distinctly marked, on account of the opposition being more keenly felt, as we learn that carloads of lumber have come across the border consigned by American firms direct to consumers. The representative of these firms finding it impossible to get orders from the local dealers, did not hesitate to canvas the consumer, in order to make his journey pay expenses, and, as if this in itself were not enough, going so far as to sell at an even lower rate than was ruling "wholesale" on this side, thus bringing prices down to an almost impossible basis. It can therefore be easily seen that under existing conditions, although the bulk of trade is in every way satisfactory, the financial side presents a serious aspect, and many dealers will do well if they close the season's trade without a heavy loss, the question of profit being a remote possibility.

To the wholesale manufacturer the conditions are somewhat different or at least more modified. The keen point which competition has reached places him in a position to draw his supply of logs across the border to advantage, and so show a good average of profit. The disparity in price has been ruling at about two dollars per thousand, a difference which is of so serious a nature that the British Columbia mills cannot see their way to attempt to meet it; in many instances they are offered the prices asked by United States firms but up to the present have refused to entertain business. We understand that already some of the mills are making their arrangements for short work, their present available stocks not warranting full running for next season.

Reports which have recently reached us from the States are of rather a more assuring character. There are indications of a revival in demand on that side and better prices are not altogether unexpected; on some grades quotations are already firmer. Should this prove to be general the situation will be somewhat relieved, but at the present moment, what with heavy stocks and impossible prices, the position calls for careful consideration.

The effect to British Columbia promises to be most serious, as the prospects for the fisheries are not reported as of the best, and with its two staple industries failing in one and the same season, the outlook must be indeed bad. Last year the fisheries were almost a total failure, but the lumber business was good and therefore came in to save the situation.

The Sprague Lumber Company, of Winnipeg, have just installed a new saw mill of the latest American horizontal type. It is expected to be in operation within a few days and will be the first to be worked in Canada. The capacity of this mill will be upwards of 100,000 feet per day. They have also put in a complete plant for electric light.

The British Columbia Mills, Lumber and Trading Company, Limited, of Vancouver, have secured an attractive location on the grounds of the Dominion Exhibition which is to be held at Winnipeg from July 25th to August 6th, upon which they are erecting a large

platform and there displaying five houses, built on their patented method with a lock joint, and factory-made on a special sectional principle. The houses they are showing are made of British Columbia lumber throughout, were constructed at their factory and sent forward ready for erection. This exhibit looks like being one of the great attractions of the Exhibition.

LUMBER TRADE OPPORTUNITIES.

PIT PROPS AND MINING TIMBER.

Mr. J. B. Jackson, Canadian Commercial Agent for Leeds and Hull, England, writes as follows concerning pit props and mining timber:

"To show the extent of the business that may be done in pit props and mining timber in the mining districts, I have an inquiry from one colliery alone, who require for the current year as follows:—

Pit props, 500,000 from 5 ft. to 7 ft. long, but principally 6 ft. and not less than 6 in. diameter at the small end.

Pine timber, 7 in. to 8 in. square in 15 ft. to 30 ft. lengths; 70,000 cubic feet.

Pitch pine, 12 in. square, long lengths; 20,000 cubic feet.

Oak in logs, about 12 in. square; 5,000 cubic feet.

Railway sleepers, 9 ft. x 10 in. x 5 in.; 3,000.

Pine deals, battens and boards; 150 standards.

This colliery company and others desire to be put in communication with sellers of the above classes of timber in Canada."

SAW MILL MACHINERY CATALOGUES WANTED.

Mr. D. H. Ross, Melbourne, Commercial Agent for Victoria, South Australia, Western Australia and Tasmania, Aus., writes:

"A practical saw-mill manager left here last week for London and, from there, proceeds to Canada to secure improved machinery for some mills in which he is interested in New Zealand. He has been supplied with the names and addresses of some Canadian manufacturers and will personally select his requirements. This machinery will be erected in one of the principal lumber centres, and should prove to be a good advertisement to the makers. As intimated in previous reports, it would be to the undoubted advantage of Canadian manufacturers of saw mill machinery if they would distribute their catalogues and export price lists broadcast throughout the Commonwealth to mill proprietors."

WOODEN PAVING BLOCKS.

Mr. P. B. McNamara, Commercial Agent at Manchester, Eng.:

"Many of the streets of Manchester are paved with wooden blocks of Australian wood, called Karri, of dimension 9 in. x 5 in. x 3 in. planed and trued. The last order given by the corporation was for 260,000 blocks, to a firm in Liverpool, and the minimum price paid was £12 10s. to £13 per thousand blocks f.o.b. Manchester. The wood is cut into blocks of the required dimensions in Australia, and shipped to Liverpool ready for use on streets. The wood resembles in weight and texture our Canadian iron wood, and as that is principally used for firewood, it proves expensive fuel, if it could be placed here for street paving at prices given above. The ocean freight rates are also in favour of Canada, as the wood can be shipped direct to Manchester by the ship canal from Montreal in summer, and from St. John or Halifax in winter."

RAILWAY TIES.

Mr. A. Foudron, Commercial Agent at Paris, France, writes as follows:

Dimensions of the railway ties mostly in demand in France are the following:

1st. 8 ft. 10 3/8 inches long by 8 3/8 inches wide by 5 1/2 inches deep for square ties.

2nd. 8 ft. 10 1/8 inches long by 11 3/4 inches by 6 inches for half round or sided railway ties.

Duty rate is 1.50 fr. (about 29 cents) per 100 kilos (lbs. 220).

Present price, f.o.b. on cars, Havre station, duty paid, is about 3.50 fr. each (nearly 67 cents).

The Adirondack fires of a year ago are discussed in a paper by Mr. H. M. Suter, of the U.S. Bureau of Forestry. Those fires, lasting from April 20 to June 8, burned over 600,000 acres of timber land, and caused a direct loss of \$3,500,000 sterling. About \$175,000 was spent in fighting them, and they were finally extinguished only by heavy rains. Their effect on several industries was severe.

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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 especially 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.

OVER-PRODUCTION AND PRICE-CUTTING.

If the lumber manufacturer could always follow his inclinations, it is probable that there would be less cause for complaint on the ground of over-production. Unfortunately, he is not always fully in control of his business, and must sometimes operate his logging camp and his mill whether or not he can see a profit in doing so. Nevertheless, the evils of over-production have at different periods been strikingly brought before Canadian lumbermen and every effort should be made to minimize as far as possible the probability of such a condition arising. The present demoralized condition of the lumber industry in British Columbia is due in part to over-production, although the unfavorable tariff laws have also contributed largely to that end.

At this season of the year preparations are being made for work in the woods, and we strongly advise the adoption of a conservative policy on the part of all operators. We do not anticipate that there will be a falling off in the quantity of Canadian lumber required for home consumption and for export, but it is the part of wisdom to so regulate the output, if such is possible, as to prevent a decline in the market price even if the demand should prove disappointing. One of the most certain ways to accomplish this end is to curtail logging operations. These remarks are especially applicable to the spruce territory, where present conditions from a price standpoint are somewhat demoralized. The decline of from \$2 to \$3 per thousand feet which has taken place has practically left the manufacturer's profit a nonentity, and it is therefore very necessary that the coming season's work in the woods should be planned with extreme caution. We would suggest that the lumbermen of Quebec, New Brunswick and Nova Scotia form an association with the object of making an arrangement whereby the maximum production will not ex-

ceed the probable consumption. This policy has been adopted by the Swedish and Finish mill owners with some success.

Price-cutting is another source of demoralization to the lumber trade. Uniform prices are a sure indication of healthy conditions and inspire a feeling of confidence in buyers. The person who requires lumber is always willing to buy at the market price if he can be assured that the basis will be steadily maintained and that his competitor will not be given an advantage over him. When price-cutting is indulged in the reverse is the case.

Under ordinary circumstances price-cutting below the average selling value provides but a temporary increase of business. A lumber salesman may succeed in selling a block of stock by giving exceptional inducements, but upon his next visit the customer so favored will in all probability demand a further reduction from the previous cut price and refuse to buy if a concession is not granted. He has become imbued with the idea that the undertone of the market is weak, and is therefore doubly cautious in making purchases. Had the cut price never been granted he would be a more willing buyer.

THE DEMAND FOR AN IMPORT DUTY.

The agitation for an import duty on lumber coming into Canada is now more pronounced and widespread than perhaps at any previous time in the history of the trade. In every province of the Dominion, with the exception of Manitoba and the Territories, the justice of the demand of the Canadian manufacturers is recognized. There is likewise a greater probability that the lumber trade will be accorded the protection which has been asked. A deputation of the Lumbermen's Association of Ontario recently interviewed Hon. W. S. Fielding, Minister of Finance, on the subject, and while no definite promise was made, they were given some reason to expect that the conditions would be remedied in the near future.

At this time the tables of imports and exports of forest products published on another page are peculiarly interesting, showing as they do that the question of an import duty on lumber is a much more important subject than is generally believed. Taking the month of May for comparison, the imports of forest products into Canada, according to the unrevised monthly statements issued by the Department of Trade and Commerce, were valued at \$625,382, while the exports of forest products from Canada in the same month were \$1,062,054, or less than double that of the imports. While we are not disposed to accept the figures as absolutely correct, the Department itself not making such claim, they at least reflect in a measure the relation which the imports bear to the exports, and refute the statement which is sometimes made that our lumber imports are insignificant in volume. The figures for the previous two months show the value of forest products imported to be still nearer that of the exports.

The lumber trade have asked for and expect an import duty. Until such duty becomes law, the "dumping clause" embodied in the recent

tariff introduced by the Minister of Finance should in some way be made applicable to lumber, notwithstanding that it is not designed to apply to free goods. This clause provides that when any imported article is sold in Canada below the market value for home consumption in the country of export, there shall be levied thereon in Canada, in addition to the ordinary duty established by the Canadian tariff, a special duty equal to the difference between the selling price and the fair market value for home consumption, provided, however, that such special duty shall not exceed one-half the ordinary duty provided by the tariff. It is well known that large quantities of United States lumber have been sold throughout the Canadian North-West below the actual selling price of such lumber in the United States, and the dumping clause should be at once enforced to prevent Canada from being any longer made the slaughter ground for United States manufacturers.

It is estimated that ninety per cent. of the imported lumber has come into Canada free of duty, as the Customs Tariff in the case of lumber sized one side and one edge has been violated by United States manufacturers, who, to avoid paying duty on it, first plane their dimension lumber on one side and then pass it over a fine-toothed rip saw to size it on the edge, while the Dominion Customs Tariff distinctly provides that an ad valorem duty shall be levied on all lumber when further manufactured than dressed on one side. As a result of representations made to Ottawa, we understand that the Government have notified the customs officers to collect duty in future on all dimension lumber planed on one side and edged by fine-toothed saws as above mentioned.

As showing that the lumber manufacturers of Canada have not been getting undue prices, it is pointed out that very few mills have been dividend payers, whereas a considerable number of persons who have embarked in the business have experienced failure. It is not the purpose of the trade, however, to advance lumber prices as the outcome of an import duty, but rather to create a market for the output of the mills, many of which as conditions now exist can be operated only for a short period in the year. At a meeting of the lumber and shingle manufacturers of British Columbia, held in Vancouver recently, a resolution was adopted pledging themselves not to increase the price of lumber in consequence of the protection afforded by a duty.

INCREASED CONSUMPTION OF LOW GRADE PINE.

An interesting feature in the lumber trade of the past year has been the heavy demand for all grades of white pine below common. The manufacturers in both Canada and the United States have experienced no difficulty whatever in disposing of all the lower grades, while the upper grades have not shown corresponding strength and were the first to recede in price when market conditions became a little unfavorable about six months ago. Coincident with the strong demand for low grade pine came an increased consumption of hemlock for building purposes. It would seem, therefore, that there

has been an abnormal consumption of lumber of the poorer quality, this probably being the outcome of the prosperous conditions existing in the country districts and of the general commercial prosperity as reflected in an increased demand for boxes for the shipment of merchandise.

There is little indication at the present that there is to be an immediate slackening of any consequence in the demand for low grade pine, which condition must be very gratifying to the lumber trade at large. The percentage of low grade stock produced each year is increasing, but the demand is likewise expanding.

EDITORIAL NOTES.

Railroad cars will be scarce when the crops begin to move, then order your lumber before the fall freight blockade.

Many a good word is now said about hemlock lath, where a few years ago it was almost unknown as a market commodity. It can be purchased at \$2 per thousand for No. 1 at the mills, which is about the same price as No. 2 white pine. A comparison of qualities results, if anything, in favor of the hemlock, and its still greater use may be expected.

The Union Pacific, Great Northern and Northern Pacific Railroads have decided not to grant the extension of the 40 cent fir rate into the Missouri Valley as requested by the Pacific Coast Lumbermen's Association. The refusal of this concession is a sore disappointment to the lumbermen of the Coast states, as it would have undoubtedly been of material assistance in reducing some of the immense stocks of the lower grades they have accumulated. The lumbermen of British Columbia will regret to hear of the decision arrived at by the railway magnates, as they hoped to gain relief from the ruinous competition they have been subjected to during the past six months by the free importation of these stocks into the Territories and Manitoba. It is estimated that the Missouri Valley consumes 150,000 cars of lumber annually.

Mr. G. Eustace Burke, Commercial Agent at Kingston, Jamaica, British West Indies, has taken a step which should strongly commend itself to Canadian manufacturers and exporters. Recognizing that a very small percentage of Jamaica's importations are supplied by Canada, he has established a permanent exhibition and sales room wherein the manufacturers of Canada may exhibit their goods. The charge for space is at the rate of \$2 per square foot, with a minimum charge of \$20 per annum, but special arrangements can be made for exhibiting furniture, lumber, etc. The charge for wall space is \$1 per square foot, with the privilege of commercial literature in the reading room and library. Messrs. Pickford & Black have expressed their willingness to convey all exhibits free of freight charges from Halifax to Jamaica. It is earnestly hoped that Canadians will take advantage of this unique opportunity to make their goods known to probable customers in that market.



CONCATENATIONS.

A successful concatenation was held in Orillia on Friday evening, June 24th, when thirty-one kittens were introduced to the kindly light of Hoo-Hoo. This was the first gathering of Hoo-Hoo in Northern Ontario. The lumber trade was represented by an attendance of seventy-five members from many towns and cities in various parts of the province. The old members of the order are always interested in seeing that the candidates are well and properly concatenated and that no detail in the ceremony of initiation is overlooked. There was no complaint made at Orillia on that score—certainly not from the kittens. The local committee had arranged for the continuous entertainment of the visitors and the programme was thoroughly enjoyed. Early in the evening the party enjoyed a sail on Lake Couchiching on the steamer Longford.

The new kittens after their initiation were honored by an elaborate banquet at the Orillia House. The menu was printed on thin boards and each was decorated with a bouquet plucked from the onion bed. There was not a dull moment and all expressed their appreciation of the kind entertainment in Orillia, and congratulated the Orillia committee on the thorough success of this meeting.

A concatenation will be held in Winnipeg during exhibition week, the exact date of which had not been announced at time of going to press. Mr. J. S. Spencer, care of the Clarendon Hotel, Winnipeg, has been appointed Scrivenor and is receiving applications from candidates. A large class is likely to be initiated, as it will probably be the last initiation of the season in the district. The Vicegerent Snark of the Western District is G. B. Housser, of Portage la Prairie.

ENQUIRY FOR HOO-HOO MEMBER.

The Supreme Scrivenor of Hoo-Hoo, J. H. Baird, of Nashville, Tenn., is very anxious to learn the present address of Mr. Howard Benton, Hoo-Hoo No. 1736, formerly of Washburn, Wis. The Scrivenor has some very important mail for this man. Mr. Benton is 30 years old, is 6 feet tall, weighs 185 pounds, has iron gray hair and brown eyes, is well educated and of good appearance. He was county judge at Washburn for eight years. In the 1900 handbook Mr. Benton is put down at Washburn, Wis., with the W. B. & I. Railroad. Any one who can furnish information in this connection will please write J. H. Baird, Wilcox Building, Nashville, Tenn.

BURNING OF THE HOUSE OF HOO-HOO.

All Canadian lumberman, and members of the mysterious order in particular, learned with regret of the burning of the House of Hoo-Hoo at the World's Fair, St. Louis, on Friday morning, June 24, just after the magnificent building had been completed. The loss was about \$60,000. It was one of the most unique

buildings and the only club-house on the grounds and was admirably adapted for the purpose for which it was designed.

The building was partially insured, and the Executive Committee held a meeting only a few hours after its destruction, and after careful consideration of the situation, and encouraged by many letters and telegrams proffering aid for rebuilding, they decided upon the reconstruction of the building within the shortest possible space of time. The contract was awarded on June 27th and active work under it was started the following day. Dedication ceremonies were announced for Monday, July 25th, but the Executive Committee afterwards found that the new building was so far advanced that it could be dedicated on the afternoon of July 23rd. A large number participated in the ceremony and on all sides were heard expressions of satisfaction that the building had been so quickly rebuilt and that so little inconvenience had resulted through the burning of the original structure.

