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FRASER \& COMFANY'S NEW .MILL AT DESCHENE.
The new saw mill of Fraser \& Company, which was erected during the winter of syoz-3, is situated on the nurth shore of Lake Deschene, on the Ottawa River, about 7 miles above Ottawa city, and on the line of the Hull Electric Railway and the Pontiac branch of the Ottawa,

Allis-Chalmers dowble-cutting telescopic band mills, with iwo of Waterous' heavy cast steel carriages, one having trailer for long timber; one Mershon 7 -fout band resalw, and iwu Rogers' duable edgers, one of these edgers being arranged with a gang side of ten saws 6 take 8 inch cants. Fig. 1 shows the two double cutting band mills and the resalw.
ser or slash as required, or, if finished, allowed to pass on to end of rollers.

The resaw is situated directly between and behind the band mills and takes zants lor centre cutting and any large slabs, from each mill. The edgers are situated further down and between the live rolls from band mills and resaw, with live transfers so arranged that sidings can


Fig. i.-View of band Resaw and Rear View of Two Double Cutting Band Mills.

Northern and Western Railway. It is one of the inost up-to-date mills in Canada.

The foundation of the main building and lath raill is laid on concrete piers, which go down to solid rock, and each post of the mill frame rests directly upon one of these, thus obviating the necessity of boltom sills. The mill proper (Fig. 2) is 85 feet by 208 feet leng, and the lath mill annex 45 feet by 55 feet.

The sawing finor at present consists of two

Each or any one machine can be stopped] or started independent of each other, all of them being arranged with clutches or frictions.

The live rolls from the bands extend in front of the log deck, the log being carried over these by a steam log loader with extended arms; the lumber on the back cut drops on these rolls and passes through the throat of the mill where all lumber and slabs are tripped to the re-saw ed-
be tripped by the off-bearer to either edger from the resaw. All three sets of rolls continue over the slash chains, where slabs are tripped off and the finished lumber passes on from the edgers or live rolls, as the case may be, and is received upon a set of three live camels back or No. 500 chains, which run across the tail end of mill, and is there handied upon the trimming table, which runs upon a slant in an opposite direction and directly under the camel chain,


Fig. :- -.Wist Sine of Milli. and Part of laxi Pond.


Fic. 3.-Vikw of Yiard.
taking the lumber from the sawing floor to the se:ting shed on the ground level.
The sorting shed is some 250 feet long arranged with sets of rollers on each side, the lumber being rolled in stocks upun lorries provided with swing tables and transferred to the yard by horses.

The yard (Fig. 3) is arranged with standard gauge tracks running atright angles with the nill and parallel with each other and spaced about one hundred feet apart. Rollers are also arranged between the piles, which are put up two deep from each track. With this arrangement of rollers the lorries are quickly unloaded and two men with one horse drawing two lorries load and unload between 50,000 and 60,000 feet per day on an average draw of nearly half a mile.

The shipping is done from the same tracks, empty cars being drawn from the siding which enters the rear end of the yard and placed opposite the piles required, and when loaded again drawn to the siding for the engine to take hold of. When the yard is finished there will be from ten to fifteen of these tracks, all connecting with the siding from the railroid at one end and the siding from the mill at the other.
The power plant consists of a solid brick power house, 70 feet $\times 80$ feet, with an iron and steel grider roof, containing six boilers of 150 horse power each, suspended from heavy steel beams in batterics of two each, and arranged with Dutch ovens. The boilers and fittings complete were supplied by W. J. Campbell \& Sons, of Ottawa. The engine is a heavy type Reynolds Corliss of 750 horse power, built by the Allis-Chalmers Company, of Milwaukee. Only four of the boilers are at present being used, the other tivo being for spares or for power in event of increasing the cutting capacity, there being room left for a pair of twins and a gate, or another band-mill, to be added.
The mill was built under the direction of Mr.

The head office of Fraser \& Company is at 74 Nepean strect, Ottawa.

## THE QUESTION OF A LUWBER DUTY.

 [CONTRIEOTRD.]Supply and demand are, as they have always been, factors paramount in regulating the prices of commodities, and, of course, lumber is a much sought atter commodity and subject to the same great law.

Competition is a strong force in regulating prices, and may be said to be a subsidiary to supply, inasmuch as it works on and through supply. In times of prosperity competition is not felt so keenly, but when depressions come its every manifestation is felt by each of its parts in the same line of business.