Supreme Scrivenor J. H. Baird, Nashville, Tenn., is very anxious to make a good showing at the St. Louis annual meeting in the matter of paid up dues. There are now nearly two thousand members of Hoo-Hoo still owing dues for the year ending September 9, 1904, and this notwithstanding the fact that two formal notices have been sent out from the Scrivenor's office. The constitution requires that a man shall be sent three formal notices before he is suspended, but no good Hoo-Hoo should wait to have that much postage expended on him. Every member who has not paid 1904 dues should send in the amount at once and not wait until he goes to the annual meeting. The Scrivenor will have all he can do at the annual meeting without having to handle any dues. Everybody will be in a rush and everybody's time will be very much occupied—do not add to the confusion by going to the Scrivenor's private office at the official headquarters and buttonholing him while you try to pay 99 cents out of a twenty dollar bill. Of course, the Scrivenor will cheerfully accept your money at the annual meeting if you cannot possibly make shift to pay him sooner, but you will add greatly to his comfort and smooth matters generally by sending in your 99 cents right away. You need not trouble to buy a post-office order or send currency by registered mail—your personal check will be good enough. Any form of remittance goes except stamps that are stuck together. He draws the line at that.

A TRADE CIRCULAR.

Following is a copy of a circular which the Bonsack Lumber Company, St. Louis, Mo., sent in advance of all their salesmen on their last trip:

STRIKE

Mr. Meyer has struck for more money and less work. We are willing to concede both points, providing he can secure more orders. Now, should he strike on you, would advise not to arbitrate, but give him an order, otherwise we cannot be responsible for results, as we are informed hot air is as dangerous under certain conditions as dynamite. We trust that he strikes you in want of lumber and that it will strike you that he ought to have the order. Mr. Meyer says he is no "scab," but a first-class salesman. As we are from Missouri, he must "show us" more orders before we can grant his demands. Respectfully,

THE BONSAK LUMBER CO.,
Hardwoods, Saint Louis.

He will call on you to-morrow or day after.

ONE WAY OF ESTIMATING TIMBER.

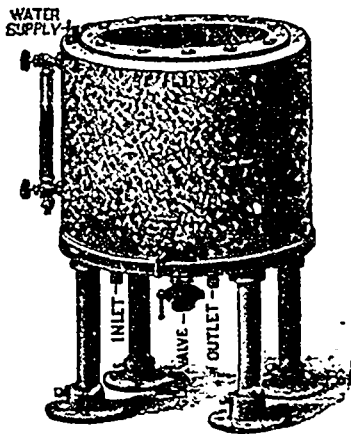
There are several methods of estimating the amount of standing timber on a given tract, and the following which is in use in states that have been ranged and sectionized, is as good as any:

Three hundred and thirty feet, which is one-fourth the distance along one side of a square containing forty acres, is called a "tally." This is equal to 125 paces of a good walker with a good pair of legs, or about 140 paces of an ordinary walker. The estimator, called timber cruiser in some parts, is accompanied by a compass man, who ought to be an experienced woodman. Assuming that a quarter section is

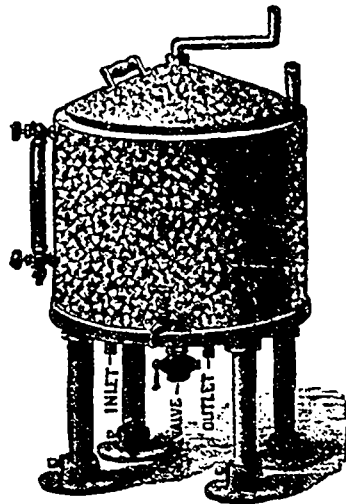
to be estimated, and that it is convenient to begin work at the southeast corner, the estimator calls to the compass man, "Go west." The compass man, starting from the corner, goes west 125 steps, more or less, according to the known length of his step, halts and calls out, "One tally west." The estimator calls, "Go north," and the compass man goes north the requisite number of steps and calls, "One tally north." The estimator goes to work by covering the $2\frac{1}{2}$ acre squares on either side of the compass man's line to an estimated distance of 125 steps in each direction. He then estimates for each important species the number of merchantable logs to the tree, the average number of logs to the 1,000 board measure feet, and the total number

of merchantable trees on the five acres covered. To aid in doing this he counts, perhaps several times a day, all the merchantable trees on average acres or quarter acres, stepping off and blazing a line around the acres and counting all the trees inside the lines, or he will stand in the centre of a one-quarter acre circle and count all the trees within a radius of sixty feet. This process gives the estimator a pretty correct amount of timber of each kind. This process is repeated until the entire tract is covered. The estimator makes a careful note of the character of the land and the probable cost of logging. Two good men can cover one quarter section a day, weather and other conditions being favorable.—Southern Lumberman.

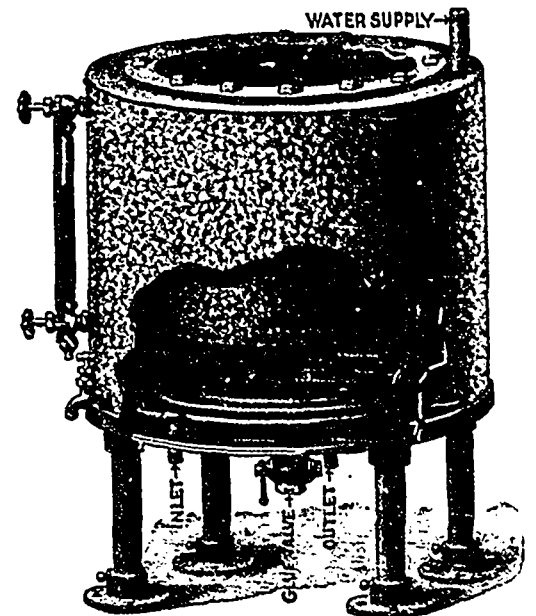
IMPROVED APPLIANCES FOR HANDLING GLUE



Cut No. 1.
No. 6t BOILER.



Cut No. 2.
No. 6t BOILER.
With heavy galvanized iron lid,
fitted up complete with Glue Stirrer.



Cut No. 3.

STEEL GLUE BOILERS OR COOKERS (Galvanized)

Cut No. 1, 6 gallon Steel Glue Boiler, and cut No. 2, same Boiler with Heavy Galvanized Iron Cover and arranged with Glue Stirrer. Cut No. 3, a 20 gallon Boiler or Cooker, No. 63, giving a sectional view, showing arrangement of Copper Tube Coil for heating the water.

Cut No. 4 shows a No. 63 (20 gallon) Boiler or Cooker with Heavy Galvanized Iron Cover and sectional view showing arrangement of Glue Stirrer.

Made of Heavy Sheet Steel, both Water Jacket and Glue Pot well Galvanized. The Steam Pipes are connected to a Coil of Heavy Copper Tubing; in this manner the water is quickly heated and the steam can be piped back through trap to steam boiler, thus causing very little loss of steam and overcoming all danger of bursting the Glue Boiler, as all steam pressure is confined to the Copper Tubing. Other features are fully described in our catalogue of Modern Glue Room Appliances. If interested,

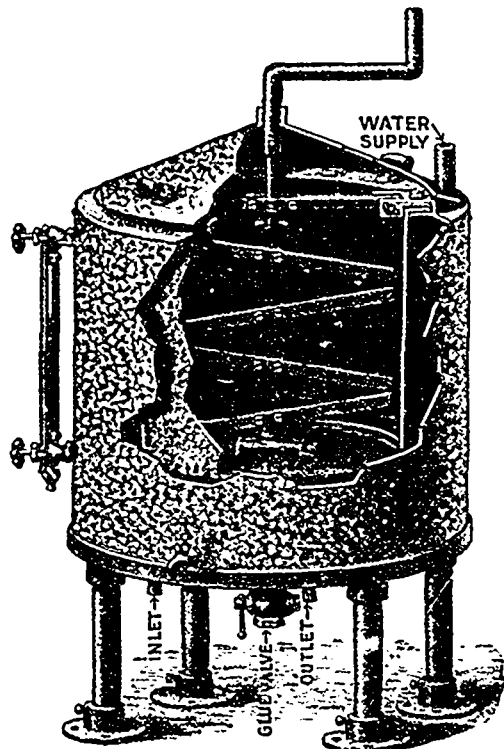
ASK FOR CATALOGUE NO. 1323.

HAMMACHER, SCHLEMMER & CO.

New Home After July, 4th Ave. and 13th St.

Hardware, Tools and Supplies

NEW YORK CITY, Since 1848



Cut No. 4.

WOOD PULP ~

DEPARTMENT

TEXTILES FROM WOOD PULP.

Artificial silk made from pulp is now a staple on the market, and the demand is greater than the supply, according to the statements of those who are engaged in the business.

We are now to have an extension of the field of the pulp maker, and by means of recent discoveries and improvements practically the whole range of textile work is opened to him as a market for the disposal of his raw material. Recently the Paper Trade Journal gave a somewhat lengthy notice of a book written by Professor Pfuhl, of Riga, Russia, in which that writer reviews the work that has been done in the way of making wood pulp available for textile work. He gave it as his opinion that Kron had outstripped his fellow workers in the same field and had made progress sufficient to demonstrate practically that the yarn for any kind of textile could be spun directly from moist wood pulp, an advantage which was not possessed by the methods of other inventors. It is claimed that by Kron's method there is produced not only a stronger yarn but that the cost of production is less and that the output is greater.

AUSTRALIA WANTS CANADIAN PULP.

In a report to the Department of Trade and Commerce, Ottawa, Mr. D. H. Ross, Canadian Commercial Agent at Melbourne, Australia, says:

"Samples forwarded to this office by Canadian manufacturers of pulp have been submitted to the local paper mills, but I regret to report that nothing suitable for local requirements has, so far, been received. The local mills require sulphite (not mechanical) pulp, in unbleached and bleached sheets, packed in bales weighing about 3½ cwts. The unbleached pulp is used in the manufacture of brown wrapping paper, which industry is protected by a customs duty of £3 (say \$14.60) per ton. The bleached pulp is required for strong cartridge papers, etc.

"The Melbourne Paper Mills use local materials in making a substitute for cheap pulp, which answers for 'filling' purposes. It is essential to make a dry pulp, equaling in quality that now received from Norway and Germany, in order to obtain a footing in this market. An experimental shipment of Canadian pulp came forward to this city some years ago, but owing to its dampness, the contents of the bails—especially in the centre of the packages—was rotten when it arrived.

"The landed cost of the last shipment from Norway, on Melbourne Wharf, was as follows: Unbleached pulp, £10 (say \$48.66); bleached pulp, £11 (\$53.53), per ton of 2,240 lbs. The landed cost, of course, fluctuates according to the market, and the freights obtainable at time

of shipment. The manager of the local mills expresses a desire to obtain his supplies from Canada, and it is to be hoped that an effort will be made to secure the orders offering. If suitable dry pulp can be produced by Canadian makers, it is probable that the authorities will waive the present customs regulation which requires the sheets to be perforated in order to allow the line to land duty free.

"By this mail I am forwarding fresh samples of continental pulp to the Department of Trade and Commerce. The Melbourne Paper Mills will import from 1,000 to 2,000 tons of dry pulp this year, and it may be stated that there are larger mills in an adjoining state."

THE CANADIAN PULP PRODUCTION.

Mr. George Johnson, Dominion Statistician, furnishes the following particulars of the pulp production in 1903:

The wood pulp industry of Canada for the calendar year 1903 was carried on by 39 mills which had an output of 275,619 tons of wood pulp. Of this quantity, 187,871 tons were mechanical pulp, 84,808 sulphite and 2,940 soda. The corresponding quantities for 1902 were: Mechanical, 155,210 tons; sulphite, 76,735 tons, and soda, 9,044 tons. This shows an increase of 34,630 tons in 1903. The increase is distributed: Sulphite, 8,073; mechanical, 32,661 tons; soda showing a decrease of 6,104 tons. The total value of the output of 1903 was \$5,219,892. There are several large mills in course of construction, or which, being finished, did not operate during the year 1903. Two or three firms have gone out of business or manufacture only paper where before they made pulp.

Nine of the thirty-nine mills manufacture sulphite pulp and three soda pulp. Twenty-seven manufacture mechanical pulp and five make both chemical and mechanical. Taking the returns of thirty-nine mills, the average time the mills ran during the year was nearly nine months. The value of the production was \$5,219,892, the amount exported \$3,013,441, leaving \$2,206,451 for home use. In a general way, therefore, we export about 57 per cent. of our production. Of the \$3,013,441 worth exported by Canada in 1903, Great Britain took \$865,826, the United States \$1,890,448, and other countries \$248,167.

NEW SULPHUROUS ACID PROCESS.

A new process for making the acid used in sulphite mills has been patented by Paul Drewsen, of New York, and John Parent, of Shawano, Wis., and for some time past has been in practical operation at the mill of the Wolf River Paper and Lumber Company, Shawano, Wis., U.S.A., in which Mr. Parent is engaged. The process is so simple and does away with

so much expense in first cost and subsequent maintenance, that competent sulphite men who have examined it say it will simply revolutionize present acid-making methods. The apparatus consists simply of a wooden box of size suitable for the amount of acid to be made, provided on the bottom at frequent intervals with agitators. The milk of lime enters the box at one end, and the sulphur gases at the other. The agitators make between 400 and 500 revolutions, and produce a very violent commotion in the liquid, throwing it up against the top of the box and offering a great absorption surface for the gases to reach. From five to ten minutes' treatment is all that is required, and the acid flows in a continuous stream out of the box. The process is in every way continuous and automatic. When the machinery stops, the flow of liquor stops, and no milk of lime can run into the acid. There is also no chance for the settling of lime and monosulphite of lime. There are no pressure or vacuum pumps, no large tanks, little power, and no expensive help. A company known as the Drewson-Parent Construction Company has been formed to exploit the new invention. Paul Drewsen, of New York, is president; John Parent, of Shawano, vice-president; and F. E. Lucke, of Shawano, secretary-treasurer and manager.

PULP NOTES.

J. R. Booth, of Ottawa, intends building a paper mill in connection with his pulp mill.

The ratepayers of Chatham, N.B., have decided to grant exemption from taxation to the mills and properties of the Maritime Sulphite Fibre Company at that place.

The St. John Sulphite Pulp Company, whose mill is at Mispec, N.B., is to wound up, E. B. Ketchum having been appointed liquidator. English capitalists are the chief stockholders.

Thomas McCormick has succeeded C. W. Rantoul as manager of the Imperial Paper Mills Company at Sturgeon Falls, Ont., and it is understood that the extension of the mills will be proceeded with.

The Jenckes Machine Co., of Sherbrooke, Que., have acquired the sole right to manufacture for the Canadian market the screwless screen plate holder, invented by the Blaisdell Screen Plate Co., of Oakland, Maine.

In connection with the recent charges of William Price against the Quebec Legislature and the Chicoutimi Pulp Company, it is reported that the latter has taken an action in the Superior Court against Mr. Price for \$25,000 for alleged damages.

It is stated that the St. Raymond Pulp Company, of which Mr. Macfarlane of Montreal is one of the principal promoters, are about to construct new pulp and paper mills at St. Raymond costing \$150,000, for which preliminary surveys have already been made.

Several of the Clergue industries at Sault Ste. Marie, Ont., have resumed operations under the re-organized company. The pulp mill is one of these, and it is said that there is a good demand for the output. The drying plant is not likely to be started, as experiments in that direction by the old company were not a success.

English capitalists will probably build the La Tuque branch of the Quebec and Lake St. John Railway, which has recently been subsidized by a land grant of 4,000 acres per mile by the Provincial Government. This road will, if built, be an important factor in the development of the pulp and lumber industry of the St. Maurice district.

J. H. Wallace, hydraulic engineer and pulp mill expert, of New York, has been at Fort Frances, Ont., recently, making surveys for the power development and pulp and paper mills to be constructed at that place by the Backus syndicate. The plans call for pulp and paper mills on both sides of the river, the pulp mill to have a capacity of 125 tons daily, to be increased to 175 tons. The work of construction will be under the supervision of W. L. Bowker.

THE Wood-Worker and Retailer

UTILIZING SMALL PIECES.

A writer in *The Woodworker* submits the following as the best means of utilizing pieces that seem too good for fuel yet hardly large enough for anything else. I have a bin into which I throw all cuttings 10 inches and over in length by 4 inches and over in width. By this I mean all cuttings that will not make short panels or stiles and rails for panel work, drawer slides, backs or bottoms. I have a place for each kind of wood, also for each thickness. The only place to sort ends and save handling is at the cutter.

When I get this bin full of common ends, I have a load of No 4 common pine run in for long pieces or bottoms for the core bundles. This is surfaced two sides to $\frac{3}{8}$ inch and ripped to 4 and 6 inches wide. The common ends are also ripped and dressed to the same dimensions. I cut the long pieces to desired length and build up with these ends to desired thickness, being careful to place pine or other soft wood at both ends so it will be easy to mortise after the bundles are resawed and the stiles veneered. Am careful to break joints in building up the bundles, so as to make a strong stile.

SUGGESTIONS FOR THE PREVENTION OF ACCIDENTS.

A journal published in the interest of casualty insurance makes some practical suggestions, both to employers and employees, which, if adopted, would certainly lessen the awful list of casualties to life and limb caused by machinery in motion:

All belts passing through floors, or vertical shafting operating through floors, should be cased in to the height of at least 4 feet. See that belts do not have ragged places and that the lacing or hooking is O. K.

Shafting beneath machine tables and all other shafting operating on or near floor should be covered.

Loose pulleys should be used wherever possible, so as to throw a saw, jointer, shaper or other piece of machinery out of motion when not necessarily in use, and employees should be instructed to throw out of motion such machine when leaving same even temporarily.

Shifters should be used at all times for shifting belts, and no employee should be allowed to shift a belt with his hands or stick. Belts should be laced and adjusted when machinery is not in motion.

All flywheels of engines and belt wheels should be inclosed by casing in or placing substantial railings around them, either of wood or

gas pipe. The latter is preferable and more substantial.

All bearings and other parts of machinery should be oiled and cleaned when not in motion, and no minor under sixteen years of age should be allowed to oil or clean machinery, or to sew or assist in sewing belts.

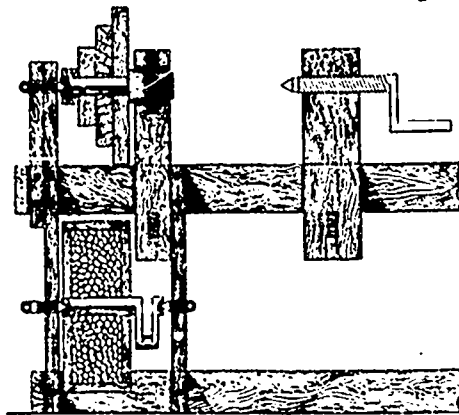
Low water alarm columns on boilers should be frequently tested to ascertain whether in good working order.

Setscrews in collars and couplings on line and counter-shafting should be covered, or, preferably, countersunk, so that the head of the screw shall not project above the surface of the shaft. Setkeys in hubs of fly or other wheels should be cut off flush with end of shaft or covered with tin casing or other materials fitting closely to shaft, forming a smooth surface.

All cog gearing should be completely cased in, casing to be so constructed that it can be easily removed when necessary to repair or oil; casing should be made of wood or metal.

A BACKWOODS LATHE.

The illustration herewith, taken from the *American Machinist*, shows what a correspondent



A BACKWOODS LATHE.

ent calls a backwoods lathe. It was built by a couple of Wisconsin pioneers—one a handy man with carpenter's tools, the other a blacksmith—some fifty years ago. The balance wheel was simply a round box filled with stones. The tools were made from old mill files. With this lathe they made about 400 feet of well-drill rods in one winter.

SOMETHING ABOUT DRY KILNS.

The practice of kiln-drying lumber has become well-nigh universal. People in this fast age cannot await the old fashioned slow process of air-drying lumber, and no mill of any great capacity either in the pine or the hardwood section is considered complete without dry-kiln facilities equal at least to about one-fourth or one-

third its capacity. While kiln-drying of lumber is the common practice, yet opinions as to its effect upon the strength and other qualities of the material are very much divided, and there are still many who prefer air-dried lumber. Nor is opinion unanimous as to the best manner of constructing dry kilns and the best process of drying. The process most widely used is the method of forcing air heated to as high as 180 degrees Fahrenheit through the dry house by means of fans or blowers. This process has also come in for the largest share of criticism. There are many who insist that subjecting lumber or timber for many hours to a temperature of 150 to 180 degrees F. "kills" it, by which term they mean in a general way that the bending and breaking strength and resistance to compression is lessened. Experiments made by United States government experts go to show that this objection is not well founded. The many contradictory claims about closing the pores of the wood by long subjection to a high temperature, and its chemical effects upon the sap and its constituent parts, as, albumen, gum, resin, sugar, etc., are not substantiated by the government tests. Neither are the claims of increased checking, warping, "case hardening," "honeycombing" and many others. Well-constructed kilns of the blower type, where the hot air is driven in at the discharging end of the drying room and out at the receiving end, are giving entire satisfaction. But it stands to reason that too high heat and too rapid drying of lumber is not the best. Nature's process of drying anything is a slow one, and nature does most things well, and it is advisable always to follow her plans as nearly as time will allow and convenience will permit.

The best class of dry kilns seems to be those in which the piping is amply sufficient to insure a uniform heat, not to exceed 180 degrees, in all parts of the kilns, with a steady and moderate circulation of the air among the material. For timbers of large size kilns of this type are most generally preferred. All the standard dry kilns now on the market possess individual and peculiar advantages and the selection of one is largely a matter of individual preference and experience and special requirements.

There is one class of dry kiln employed in some localities in which a temperature of more than 300 degrees F. is used under a pressure as high as 150 pounds, and it is claimed that such treatment results in increase of strength, durability, and absence of shrinkage. Tests made by the government do not appear to bear out these claims. Kilns of this type must needs be costly

to construct and difficult if not dangerous to operate.

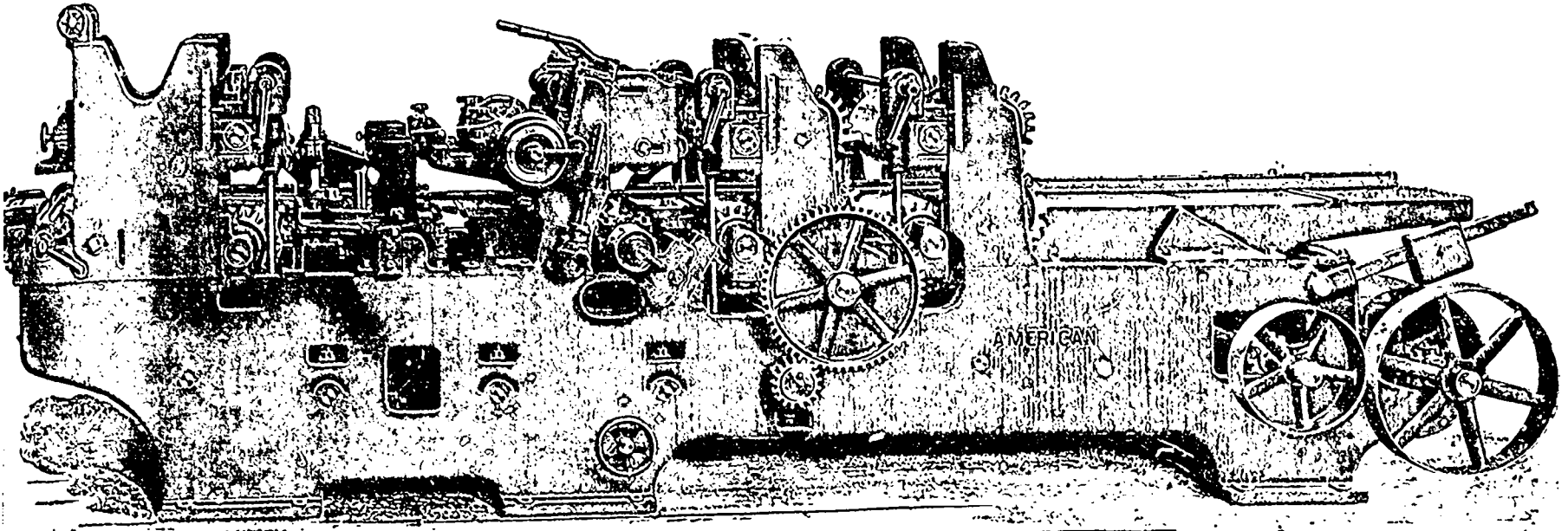
A notion prevails widely that the soaking of wood by rafting or floating injures its strength but reduces its tendency to decay and shrinkage. The same is said of wood boiled or steamed preparatory to bending. Careful tests show that these claims are merely notions without

patented September 18th, 1900, and October 30th, 1900, and attention is invited to some of its most important points:

1. The great saving in kerf by using a thin blade, an important item when cutting fine lumber.
2. Solid lower wheel, increasing speed, lessening the circulation of dust, and preventing the upper wheel from overrunning it. Upper wheel having its spokes placed in staggering position, giving it increased solidity.

The feed consists of six large rolls, geared at both ends and fitted with parallel lift. The rolls are either solid or divided as ordered.

The top and bottom cylinders are of crucible steel, four-sided, lipped and slotted and belted at both ends. As they are alike in detail, they are interchangeable. The journals are long and large in diameter. The boxes are yoked both in front and behind the cut, insuring perfect alignment. They are easily adjusted and rigidly clamped. The pressure is perfect, and the parts are so arranged that they permit of the knives taking in an



HOYT'S NEW FIVE HEADED PLANER AND MATCHER.

any substantial foundation in fact.— Southern Lumberman.

NO. 57 BAND SAW MILL.

The most pronounced success in the development of machinery for the lumber manufacturer is the band saw

3. Improved sensitive straining device, maintaining an always even tension on saw blade, and materially prolonging its life.

4. Patent variable friction feed, simple in construction, powerful and effective in operation. Furnished for steam or rack and pinion.

5. Automatic off-set to carriage, headblocks fitted with Knight's patent dogs and having automatic receding device, double-acting set works, rapid return to carriage, etc., are a few of its improved features.

Those interested will be furnished with terms, full descriptions and any particulars, including copies of testimonial letters received from users, by the makers, J. A. Fay &egan Co., Cincinnati, O. They will also send free their new illustrated catalogue of wood-working machinery to those writing for it, mentioning this paper.

HOYT'S NEW FIVE HEADED PLANER AND MATCHER.

The accompanying engraving illustrates a late improved five-headed planer and matcher of the New Series type, built by the Hoyt & Brother Company Branch of the American Wood Working Machinery Company, at Aurora, Ill. The main feature of this machine is that it has two lower cylinders. The first one is placed in front of the top head, making the roughing cut, while the second lower cylinder is placed in the rear of the machine, for producing an extra fine finish when running flooring face downward. It is built in various sizes, working from 9 to 30 inches in width, and 8 to 12 inches thick. It will match from two inches to the full width of machine and dress as thin as 3/8 inch.

exceptionally heavy cut. The pressure bar on under head is carefully designed, and while simple, yet is positive.

The lower cylinder is placed in front of the upper cylinder. It can be quickly and easily drawn out from the side of the machine, and is adjusted not only from the side, but also from the feeding-in end of the machine while it is in motion, to bring the cut of the knife on a line with the rear pressure bar. The front lower cylinder bar, together with the lower feed roll, is so arranged that by operating a lever at the front of the machine, the cut of the under head may be changed as desired without altering the finished thickness of the material or disturbing the cutter head, and any amount of stock can be removed up to 3/4 inch.

The gearing is strong, positive and powerful. All gears of equal size are interchangeable and can be reversed, the hubs being alike on both sides. All gears and pinions are mounted on shafts, which run in babbitted boxes.

The matcher spindles have long bearings and are large in diameter. They are adjusted independently and can be clamped perfectly rigid.

The top chip breaker can be adjusted to within 1/8 inch of the cutting circle, and remains in this relation even when the cylinder is taking any cut desired up to 3/4 inch.

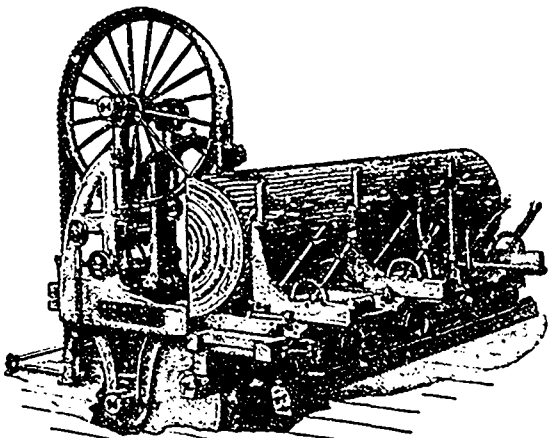
There are four rates of feed, 40, 50, 60 and 80 feet per minute, or the manufacturers can furnish any rate desired up to 120 feet per minute.

For full detailed information and prices, we would refer our readers to the American Wood Working Machinery Company, 136 Liberty street, New York, or the Fairbanks Company, Vancouver, B.C.

OVER 175 CIRCULAR FILERS

now using my gauges and instructions. I give the short infallible method. Failure is out of the question. Your first saw a perfect saw. Sent prepaid on trial to honest men. Put your saw to my gauge and if it don't run perfectly I will pay freight both ways and hammer it free.

Send for Canada references. J. H. MINNER, Tumberton, Miss



NEW BAND MILL.

mill. Its superiority over the circular mill is everywhere admitted. It required long and continued effort to bring the one here shown to its present state of mechanical perfection; with the result that on its introduction on the market it at once met with favor. It is one of the newest and most improved pony band mills for fine sawing in hardwood ever built. It was

The CANADIAN CASUALTY and BOILER INSURANCE CO.

Head Office: N. E. Cor. Adelaide and Victoria Streets, TORONTO.

Special Attention given to Steam Boilers

The Steam Boiler Policy of the Canadian Casualty and Boiler Insurance Co. gives Free of Cost— Regular Inspection of Boilers, Free Insurance of Engineers and Firemen, Public Liability Protection, and the advice of our Consulting Engineers — FREE. Write to-day for Booklet "To Steam Users"

ALEXANDER SUTHERLAND, D. D., President
H. NAYLOR, W. S. DINNICK, Vice-Presidents.

A. G. C. DINNICK, Managing Director
A. M. WICKENS, Chief Engineer.

The Crown Jewel Axe

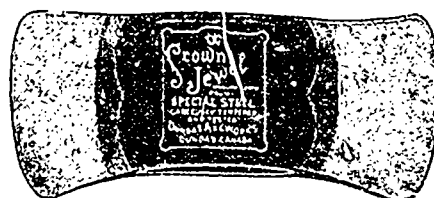
AND

Crown Jewel

Cross Cut

Saws

ARE UNEXCELLED



We will be glad to quote prices on High Grade Circular and Band Saws.

THE DUNDAS AXE WORKS

Dundas, Ont.

THE NEWS

ONTARIO.

—Conrade Forler is building a planing mill at New Hamburg, Ont.

—Currie & Thrasher are building a new saw mill at Deux Rivieres, Ont.

—H. Cargill & Son, Cargill, Ont., are building a new planing mill and sash and door factory.

—Charles Hopewell, of Ottawa, purposes establishing a sash and door factory in Winnipeg.

—Mr. Lottridge is establishing a new saw mill at Williams Bay, Lake of Bays district, Ont.

J. R. Booth has completed his new lumber yard on Nepean Road, about four miles from Ottawa.

—John Todd, Collingwood, Ont., is considering the question of building a box factory in Owen Sound.

—Moses Stratton has sold his saw and planing mill at Staffordville, Ont., to Mr. Stafford, of Houghton.

—The ratepayers of Cornwall, Ont., will vote on a by-law to grant a loan of \$17,500 to John B. Atchison to assist him in rebuilding his saw and planing mills.

—The Lake Superior Timber Company, Port Arthur, Ont., will ship this season about 25,000 cords of pulp wood, chiefly to Port Huron, Cleveland and Detroit.

—It is reported that the Imperial Lumber Company, of Toronto, have under consideration the establishment of a saw mill and lumber yards at Owen Sound, Ont.

—The Rideau Lumber Company, of Ottawa, are announced to have disposed of their mill property at Barry's Bay, Ont., to D. H. Morrison, of Glen Robinson.

—The Blind River Boom & Slide Company have been authorized to increase their capital stock to \$16,000 and to construct certain improvements to the company's works.

—The estate of the late Robert Hurdman, of Ottawa, is valued at \$460,000. A large portion of the estate consists of timber limits purchased from Mr. Klock about four years ago.

—Oiver Laberge has withdrawn from the Springer Lumber Company, Sturgeon Falls, Ont., and the business will be continued under the same name by Mageau, Serre & Company.

—S. O. Church & Bro., whose cooperage stock plant at Sand Point, Ont., was burned about the middle of June, immediately started building operations and now have their hoop mill nearly completed.

Wm. Pedwell is running a saw mill on Owen Sound Bay, at Brockholm, Ont., about one mile from Owen Sound. He is cutting all kinds of hardwoods and softwoods and finds business compares very favorably with other years.

J. L. Rezaume, of Essex, Ont., has purchased the

Melver property at Kearney, and is building a saw mill and stave and heading factory. He is also said to have purchased the timber limits known as the Whiteside limits.

—The St. Catharines Wood & Timber Company has been organized, with head office at St. Catharines, Ont. It is understood that H. J. Nicholls, who has been conducting a lumber and pulp-wood business at Huntsville, has been elected manager.

—By the explosion of a boiler in the saw mill of Peters & Cain, about seven miles from Haliburton, Ont., William Duncan was instantly killed and William Winn was so badly injured that he died within a few hours. The mill was completely demolished.

—The Pigeon River Lumber Company, of Fort William, Ont., are constructing a railway across a fine timber belt in Cook County, extending to Big Bay, on Lake Superior. The timber will be railed to Big Bay and towed from there to the company's mill at Fort William.

—The Kearney Timber & Manufacturing Company, Limited, is the name of a new company just licensed in Ontario to carry on a saw mill business. The company is incorporated under the laws of Great Britain and is composed almost entirely of English capitalists. Walter Gow, of this city, has been appointed attorney for the company. It is understood that operations will be carried on at Kearney, Ont.

—A number of Ottawa Valley lumbermen, including Hiram Robinson, H. K. Egan and A. Blackburn, of Ottawa, and A. Barner, of Renfrew, have applied to the Ontario Government for permission to build a dam on the height of land north of Lake Temiskaming, in order to obtain sufficient water to carry logs to Ottawa. It is proposed to raise the water in the tributaries of the Ottawa and Deschene rivers.

—The Canadian Timber Company, Limited, has just been incorporated at Ottawa, with a capital of \$250,000. The charter gives the company all the rights required for the operation of a lumbering and pulp business, as well as power to generate electricity. The incorporators are W. B. McAllister and William Anderson, of Ottawa, J. A. Cameron, of Dominionville, Ont., S. Dowd, of Quyon, Que., the two latter being lumbermen.