The lumbermen of British Columbia are feeling this competition from their rivals on the American side, and are agitating to bring about redress of certain existing greivances. They are appealing to the Dominion Government for better legislation in the matter of duty, and the following remarks may help to show the justice of their contention.

During five months at the beginning of 1903, there was iniported into Canada timber and manufactured lumber to the value of $\$ 3,6 \mathrm{Cg}, 272$, of which $\$ 745,432$ was dutiable and $\$ 2,863,840$ free of duty. Of the full amount imported over 96 per cent. came. from the United States, and of this 96 per cent. 80 per cent. was free and the rest dutiable, or for every dollar's value imported therefrom on which we collected revenue, there was $\$ 4.36$ on which we collected no revenue, and not only did over 96 per cent. of all the imports come from the United States, but 78 per cent. of the total amount came on the ftee list from them. Of this amount on the free list, about 92 per cent. consisted of timber, planks and boards.

The Eastern States depend largely for their supplies of spruce, pine, hemlock, etc., on Ontario, Quebec and New Branswick, and


Fig. q.-Lath Piled is Vard.

Charles Proper, the well known millwright of Ottawa, asisted in superintendence by Mr. J. A. Story, manager of Fuaser \& Company's sawn lumber department. Mr. Proper has built twenty-two mills in Canada and the United States, including the mills of J. R. Booth, Gilmour \& Hughson and the Hull Lumber Company at Ottava, McLachlan Bros. at Arnprior, and the James Maclaren Cumpany at Buckingham. He is one of the most capable millwrights of the day, and the new mill of Fraser \& Company is a splendid example of his skill.
therefore those provinces will scarcely be buyers of such commoditics from the States, and hence the bulk of the imports, especially in pine, spruce, cedar, fir, hemlock, etc., are taken into the prairic provinces of the Dominion and to a very large extent are the product of the Western American mills.

Again, these Western mills have an advantage over their Canadian competiôors in that, not only are they protected by their own high tariff rates, but they have the same freight rates over their railroads to most places in the Canadian West as the Western Canadian
manufacturers, and besides they have the same access to Canadian markets as the Canadıan himself for those lines which they find most difficulty in disposing of in their own country. The proportion of high grade lumber and rough is, generally speaking, about I to 3 . Almost always there is a demand for the higher grades, while even in a good market persistent endeavor is necessary to dispose of all the coarser and rough grades.
There is a duty in the United States of $\$$


Fig. 5.-Load of 16 . Foot White pine Saw logs From Fraser \& Company's Eamp on the Coulonge.
per M. feet B. M. on all timber not less than 8 inches square, of one cent. per cubic foot on boards, planks, deals and others of whitewood, sycamore and basswond; of $\$ \mathrm{l}$ per M . feet on any other N. O. P.; and $\$ 2$ per M. feet on rough lumber; on cedar boards, planks or deals 20 per cent. ad valorem; on boards, planks, deals or timbers when planed or fin ished, 50 cents per M. feet B. M. for each side dressed, and when two sides are dressed and tongued and grooved \$1.jo per M. feet B. M.
Now, as we do not ship whitevood, sycamore or basswood from British Columbia, we are subject to a $\$ 2$ duty on any pine, hemiluck, spruce or fir we may wish to send to the United States.

Furthermore, it is only by dressing our dimension stuff to a large extent that we reduce very materially the weight, and are enabled to reduce the cost of freight and so increase the duty. Heavy dimensions are all dressed on at least two sides, and this adds another dollar to the duty charges on shipping into the United States, making a handicap against us or $\$_{3}$ per M. on these grades which we have to bear if we seek to enter American territory with our coarser grades.

And what are the conditions when the Amcrican enters our market? Why! he can bring in all his undressed lumber free of duty as well as his dimension stuff, and can even go to the length of dressing one side and still bring it in free. If two sides are dressed he pays then only jo cents per M. feet duty

Taking, therefore, these points into consideration and reviewing the position as it is now, the British Columbia manufacturers are more than justified in their contention. The American has his own market entirely protected, where he can sell all his higher grade lines at a fair margin, which profit is good enough to allow him to dump his surplus rough grades into the Canadian market at a figure below the actual cost of production and other charges incurred
in laying it down there, and so to save his own market and seriously demoralize that of his competitors. Such a thing is actually being tone at present and will continue as long as the unfair conditions prevail.
Another point is that the Canadian manufacturers have to pay a duty of 30 per cent. on the majority of their plant which they are compelled to procure on the American side, and so the initial cost of manufacturing is considerably augmented.
The question cannot be too emphatically raised before the Dominion authorities and legislation brought about to immediately remedy the present state of things. The lumber industry is of vast importance to British Columbia and Western Canada, and to protect and foster the expansion thereof is surely a matter of the greatest importance. The contention of the manufacturers to increase the duty to be equal at any rate to that imposed by the United States Government is certainly only fair and just.