—Justice Teetzel has dismissed the action for damages brought by the widow and children of J. S. Valiquette against Fraser & Company, of Ottawa, for the death of Mr. Valiquette. It will be remembered that Valiquette was employed in installing machinery in Fraser & Company's mill at Lake Deschenes, when a windstorm caused the walls to collapse, killing him. His lordship held that the mill owners were not liable, and the contractor who did the brickwork was also freed from responsibility.

—The new planing mill built at Parry Sound, Ont., by George White has now been in operation over a month and is giving good satisfaction. The mill is located on the bank of the Seguin river, the main building being 42 x 65 feet, two stories, with asbestos

fireproof roof. The engine room is 22 x 26 feet and contains an engine and boiler each of 30 h.p. capacity. The machinery on the ground floor consists of a matcher, rip-saw, surface planer, hardwood flooring machine, and a cut-off saw. On the upper floor there are a sticker, combination saw table, planer, power mortiser, tenoning machine, band-saw, two turning lathes and a sand paper machine.

THE EASTERN PROVINCES.

—Lacourse & Doucet have registered in the lumber business at Grand Mere, Que.

—A. Ouellet, Ste Angele, Que., is advertising his saw mill and timber limits for sale.

—Fletcher & Ross have recently improved their steam saw mill at Cherry River, Que.

—The Compagnie La Drolet has obtained a charter to manufacture lumber at St. Germaine de Grantham, Que.

—A Heon & Company have registered a partnership as sash and door manufacturers at Shawingan Falls, Que.

—The sash and door factory of L. P. Morin & Fils, St. Hyacinthe, Que., was partially destroyed by fire last month.

—Phillippe Lambert, jr., has registered as proprietor of the business of P. Lambert & Cie, sash and door factory, St. Cyrille de Wendover, Que.

—The new saw mill of the Davidson Lumber Company at Bridgewater, N. S., has commenced operations. It is equipped with modern machinery and is capable of producing about 65,000 feet.

—For some time B. A. Scott, of Roberval, Que., noticed that a number of his logs were disappearing. He set about to discover the thieves and was successful, with the result that several residents of the locality will appear before the magistrate.

—The Davison Lumber Company, of Bridgewater, N. S., purpose building a railway through their timber limits. The road will be about 25 miles long and will connect with the Halifax & South-Western Railway. The object of the road is to do away entirely with the driving of logs. They will also build a large steam mill.

—At a recent meeting of the creditors of R. A. Estey, held at Fredericton, N.B., it is understood that the ordinary creditors opposed a preference being allowed John E. Moore and George McKean, whose claims aggregate about \$70,000. Should all the creditors be paid on an equal footing, the estate will pay at least sixty cents on the dollar.

MANITOBA AND THE TERRITORIES.

—Anderson Bros. have opened a lumber yard at Bowden, N.W.T.

—The Gibson Lumber Company have opened a lumber yard at Lemberg, N.W.T.

—The dissolution is announced of May Bros., planing mill proprietors, Saskatoon, N. W. T.

CRAIG MINE CRYSTAL CORUNDUM WHEELS

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 emery 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 Olds Lumber & Hardware Company, Olds, N. W. T., have sold out to A. E. Clemens.

James Rutledge, of the Gibson Lumber Company, has opened a lumber yard at Mellfort, N.W.T.

The capital stock of the Red Deer Lumber Company, Red Deer, N.W.T., has been increased from \$500,000 to \$800,000.

Gaudin, DeWit & Company, lumber dealers, Medora, N. W. T., have been succeeded by the Imperial Elevator Company.

The Cusson Lumber Company's new sash and door factory in Winnipeg commenced operations last month. It is a very complete plant, lighted by electricity.

The Czerwinski Box Company, Limited, has been incorporated in Winnipeg to take over the box business of C. F. Czerwinski. The capital stock is \$100,000.

F. A. Burrows has now in operation at Grand View, Man., one of the largest and most complete saw mills in the province. It is lighted by electricity and gives employment to one hundred men.

A company has just been organized in British Columbia and the Territories to combat the sale of American lumber in the Canadian market. Capital has been raised to the extent of \$400,000 and retail houses will be opened immediately in the Territories and Manitoba.

A charter has been granted to the Robertson-Adams Lumber Company to carry on a wholesale and retail lumber business and to operate saw and planing mills. The headquarters of the company will be at Crystal City, Man., but operations will also be carried on at the villages of Snowflake, Clearwater and La-Riviere, Man. The capital stock is \$100,000 and the promoters include G. F. Roberson and G. E. Adams, lumber merchants, of Crystal City, and K. G. Adams, hardware merchant, of Cavalier, North Dakota.

The incorporation is announced, under the Manitoba Joint Stock Companies' Act, of the Manufacturers' Lumber Company, Limited, with a capitalization of \$1,000,000. The objects of the company are stated to be to manufacture and sell lumber and to conduct wholesale and retail yards in Manitoba and the North-West Territories and in British Columbia. The following are members of the company: D. C. Cameron, Winnipeg; D. E. Sprague, Winnipeg; John Hanbury, Brandon; Moyie Lumber Company, Moyie, B.C.; A. Leitch, Cranbrook, B.C.; East Kootenay Lumber Company, Cranbrook, B.C.; Crow's Nest Pass Lumber Company, Wardner, B.C.; Fernie Lumber Company, Fernie, B.C.; Robinson Mackenzie Lumber Company, Cranbrook, B.C.; Standard Lumber Company, Cranbrook, B.C.; The Kootenay River Lumber Company, Nelson, B.C.; The King Mercantile Company, Cranbrook, B.C.; Porto Rico Lumber Company, Nelson, B.C.; The Yale Lumber Company, Nakusp, B.C.; Arrowhead Lumber Company, Arrowhead, B.C.; Revelstoke Lumber Company, Revelstoke, B.C.; Canadian Pacific Lumber Company, Port Moody, B.C.; Brunette Saw Mill Company, New Westminster, B.C.; Ladysmith Lumber Company, Ladysmith, B.C.; E. J. Palmer, Chemainus, B.C.; Shawanigan Lake

Lumber Company, Victoria, B.C.; Columbia River Lumber Company, Golden, B.C.; W.C. Wells, Palliser, B. C.; R. A. Mather, Keewatin, Ont.; and W. C. Cowan & Company, of Prince Albert, Saskatchewan, N.W.T.

BRITISH COLUMBIA.

The North Star Lumber Company, of Cranbrook, B.C., are building an up-to-date planing mill as an addition to their present plant.

The Fernie Lumber Company, Fernie, B.C., purpose building a logging railway to their limits, four miles distant, at a cost of \$2,000.

The Elk Lumber & Manufacturing Company intend building a saw mill at Hosmer, B. C. This will be operated in addition to their Fernie plant.

Andrew Haslam has made rapid progress with the rebuilding of his mill at Nanaimo, B.C., and is now in a position to supply the requirements of his customers.

John Haggarty & Company, Limited, has been incorporated at Victoria, B.C., with a capital of \$10,000, to carry on the business of loggers, teamsters and contractors.

We understand that J. A. Sayward, of Victoria, B. C., purposes installing this fall a band saw mill of 100,000 feet daily capacity and catering to the North-West trade.

John Taylor, formerly of the Taylor Mill Company, Victoria, B.C., has purchased a water front lot on the harbor of that place and intends building a saw mill in the near future.

The Standard Lumber Company, of Mayook, B.C., purpose erecting a new saw mill in the fall, with a capacity of 50,000 feet per day, at Fort Steele Junction, on the Crows Nest Road.

James Muirhead, of the Victoria Planing Mills, Victoria, B. C., purposes making a large addition to his wharf and installing additional plant in his mill. Mr. Muirhead is one of the pioneer mill owners of Victoria.

The new saw mill of the Canadian Timber & Saw Mills, Limited, at Trout Lake, B. C., was put in successful operation last month. A 6-car barge has been built for the company to transport the lumber direct from Trout Lake City to Gerrard.

The Kamloops Lumber Company, Limited, last month purchased the mill and timber limits of the Okanagan Lumber Company. It is said to be the intention of the company to make Enderby their headquarters and to further enlarge their mill at that place.

A bush fire raging at Serge Narrows, B.C., drove the men of J. A. Bull's logging camp to the water, where they took refuge from the fierce flames on board hastily-constructed rafts. The fire had been burning for some days, but was not dangerous until a change in the wind occurred.

The Crows Nest Pass Lumber Company, of Wardner, B. C., purpose erecting a shingle mill with a capacity of 150,000 a day, and a sash and door factory to work up their high grade material. With this end in

view they have just purchased 3,000 acres of high class cedar limits to supply the shingle mill.

It is again reported that the Ross-Maclaren saw mill at New Westminster, B.C., which a short time ago passed into control of W. L. David, of Blaine, Wash., and other United States capitalists, is to resume operations in the near future. Mr. David has asked certain concessions from the city of New Westminster and from the Government, the principal of which is the enlarging of the channel in the Fraser river to admit large sailing vessels.

The sympathy of the lumber trade is extended to the members of the Canadian Pacific Lumber Company, whose mill at Port Moody, B. C., was almost totally destroyed by fire last month, entailing a loss of \$80,000. The officers of the company are: President, T. W. Patterson; secretary, T. F. Patterson; manager, Perry E. Roe; superintendent, R. Abernethy. The mill was built eleven years ago by John Murray, now timber inspector, and cost in the neighborhood of \$60,000, but additions have been made since. The company have decided to rebuild.

PERSONAL.

The death of Mr. Charles F. Baker, secretary of Randolph & Baker, Limited, Randolph, N. B., took place about the end of June.

Mr. George Reid, father of Mr. J. B. Reid, lumber merchant, Toronto, died at Toronto Junction on July 13th, in his seventy-seventh year.

It is rumored that Mr. Hiram Robinson, of the Hawkesbury Lumber Company, will be the Conservative candidate in Prescott County in the coming Dominion election.

At the annual meeting of the Nova Scotia branch of the Canadian Manufacturers' Association, held in Halifax last month, Mr. Alfred Dickie, lumber manufacturer, Lower Stewiacke, N. S., was elected president for the ensuing year.

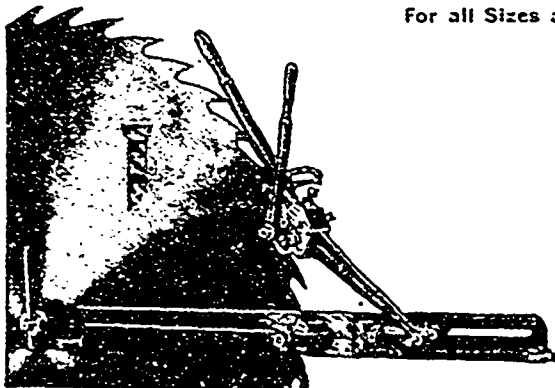
The lumber trade has learned with gratification of an improvement in the health of Mr. John Charlton, M.P., of Lynedoch, Ont. Mr. Charlton will again resume his parliamentary duties but has been advised by his physician to take a continental trip before doing so.

Mr. James Lightbody, who has been in Canada for about three months in the interests of his firm, F. A. Lightbody & Company, timber merchants, Glasgow, Scotland, sailed for home about the middle of July. Mr. Lightbody has made many friends in Canada both in business and socially.

According to figures published in the Statistical Year Book of Canada, there were exported to the United States in the year 1903 wood pulp to the value of \$1,795,768. This compared with \$1,170,400 in 1902, \$937,330 in 1901, \$1,193,753 in 1900, and exports below \$600,000 for the previous ten years. The pulp wood exported from Canada in 1903 was valued at \$1,558,560, as compared with \$1,194,593 in 1902, \$1,364,821 in 1901, an \$864,077 in 1900. The average value of the pulp wood exported was \$4 per cord.

THE HANCHETT ADJUSTABLE SAW SWAGE

For all Sizes and Kinds of SAWS—CIRCULARS, GANG, CYLINDERS, BAND RESAW and BAND SAWS.



BECAUSE The Hanchett Swage is the Best Swage
It Saves the Saw Blade, Files, Time and Labor

By the action of the dies the teeth are drawn out, which not alone refines the steel, causing the saw to hold a better cutting edge, and prevents crumbling and splitting of teeth, but at the same time increases life of saw from 20 to 30 per cent.

The Adjustments are perfect, and are quickly and easily made

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

Write for circular "F."

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.

H. P. ECKARDT & CO.

Wholesale Grocers

TORONTO

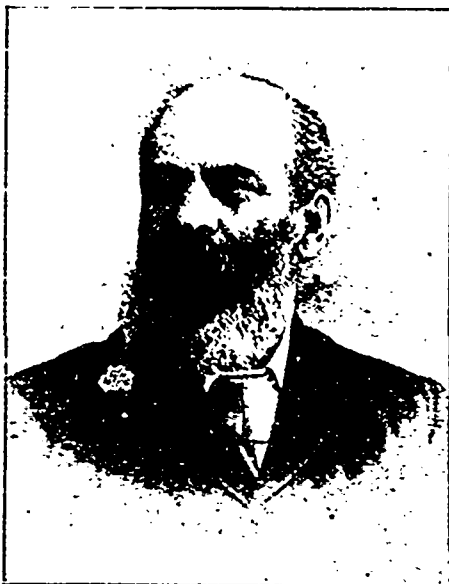
NEW LOCATION.

The wholesale hardwood firm of McBean & Verrall are now located in their new office built by themselves at the foot of Bathurst street, Toronto. The building is of substantial construction, finished in quarter-cut oak, with hardwood floors, hot water heating and other modern equipment, and the location and accommodation provided are such as to enable them to handle their growing business most conveniently. In their yard, adjacent to the office, they have in stock upwards of one million feet of hardwoods in all thicknesses, including mahogany, cherry, oak, chestnut, maple, birch and ash. They make a specialty of rock elm and hard maple, and on account of the large stock carried, they are always in a position to supply lumber thoroughly seasoned. Mr. John A. McBean gives his sole attention to the purchase of stock, while the selling end of the business is looked after by Mr. Fred T. Verrall.

OBITUARY.

MR. ALFRED CROSS.

The death occurred in Liverpool, England, recently, of Mr. Alfred Cross, for many years identified with the business of Joseph Owen & Sons, Limited, timber mer-



THE LATE MR. ALFRED CROSS.

chants, Liverpool, who are large importers of Canadian lumber. Mr. Cross was sixty-one years of age. When a young man he became identified with the timber and building trades, and in 1866 was engaged by the late Mr. Joseph Owen as manager of his new saw mills in Liverpool. New mills were erected and the volume of the business of the firm increased twelve-fold during the time of Mr. Cross connection with it.

The business was converted into a limited company a few years ago, when Mr. Cross was appointed a

director, and continued as manager of the Liverpool mills.

Few men have acquired so thorough a knowledge of the timber trade as Mr. Cross possessed. He was a competent judge of all kinds of timber, native and foreign, understood all processes of manufacture and was a good buyer and a clever salesman.

Mr. Cross visited Canada, the United States and the West Indies on business for his firm. He enjoyed the friendship and esteem of a large circle of friends both in society and business, and his demise is deeply regretted.

MR. F. BILLINGSLEY.

The late Frederick Billingsley, of Quebec, was well known in lumber circles throughout the greater part of Eastern Canada as well as in Great Britain. Born in



THE LATE MR. F. BILLINGSLEY.

1847, he entered the office of Messrs. H. & E. Burstall at the age of thirteen, and died a partner in J. Burstall & Company at the age of 63—an unsevered connection of over fifty years.

An astute, earnest business man, he was as much esteemed in commercial circles as in his private life. He was at the time of his death a director of the Quebec Bank, President of the Quebec Warehouse Company and a Past-President of the St. George's Society.

The large attendance at his funeral, irrespective of race and creed, was a testimonial to his worth.

MR. A. B. LEE.

Mr. Arthur Burdett Lee, president of Rice Lewis & Son, Limited, wholesale hardware merchants, Toronto, died on June 22nd, aged sixty-six years. He entered the employ of Rice Lewis and Son in 1856, and in 1889 became president of the company. He took an active interest in public affairs, being for over twenty years Chairman of the Board of Harbor Commissioners, and at one time holding the position of President of the Board of Trade.

Mr. John A. McBean, of the hardwood lumber firm of McBean & Verrall, Toronto, has been in England for the past three months on business and pleasure combined. He expects to return home about the end of August.

Lumber firms who intend sending men into the woods during the coming fall and winter will be interested in the announcement of the Capstan Manufacturing Company appearing in the advertisement pages of this issue. This company make a specialty of provisioning lumber camps.

TRADE NOTES.

The British Columbia Marine Railway Company are announced to have acquired by lease the plant of the Albion Iron Works at Victoria, B.C.

The Ashland Emery & Corundum Company, incorporated under the laws of the State of New Jersey, has been authorized to carry on business in Ontario.

John W. Hennigar, whose saw mill at Noel, N.S., was destroyed by fire recently, is rebuilding, and has ordered a new mill from the Oxford Foundry & Machine Company, of Oxford, N.S.

The annual picnic of the employees of the Dodge Manufacturing Company, Toronto, was held at Bond Lake on Saturday, July 9, when an interesting programme of sports and music was enjoyed.

The Hanchett Swage Works, Big Rapids, Mich., have recently placed upon the market a swage shaper which is said to be remarkable for its simplicity of construction, perfect adjustment, great speed of operation, and the excellent work which it is capable of doing.

Your boilers are the source of your power. They determine in a very large measure your output and your profits. If they do not generate sufficient steam, your machines lag, you are compelled to shut down occasionally, your men stand idle, your output suffers and your profits rapidly dwindle. Your mill is productive only when in operation. Many of your expenses continue all the time, whether your mill is running or idle. Not so your profits. They increase only when your mill is running, and stop when your mill shuts down, whether for a season, for the night, or only for an hour. Not only do your profits come to a standstill when you are compelled to shut down for say half an hour to wait for steam to rise, but your expenses are at their maximum, as, in addition to your fixed expenses, such as taxes, insurance, depreciation, salaries, etc., every man on your pay roll is drawing full pay. For this reason, shutting down to wait for steam to rise is very expensive, your profits coming to a standstill, and your expenses remaining at their maximum. Those so situated would do well to install the Gordon Hollow Blast Grate, which insures a full head of steam regardless of the weather. In addition, it permits wet, green or frozen sawdust and other refractory refuse to be used as fuel, giving as good results with them as a draft grate gives with dry wood. Those interested should write the Gordon Hollow Blast Grate Company, Greenville, Michigan, for their Catalogue D.



Corrugated Iron

*For Sidings, Roofings,
Ceilings, Etc.*

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.

The Metallic Roofing Co.
WHOLESALE MANAGERS, LIMITED
TORONTO, CANADA.

PUBLICATIONS.

The Jenckes Machine Company, Sherbrooke, Que., will send post-prid to any address on request their Bulletin No. 616 relating to standard crushing rolls.

A catalogue of narrow band saw tools has been issued by Baldwin, Tutill & Bolton, Grand Rapids, Mich. It should be in the hands of every saw filer.

Sheldon & Sheldon, Galt, Ont., have issued an attractive booklet referring to lumber dry kilns, blower system, lumber trucks, transfer cars, etc. Millmen desiring a copy should ask for Sectional Catalogue No. 16.

The Twentieth Anniversary Edition of the National Coopers' Journal, Philadelphia, Pa., is one of the most attractive and meritorious publications which has yet

reached our desk. This journal evidently enjoys the patronage and esteem of the cooperage trade, and it is well deserved.

JNO. S. FIELDING, C. E.
DAMS
20 King Street East - - TORONTO



THE PIGEON RIVER LUMBER COMPANY PORT ARTHUR, ONT.

MANUFACTURERS OF

Band Sawed White Pine Lumber, Lath, Pine and Cedar Shingles,

are operating their extensive plant night and day, to keep abreast with orders.

THERE IS A BECAUSE—
A trial order will tell you why.

Winnipeg Representative,
D. J. McDONALD, Clarendon Hotel.

The British Columbia Mills, Timber & Trading Co. HEAD OFFICE: VANGOUVER, B. C.

—MANUFACTURERS OF—

Rough and Dressed Fir, Cedar and Spruce Lumber, Mouldings, Turnings, Doors, Windows, Shingles, Lath and

.. PATENTED READY-MADE HOUSES ..

Special attention is called to our exhibit of Ready-made Houses at the Dominion Exposition, Winnipeg. These houses are of patented construction, shipped ready to erect, suitable for either Town requirements or Settlers' use, and peculiarly adapted to local conditions.

WINNIPEG OFFICE: 64 Merchants Bank
H. A. BELL, Special Agent. H. S. GALBRAITH, Manager.

Perfect Swing Shingle Mill

Fitted with our "Automatic Trip."

Best Swing Shingle Machine on the Market today for cutting Shingles, Headings, Etc. . . .

It will pay you

to write for description and price before placing your order.

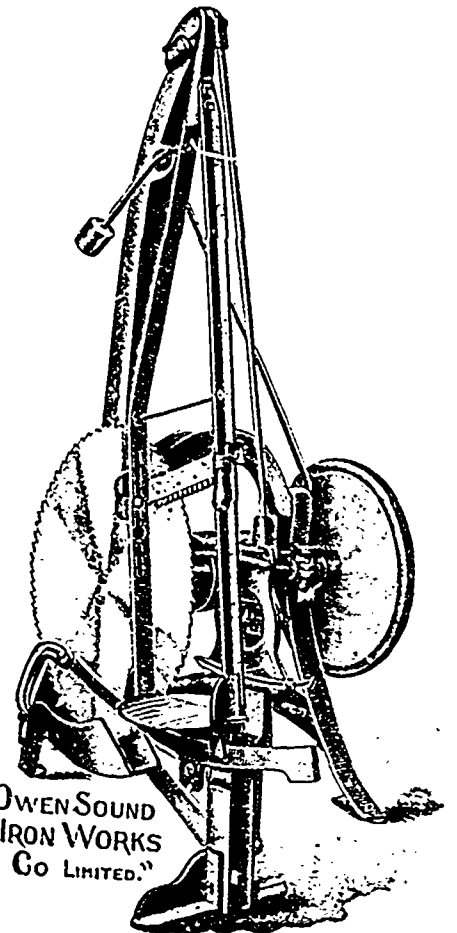
We also Manufacture a complete line of . . .

SAW MILL MACHINERY, ENGINES AND BOILERS

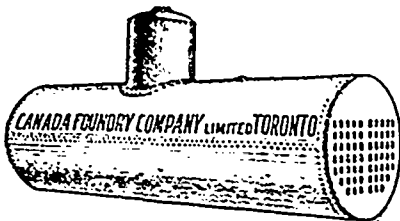
THE **Owen Sound Iron Works Co. LIMITED**

Owen Sound, Ont.

SEND FOR CATALOGUE



STEAM BOILERS



Portable Boilers—Locomotive Style Return Tube Tubular Tanks, Water Towers, Smoke Stack, etc.

CANADA FOUNDRY COMPANY, LIMITED

Head Office and Works: TORONTO, ONT.

District Offices: Montreal Halifax Ottawa Winnipeg Vancouver Rossland Calgary

Special to Lumbermen, Miners and Railway Contractors

WE ARE MANUFACTURERS OF

Mince Meat, Baking Powder, Coffee, Spices, Flavoring Extracts, Mustards, Etc., and all kinds of Grocers' Sundries for Camp Use.

Also Sauer Kraut, Pickles and Sausage Meat

SPECIAL ATTENTION GIVEN TO MAIL ORDERS.



The Capstan Manufacturing Co., Toronto, Ont., Can.

USE YOUR SAWDUST.

The accumulation of sawdust and other refuse around a mill is a prolific source of fires. It must inevitably increase the rate of insurance. The latter is also true of the so-called "hell-hole," fed by a conveyor. Again, the sawdust heap is so unsightly, and takes up room, while its formation represents considerable labor, on the part of men and teams. It often happens that, while the refuse is being carried to the dump heap, saleable wood is being used to fire the boilers.

Now, it seems a self-evident proposition that in a case of this kind a grate that would consume the sawdust under the boilers, and save the aforesaid wood, permitting it to be sold, would be an excellent investment. It would save the expense of hauling the sawdust away, reduce the risk of fire, probably reduce the insurance rate, and render it possible to sell, often at a good figure, the wood that is now being used to run the mill.

We suggest that those interested in this subject take the matter up with the Gordon Hollow Blast Grate Company,

of Greenville, Michigan, manufacturers of the celebrated Gordon Hollow Blast Grate, which runs a mill with its sawdust and other refuse, even though wet, green or frozen. The grate is sold on approval, thirty days being given in which to thoroughly test it.

P. PAYETTE & CO.

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

THE LUMBER MUTUAL FIRE INSURANCE COMPANY

OF BOSTON, MASS.

DIVIDEND TO POLICY HOLDERSTOTAL SAVED
POLICY HOLDERSDividends Paid to Date
\$97,394.13**30%**SURE INDEMNITY
PROMPT ADJUSTMENTSLosses Paid to Date
\$189,760.03

MAIL YOUR EXPIRING POLICIES WITH ORDER.

THE DISTINGUISHING MARKFactories 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.
SADLER & HAWORTH
 TANNERS & MANUFACTURERS OF
OAK LEATHER BELTING
 AND LACE LEATHER
HYDRAULIC & MECHANICAL LEATHERS

DEALERS IN GENERAL MILL SUPPLIES

MONTREAL.

Corner William & Seigneurs Sts.

TORONTO.

9 Jordan St.

PATENT FOR CENTERING LOGS.

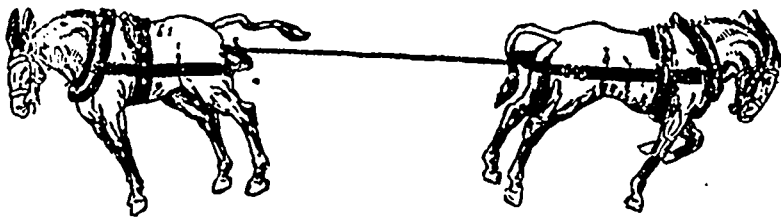
W. H. Welton is the inventor of an improved means for centering logs, which has been assigned to the Hastings Shingle Manufacturing Company of Vancouver, and on which a Canadian patent has just been received. The invention consists of a means for supporting a log at the ends of its longitudinal axis in such a manner as to allow it to rotate freely as required in the radial board-cutting system, which has been introduced

in Messrs. McNair Bros.' No. 2 mill, and which is the subject of further patents. Where cedar logs of larger diameter are used, which are the ones best adapted for this system of radial board cutting, and which are generally hollow or decayed toward the heart, it becomes necessary to provide an axial support while the log is being operated upon, and the device which is the subject of this patent consists of a means of forming a series of annular grooves in the end of the log,

and a metal plate having corresponding projecting rings and a centre support.—British Columbia Lumberman.

Not Like a Hollow Log

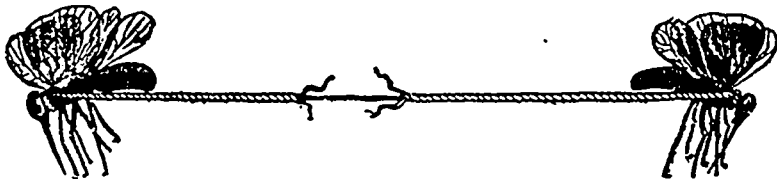
The fins that hold Clark's Corned Beef are chock full of prime Canadian beef properly prepared. Look for the name of Wm. Clark, Montreal, and get flavor as well as quantity.



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,
Shingle Yarn, and Cordage**

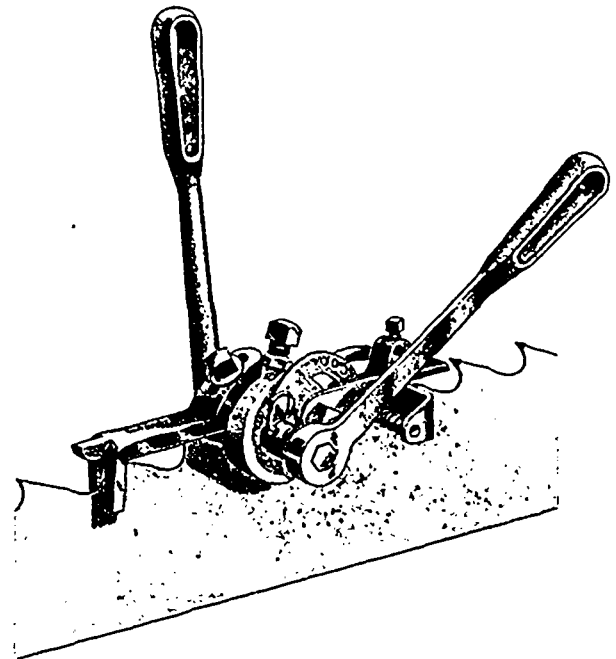
Of Every Description

Our mills are equipped with the latest improved machinery for making extra long lengths of Transmission Rope.

CONSUMERS CORDAGE CO., LIMITED
Montreal and Halifax

Crowell Saw Swages

Our Swages are conceded to be the finest ones on the market to-day, and are giving perfect satisfaction wherever used. The CROWELL SWAGES are easily adjusted and simple to manage, they spread and swage the teeth with the LEAST WASTE of any SWAGE on the MARKET.



Cut Showing Band Saw Swage.

Our Swages work equally well on Band or Circular Saws, and do perfect work without front guard or back-stop, although these are convenient and always supplied. We make NOTHING BUT SAW SWAGES, and use the finest material obtainable in manufacturing. Our Swages have many points of superiority over all other makes. A "Crowell Swage" used on your saws will enable you to make more and better lumber.

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

D. J. CROWELL, 200 The Terrace
BUFFALO, N. Y.

C. H. VOGEL
A. M. Can. Soc. C. E. ENGINEER
OTTAWA, CAN.
Surveys, Plans, Specifications and Supervision
WATER POWER
Paper, Pulp and Sulphite Fibre Mills

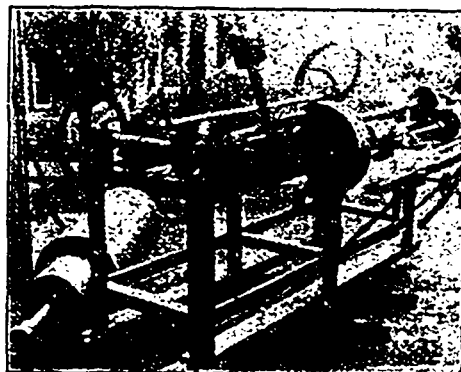
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OUR EXTRA HAND-MADE AXE

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

CAMPBELL BROS. Mfrs.
St. John, N.B.

Saw Grinders



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 Joints and Knife Joints, 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.

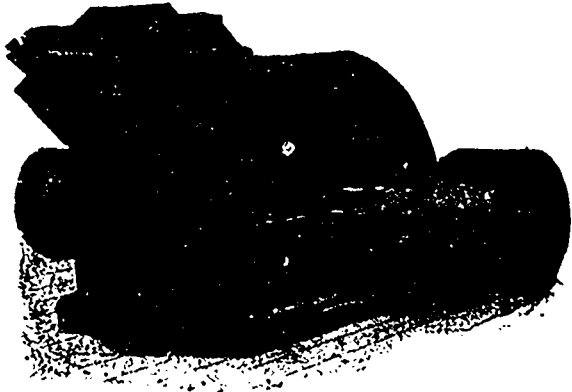
B. R. Mowry & Sons, GRAVENHURST, ONTARIO

A. F. BARTLETT & CO.

Manufacturers of and Dealers in

Engines, Boilers Saw Mill Machinery

Etc.



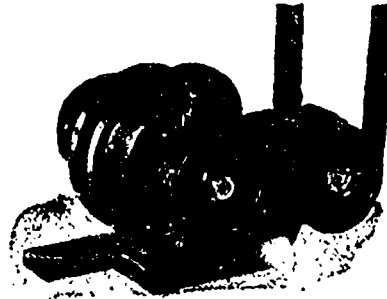
This is
our Saw
Mill Hog
or
Edging
Grinder

If you have no Hog write us for circulars and let us tell you all about ours. They save their cost in a short time. Write for our Stock List of New and Second Hand Machinery.

A. F. BARTLETT & CO. · Saginaw, Mich.

SHERMAN MACHINES

Have always taken
the lead in their
line



FACE BORING MACHINE FOR JOINTED BORING

is our latest production. It does the work without extra cost while the flooring strip is being run through the flooring machine. Get a machine and get ahead of the other fellow by putting jointed and bored flooring on the market before he does. Write for cuts and descriptions of our machines, also for list of users.

SHERMAN END MATCHER

for end matching flooring strips and the

SHERMAN SIDE BORING MACHINES

for boring flooring strips.

W. S. SHERMAN CO.

1150 HOLTON ST., MILWAUKEE, WIS.

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

DENTON, DUNN & BOULTBEE
Barristers, Solicitors, Notaries, etc.
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Manufacturers High-grade Cylinder, Machine and Sawmill Oils.

Calypsol Grease

for Sawmill Purposes a Specialty. Our products are made from finest Pennsylvania stocks.

We solicit your correspondence.

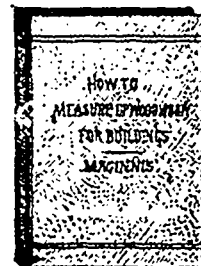
St. John St., MONTREAL. Commercial Oil Co., Hamilton, Ont.
Offices and Works: Manchester, Eng. Hamburg, Germany. Newark, N. J. Chicago, Ill.

BLUNDERS

in ordering woodwork may be avoided by correct measuring. Rules and directions are given in the new book . . .

HOW TO MEASURE UP WOODWORK FOR BUILDINGS

By OWEN B. MACINNIS
Author of "Roof Framing," "Bricklaying," etc.



79 Pages
161 Illustrations
Useful Tables
Well Printed
Neatly Bound
Price 50 cents

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The A. J. Burton Saw Co., Limited, Vancouver, B.C.

INCORPORATED 1904

AUTHORIZED CAPITAL, \$75,000, IN 750 SHARES OF \$100 EACH

A. J. BURTON, Managing Director.
HERBERT WILKINSON, Secretary-Treasurer.

BOARD OF DIRECTORS: ROBERT JARDINE, President; DR. E. SAWYER, Vice-President; E. W. McLEAN, HENRY PIM, A. J. BURTON.

BANKERS, *Molson's Bank*, Vancouver, B.C.: OFFICE AND WORKS, Corner of Powell Street and McLean Drive, Vancouver, B.C.

The company is offering stock to the public at par.

The company has purchased land, consisting of four lots, upon the corner of McLean Drive and Powell Street, Vancouver, B.C., facing Powell Street, and running back to the C.P.R. track, and with one side upon McLean Drive, (now opened up). The whole measuring 185 ft. by 132 ft.

Upon this a building has been erected, 85 ft. by 40 ft., two floors, with a tempering shop 26 ft. by 32 ft. one floor at one side.

A 50 h.p. motor and the main shafting and pulleys are already installed. A portion of the machinery has been ordered, including a milling machine for the inserted-teeth saws, a heavy parallel grinder for band saws, and the material for the tempering furnace.

The company is having its circular saw grinding machine built after the latest improved American model.

The stock already sold is more than sufficient to cover the cost of the land, buildings and the machinery and supplies now in hand and ordered.

Further stock is now offered for purchasing the further necessary plant and supplies, to complete the whole, and enable the company to execute the orders which are already promised to the company.

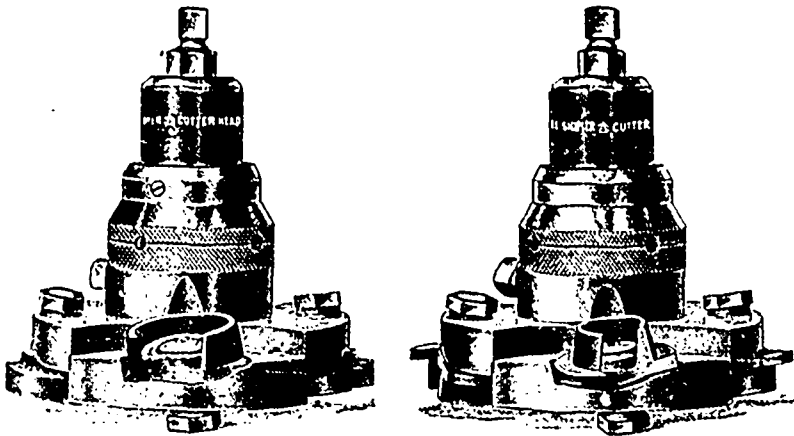
The inquiries already received from users of the company's manufactures ensures that the works will be fully occupied in executing orders, and sufficient land is owned by the company for extending the works when the needs demand it.

The company enjoys the advantages of cheaper fuel for the tempering furnaces, and oil for hardening, than can be obtained in Eastern Canada, and Messrs. Jessop, of Sheffield, have quoted the company the same prices for their steel delivered at Vancouver as at Toronto.

Applications for shares will be received by the Secretary, HERBERT WILKINSON at the company's offices, corner Powell Street and McLean Drive, Vancouver, British Columbia.

The Shimer Gutter Heads

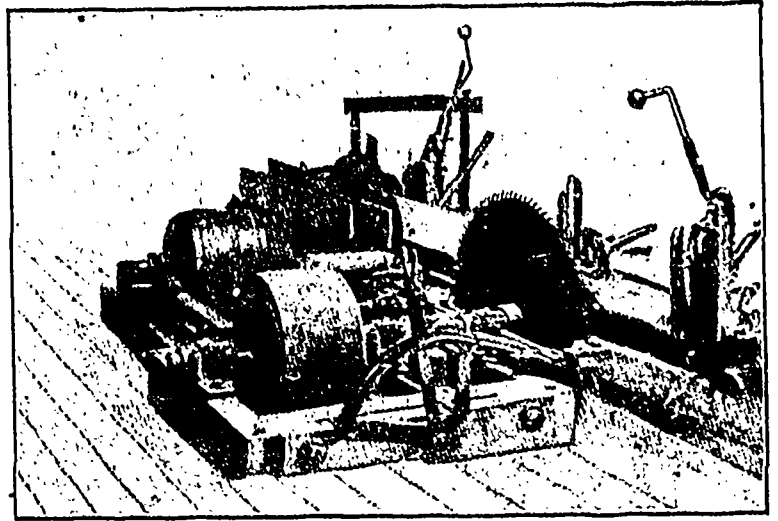
WITH EXPANSION



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

SAMUEL J. SHIMER & SONS
Milton, Pennsylvania



"KILLAM'S TANDEM CIRCULAR SAW MILL"

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, thus 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.

No difficulties in handling or setting by this machine and no delays.

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 slide 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 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,
Dec. 31, 1903.

DICKIE & McGRATH, Tusket, N. S.

ADAM HALL,

PETERBOROUGH, ONTARIO,
CANADA

MANUFACTURER OF

STEEL RANGES

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

The Lumberman Heater

- 36 Inch Lumberman Heater
- 42 Inch Lumberman Heater
- 48 Inch Lumberman Heater

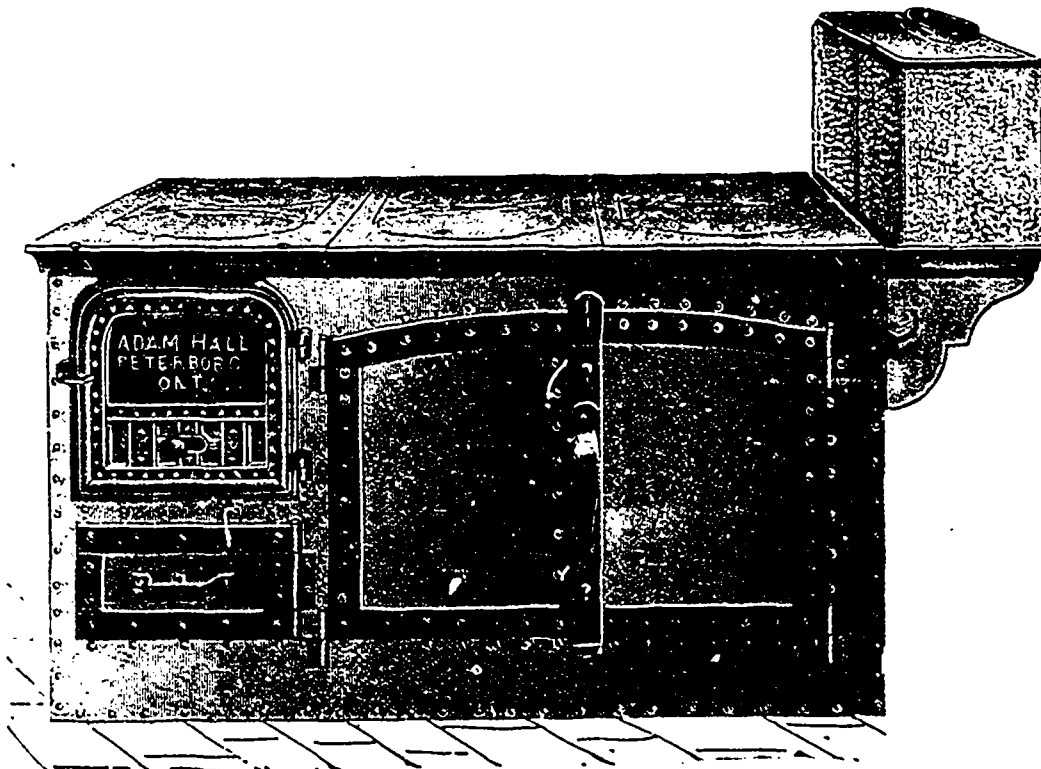
This Heater is used in heating Lumbermen's Camps, Boarding Houses, School Houses and large buildings.

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

It is a perfect Heater, and very durable.

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

This No. 10-25 Range with 25 Gallon Copper Reservoir is the one we sell the most of, owing to the convenience of having a supply of hot water at all times. Will cook for 50 to 60 men. Weighs 450 pounds.



Lumbermen's Six Pot Hole Range with Reservoir.

Write for Catalogue and Price List.

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THE

"Acme" Brand

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Shoe Packs, Larrigans and Moccasins



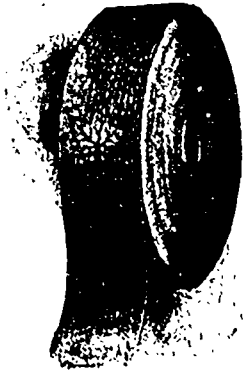
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I confine myself exclusively to the manufacture of this line of goods, having an up-to-date tannery, also years of experience myself. I am prepared to fill all orders promptly and guarantee to give satisfaction at lowest possible prices.

WM. A. HOLT,
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**SUPERIOR TO ALL OTHERS
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Agricultural Machines, Elevators, Pulp and Paper Mills, Cotton, Wool- len, Cement and Saw Mills, Machine Shops and Electric Powers.

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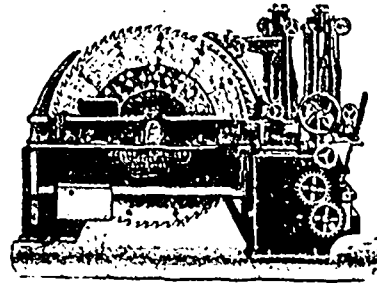
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USE OUR

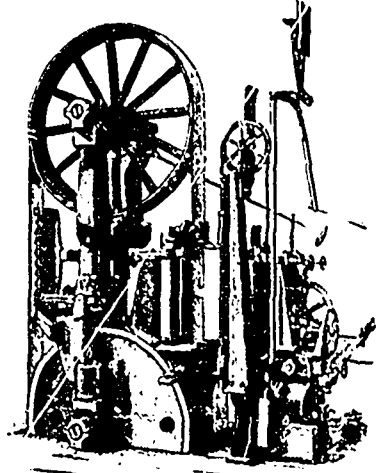
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Gonnell & Dendler Machine Co.

ROCHESTER, N. Y.



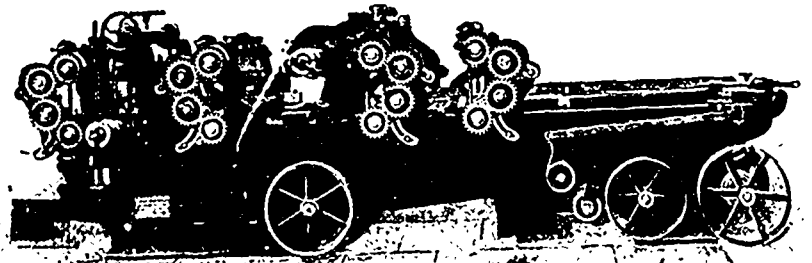
44 inch Circular Re-Saw.



60 inch Band Re-Saw.

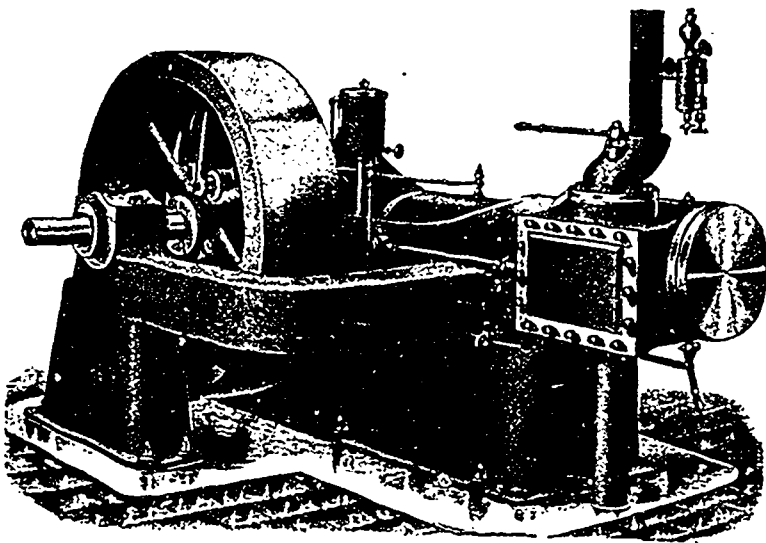
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**Box Makers' and
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Heavy 26 inch Divided Roll Planer and Mat her with 8 Feed Rolls.

A GOOD RECORD

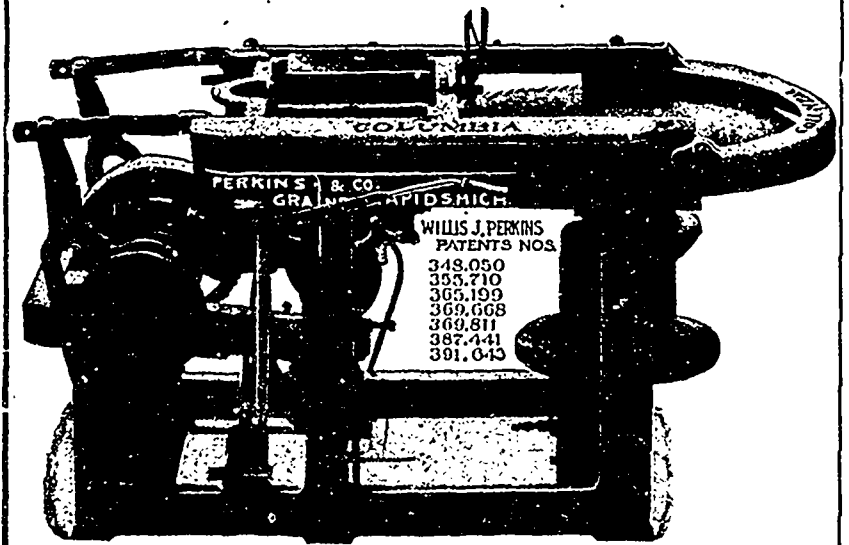


A CUSTOMER SAYS:

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

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Agents : William McKay, 320 Ossington Avenue, Toronto.
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Not by the money they make—but by the money they save. Any- thing that will save money and help them to the coveted "million" is quickly utilized by the up-to-date millman. That is why so many of them are using our

COLUMBIA SHINGLE MACHINE

Because it is a money saver as well as a money maker from the first day it is put in. Absolutely the swiftest, strongest, safest and easiest operated shingle machine on the market to-day. The only one with point regulation enabling you to make 1,000 additional shingles from every thousand feet of logs. Every shingle manu- facturer should know all about this machine. Write us.

PERKINS & Co., Shingle, Heading and Box Board Machinery. Grand Rapids, Mich.

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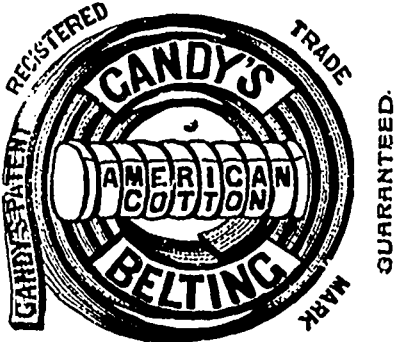
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EVERYTHING IN CANVAS MANUFACTURED.

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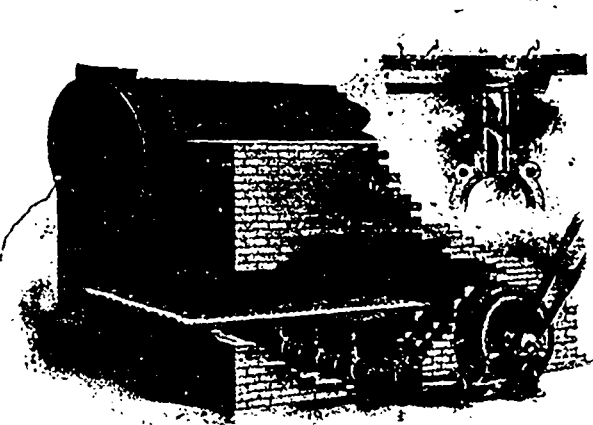


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It makes two boilers do the work of three.
 It runs a mill with wet, green or frozen sawdust or other refuse.
 It outlasts from three to five sets of draft grates.
 Its durability is such that in the end it is the cheapest grate made, in addition to which it frequently pays for itself every thirty days by reason of its wonderful efficiency in promoting combustion.



It is sold on approval, thirty days being given in which to thoroughly test it. If unsatisfactory, it may be returned at our expense.

The blacksmith could not get along without his forge, nor could the founder melt his iron without a blast. In like manner, the user of the Gordon Hollow Blast Grate soon finds it indispensable. It has helped others; why not you?

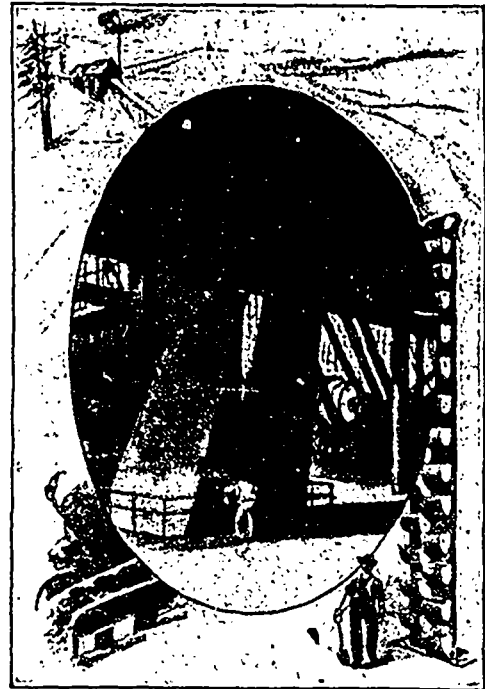
In writing for prices, give number of boilers, width of furnaces or ovens and length of grates.

The Gordon Hollow Blast Grate Co., Greenville, Mich.
 ESTABLISHED 1889.

The largest manufacturer of Blast Grates, Edgers and Trimmers in the world.
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Branches: Montreal, Winnipeg.

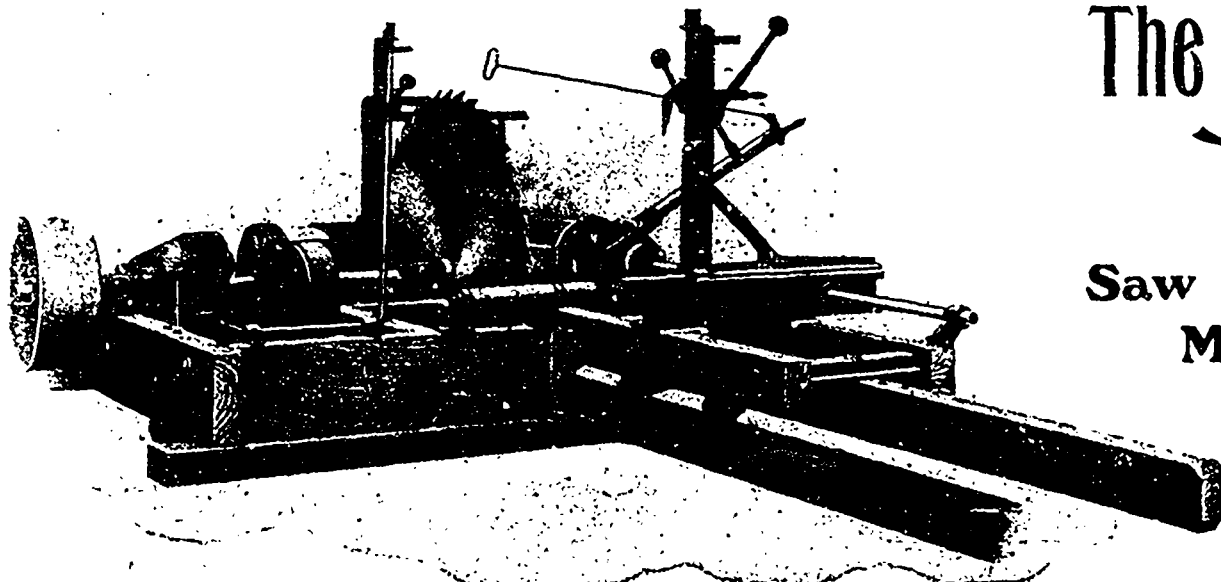
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**Saw Mills,
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Correspondence from Canadian Mill Men invited. Send for a copy of our handsome Catalogue. It will interest you.



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ROSSENDALE BELTING CO.
LIMITED**

Manufacturers of the well-known
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**"HAIR" AND "MAYAVE"
(BALATA) BELTINGS**

Specially adapted for work in damp
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Write, phone or wire for Catalogue and quotations. Stocks carried at our Canadian branch

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**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 1/2 inch to 3 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.

When using a Babbitt Metal in your Bearings use

Manganese Anti-Friction Metal

Every pound guaranteed.

SYRACUSE SMELTING WORKS

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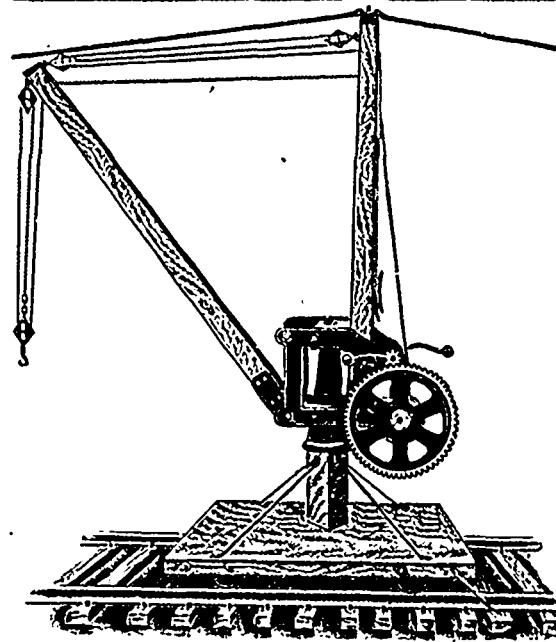
...BUCKEYE SAW M'FG. CO...

MANUFACTURERS OF

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Quick and careful work on Repairing.
All kinds of Mill Supplies.

REYNOLDS BROS., Proprietors
267 N. Water Street, COLUMBUS OHIO.



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of all descriptions
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Special Derricks
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Grubbing Machines

for Hand and
Horse Power

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WOODWORKERS SAY
"The convenience to the Sawyer and
the saving in lumber make the
STANDARD AUTOMATIC SAW GAUGE
an article of much merit."

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**THE HILL
NEW ROTARY STEAM FEED VALVE**

Easiest
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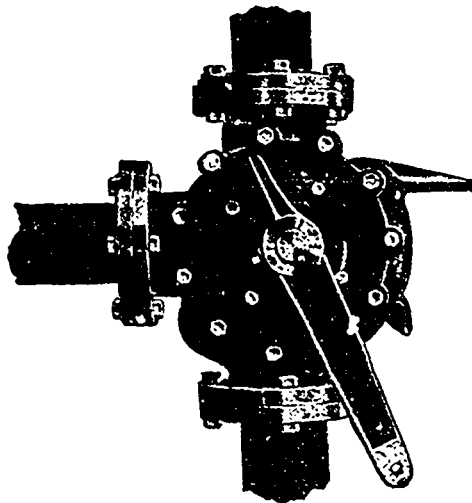
Perfectly
Balanced

Will Fit
Any Feed

Will Not
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No Jerking
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Pressure



You will Make Your Sawyer Happy
If You Order a Pair of These Valves

Write for Circular No. B.

W.M. E. HILL & CO.

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THE BEST IN THE WORLD
There is no doubt about the fact that the
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,
WEYERHAEUSER & DENKMAN.

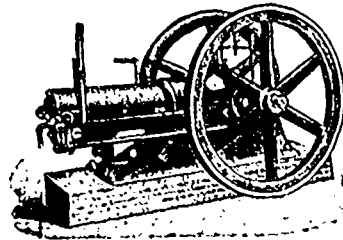
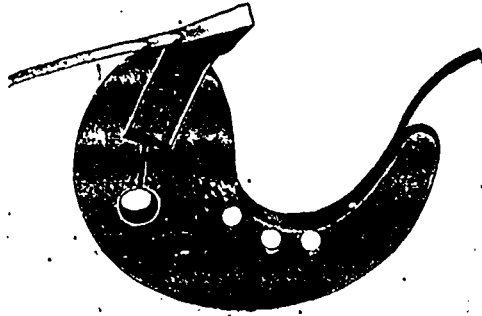
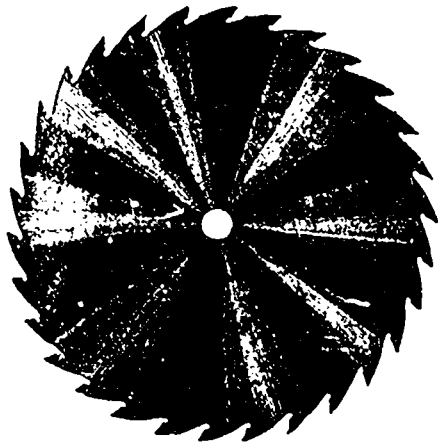
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Solid and Inserted-Tooth Circular Saws, Gang, Drag and Cross-Cut Saws

GAS OR GASOLINE ENGINES



CHAMPION GAS ENGINES

Have no Superior.
Simple in Construction.
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Easily Operated.

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Saw Mills

Portable and Stationary

Mill Dogs, Edgers and Mill Supplies

High Grade Portable and

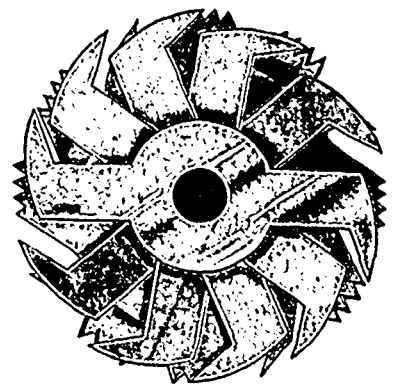
Stationary Engines and Boilers

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

HUTHER BROS. PATENT GROOVER OR DADO HEAD

For cutting any width groove from 1/8-inch to 2 inches or over

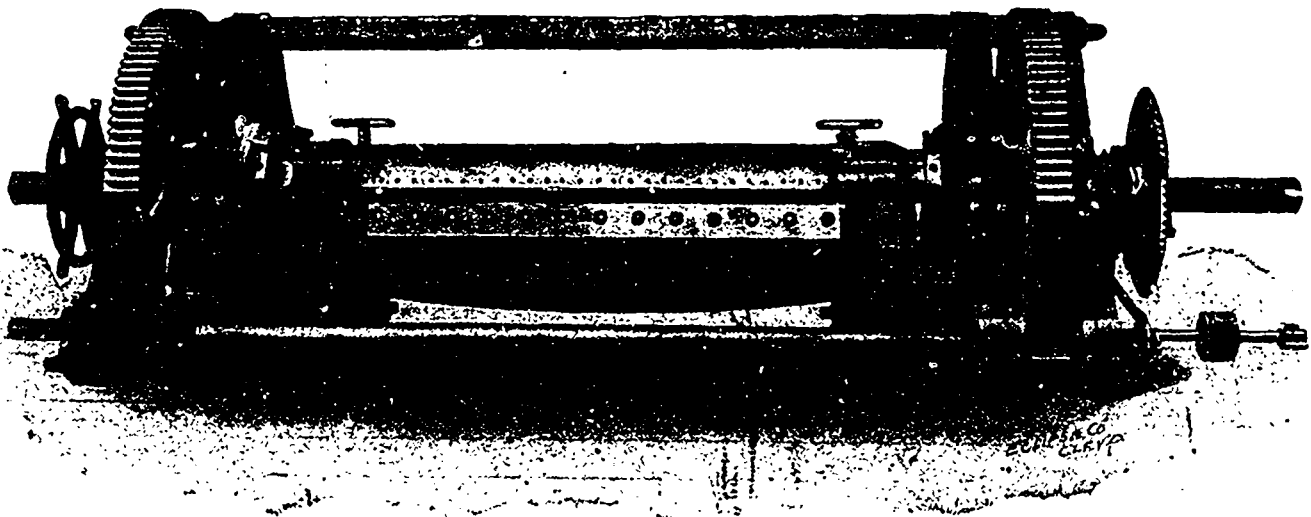


Can be used on any Circular Saw Mandrel. Will cut a perfect groove with or across the grain.
This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers 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 GOE MANUFACTURING COMPANY, Painesville, Ohio, U. S. A.

Established 1852.

Largest Builders of Veneer Cutting Machinery in the world.

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SCRIBNER'S LUMBER
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A handy book for Lumbermen,
 Gives Correct Measurements of
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Price 35 Cents

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Reliable
Veterinary
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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.

They are
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 A penetrating Alcoholic Liniment. Put up in one gallon jugs, with full directions, per imperial gal. \$4.50

Johnson's Horse Liniment No. 2.
 A combination of the best oils used as liniments, imp. gallon . . . \$3.00

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 A sure and speedy cure for colic imperial gallon \$5.00

Johnson's Veterinary Healing Ointment.
 Positively the best all-round healing ointment made. In use by the largest owners of horse flesh in Canada. Put up in 2 lb tins, each . . . \$2.00 or in 1/2 lb tins, per dozen . . \$3.00

Johnson's Condition Powders. (Concentrated).
 Put up in bulk, per lb. 3c.

These goods being put up in bulk are more economical than others, as cost of bottling, etc., is saved.

CAMP REMEDIES.
 In addition to our Veterinary Remedies we make a line of medicines for lumbermen, including a strong, penetrating liniment, healing ointment, cholera cure, liver pills, cough syrup, in fact anything in the form of Camp Drug Supplies. We know that there are no better remedies made than those we offer. There may be others nearly as good, but they lack our guarantee. Satisfaction or money back. A trade discount of 10% allowed off all orders amounting to \$100.

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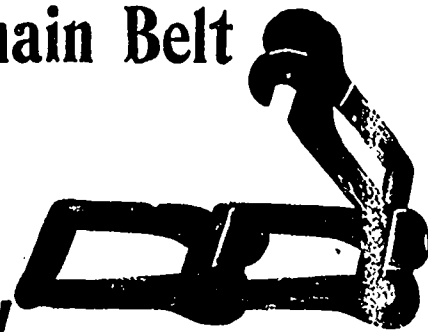
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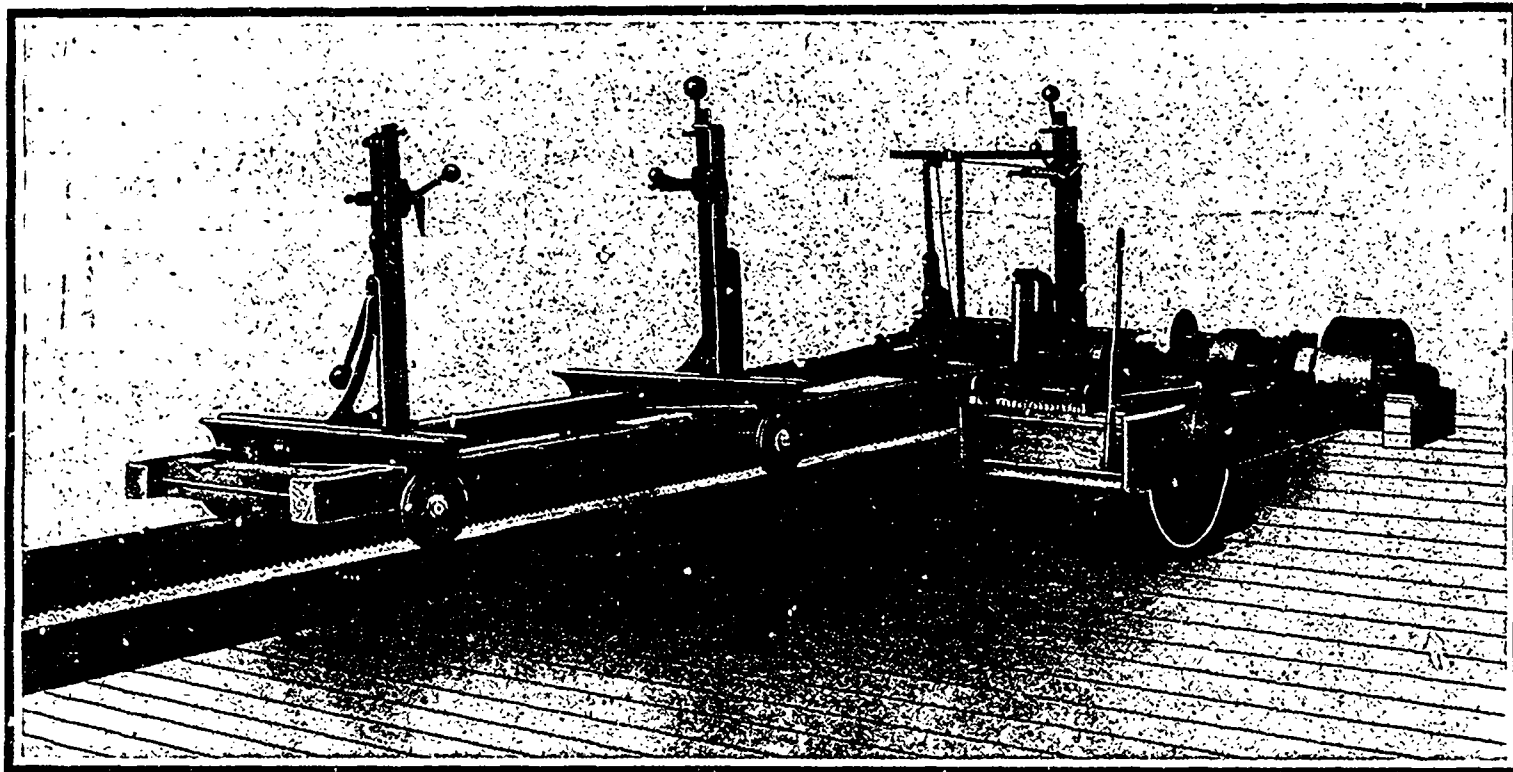
Nobody knows where to buy if
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 Constant Advertising tells the "Where."

Anybody nowadays must advertise,
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SEND FOR SAMPLE COPY AND ADVERTISING RATES

THE E. LONG MANUFACTURING COMPANY

ORILLIA, ONTARIO, CANADA



The above cut represents our new No. 0 Sawmill, capacity 5,000 to 8,000 ft. per day, to carry up to a 56" saw.

DUNCAN & McLENNAN,

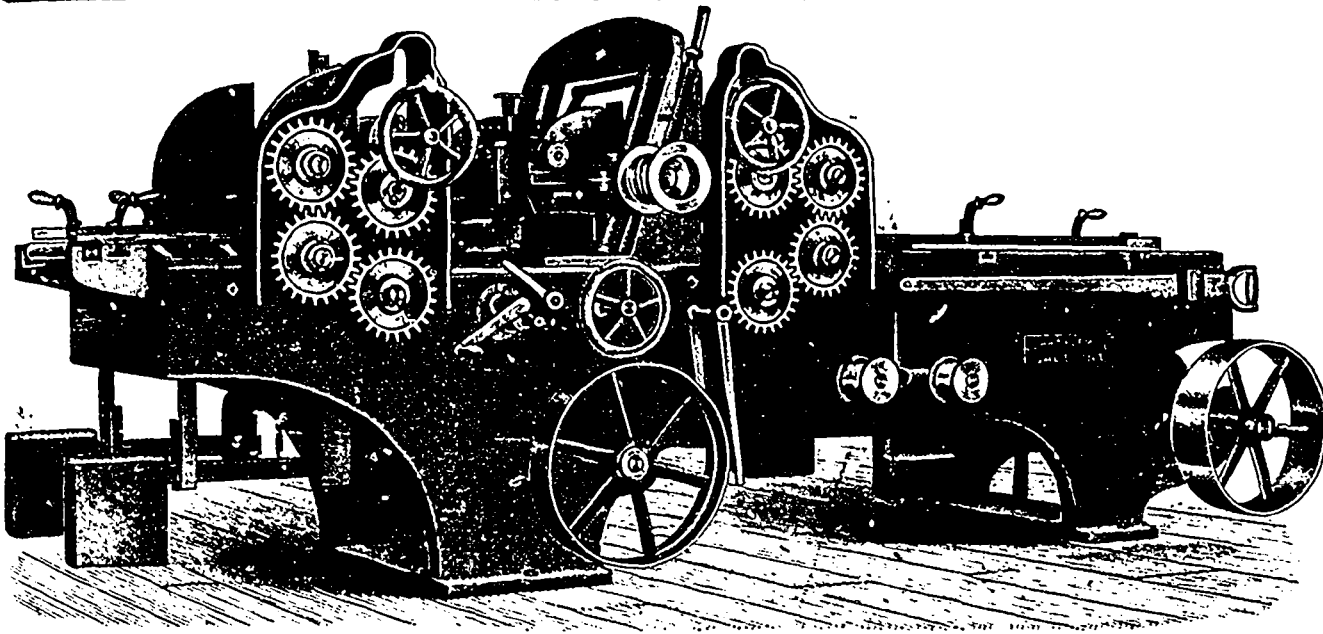
IRON AND BRASS FOUNDERS AND MACHINISTS

**ENGINES, BOILERS,
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MILL MACHINERY, MACHINERY REPAIRS**

ELECTRIC PLANTS, ETC., ETC.

CASTINGS OF ALL KINDS, ETC., ETC.

CAMPBELLTON, N. B.



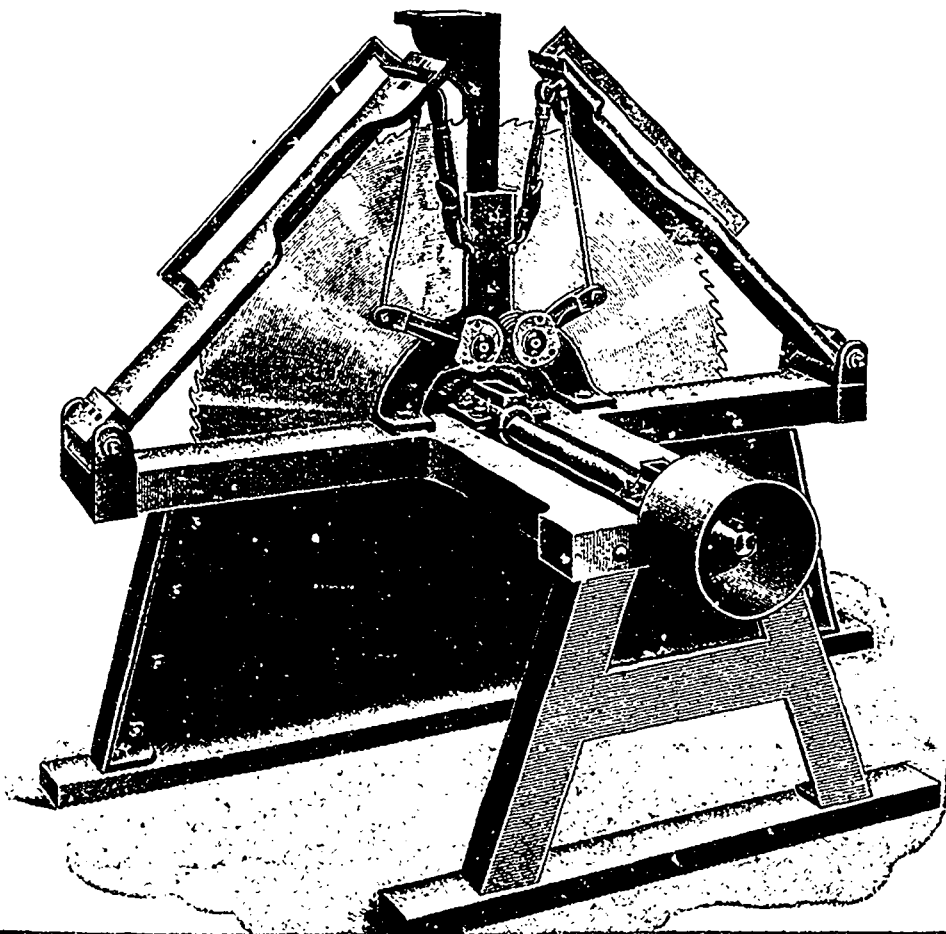
Our No. 72 LIGHTNING PLANER AND MATCHER

Kind note that we make this machine in different sizes, single or double cylinder, as desired. Parties desiring thoroughly up-to-date machinery, will find it to their advantage to write us before placing their order.

Write for new Catalogue.

Clark & Demill
Galt, Ont.

THE "CANADIAN" SHINGLE AND HEADING EDGER



Has solid iron frame. Made for two operators. Drive pulley, unless otherwise ordered, is 8 inch diameter for 6 inch belt. Heavy steel saw arbor with extra long bearings. The saw is 40 inches in diameter, 16 gauge, 100 teeth, and should run 1,600 revolutions per minute. The saw can be easily removed for filing when necessary.

The Spring Boards are fitted with guards to protect the operator from the saw. The springs can be easily adjusted for any desired tension.

This machine is a "timber saver" and will make more No. 1 Shingles from same quantity of timber than any wheel jointer in existence. Mill men who have once used it will not have any other.

For capacity, removing sap-wood, rot, knots, or other imperfections, or making parallel shingles, and economy of stock, it has no equal.

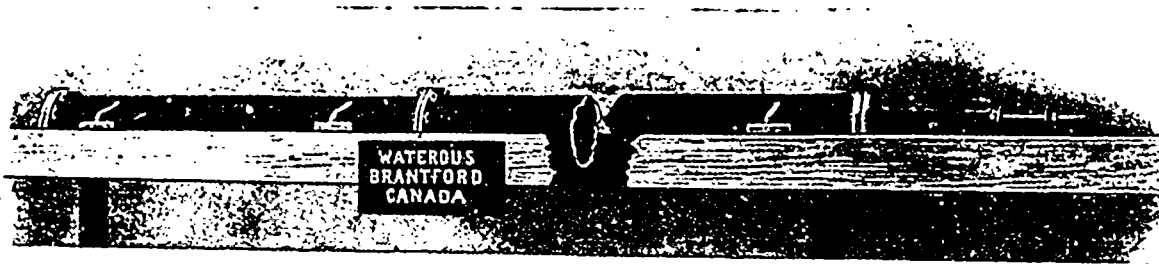
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BELLEVILLE, Ont.

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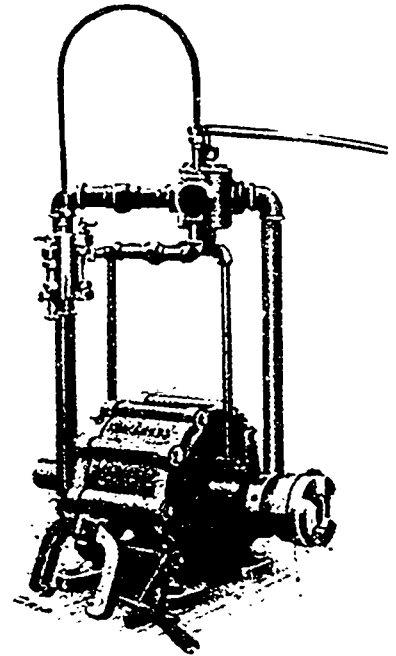
This is most essential in the operation of your mill and a reliable FEED will help towards this end fully more than any other mechanism about it. . .



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Standard sizes 7", 7½", 8", 9", 10", 11" and 12".
Cylinders in six foot lengths.

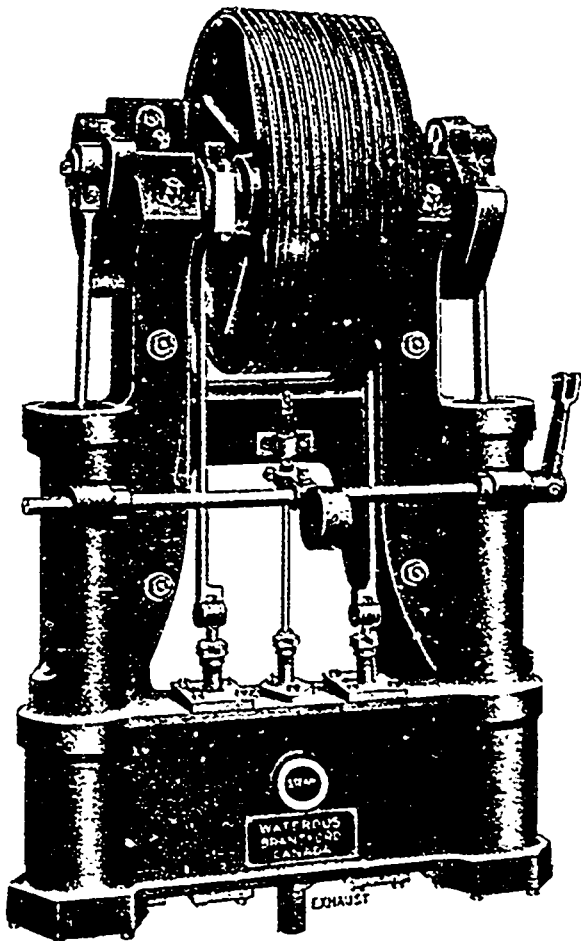
These FEEDS are provided with our latest PATENT VALVES—the best in valve construction, works easily and certainly.



THE SOULE ROTARY STEAM FEED

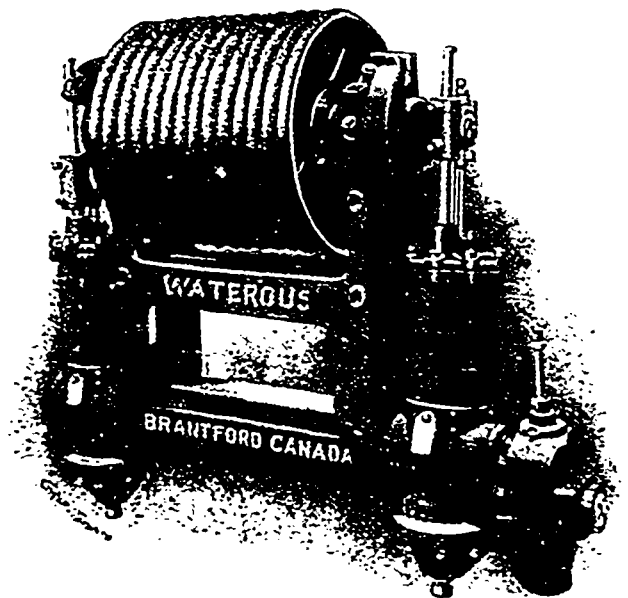
A splendid Feed for small mills—small and compact, therefore takes up little room and readily installed, a safe means of increasing the capacity of your mill, and made in the following sizes:

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No. 3 Feed has 2" pipe, suitable for 30,000 capacity.
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THE BECK PATENT DUPLEX ENGINE FEED

is not surpassed by any other similar Feed that is made, easy to handle, easy on steam, no leaky joints, no trunnions to wear. We furnish these FEEDS complete with two sheaves, all fittings and castings for attaching ropes to carriages. The Beck Feed stands for Capacity, Reliability and Economy.



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Write Us for Prices on These Feeds

And We Will Gladly Furnish Prices and Estimates on Machines for Saw Mills, Pulp Mills, Steam Plants, Boilers, Engines, Etc.

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NATURAL DRAFT **DRY KILNS**
MOIST AIR . .

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Easy-Running, Everlasting
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Wheels of unbreakable malleable iron.

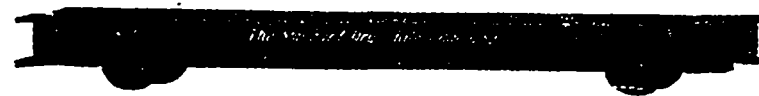
Steel roller bearings with cone-shape ends that substantially reduce the friction caused by the old-style flat end bearings.

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The Standard
Channel Steel, Roller Bearing
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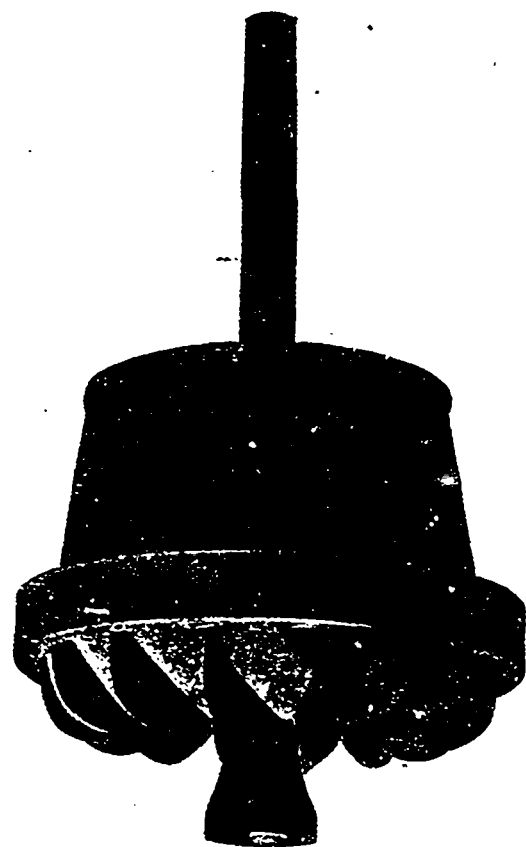
all to pieces without injuring any of its parts—which you can't do with a truck that has riveted axles.

Made in all styles and sizes. Our Catalogue "D" describes and illustrates them. Pleased to send you a copy on request.



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THE TRIUMPH TURBINE



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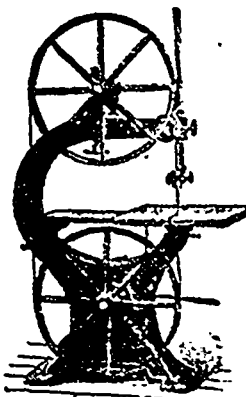
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STEEL STAMPS
Our product is first-class in every particular, and prices are satisfactory.
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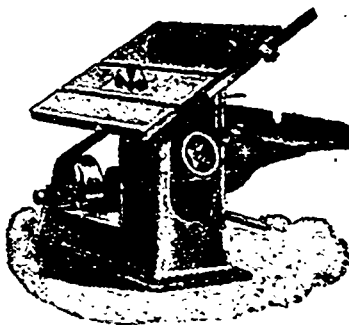
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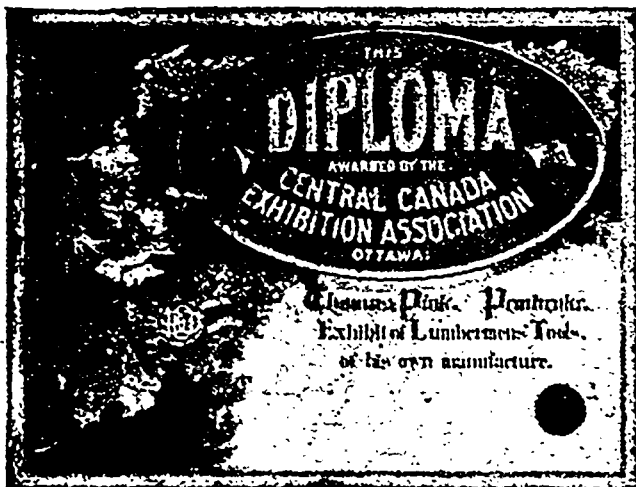
H. W. PETRIE
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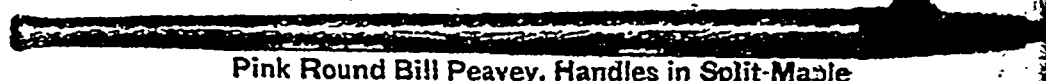
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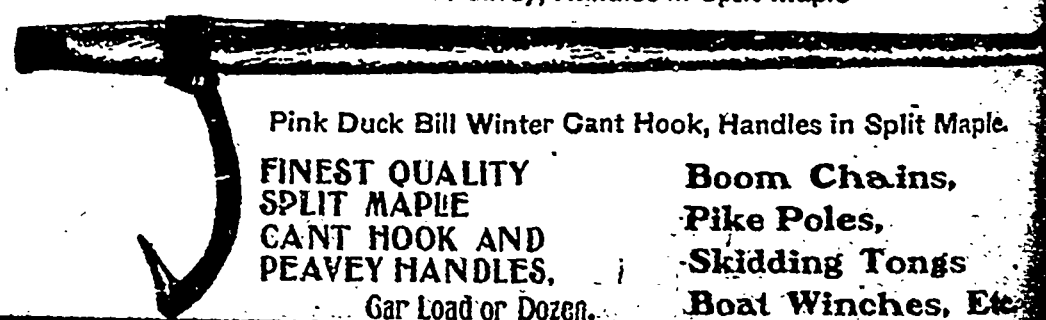
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