## PLAN FOR WOOD.WORKING FACTORY.

The engravings show first and second floor plan of a shop designed by Mr. N. A. Curtis and published in the October number of Carpentry and Building, New York city. This shop is designed to meet the requirements in the smaller cities and towns. The main building is of brick, $45 \times 85$ feet. The engine room is $22 \times 24$ feet. In presenting the plans Mr. Curtis says:
The buildings are of brick, the main one being two storeys and basement in height. The lower storey has a 16 inch wall and the second storey a 12 -inch wall. This, at first, may appear heavy, but whether a shop be built in a small town or large city, the building should be equally strong. Especially is this true in a wood-working shop, as there is no class of machinery which receives as rough usage, runs out of balance and tends to shake the walls of a building as that built for working wood. My

experience has taught that a few hundred dollars added to the first cost in streugthening the building will double the life of it, while at the same time there will be greater satisfaction in turning out the work. Another reason for strengtin in building is that if at any time an increase in business demands more room, the roof can be raised and an additional storey or two be put on without fear of the lower portion being too weak to sustain the extra weight.

I have provided une row of posts running lengthwise of the buildug in the basement and first foor, only the basement posts and girders are $12 \times 12$ mehes, while those on the first flour are toxio inches.
The main line shaft is located in the basement, as indicated on the first floor plan. My reasons for running the lite shaft under the foor are that the machinery is belted from below, and it runs steadier by bearing down upon it. The belts are also out of the way, allowing freedom of handling stock, which is not nbtained when the machinery is belted from above.
Starting at the back end of the shop on the first floor, we have the double surfacer, from which the stuff generally gocs to the rip saw, which is conveniently located, and then the material can be laid at the molder or swing cut-off saw, from whence it can be carricdup the stairsat either end of the room, according to what part of the second floor it gozs. The jointer is located on the first floor for squaring up porch posts, balusters, etc., which afterward go to the turning lathe.
An juspection of the second floor plan will show that all sash, door, blind and other stock which requires laying out on the bench at the head of the rear stairway is convenient to the tenoner, mortiser, sticker and relisher, while the door clamp is at the rear of the building. farthest from the office, and yet handy to the second floor dry-kiln, which can be used to warm the stock before driving up. The reader will find on the second floor a variety wood worker and boring machine, which can be used for all gaining, rebating, plowing, jointing and other work which requires to be worked over a cutterhead. The rip and cut-off saw, as well as the pulley borer, are convenient to the benches where the frames are put together. A triple-drum sander for sanding doors, etc., is conveniently located for the purpose.

As the amount of kiln-dried lumber used in a planing mill is small, I have not provided a very large dry-kiln, yet it is sufficient, I think, for the purpose. For this reason I have placed it inside the main building at the rear, where it is coovenient of access when only a board or iwo is needed.

The foreman's office is located directly over the main office for the sake of convenience, as it permits of ready communication with the foreman when he is wanted. The two duors in front and the four doors on the side caable material to be loaded without the necessity oi carrying it from one end of the shop to the other.

The boiler and engine house is separated from the main building for various reasons. In the first place, the engine is out of the dust and dirt of the shop, which will leng then its life, and, in the second place, all oils, grease and the like can be kept in tin cans in the engine room and in direct charge of the engineer. The boiler is separated from the engine room by a brick wall, and there is also room for water heater, feed pump, etc. The main drive belt runs from the engine to the countershaft just inside of the basement wall of the main buidding. The countershaft is put up on twor $2 \times 12$ inch posts, the bottoms of which, as well as the two posts directly in front of them, which
hold the main line shaft, are set in iron bases, which, in turn, are anchured tu their foundations by bolts. The engine for a shop of this size should not be less than 60-horse power, with a 75 -horse power boiler. The main belt from the engine should be boxed over in order to keep all weather from it, and the underground passage for the bottom of the belt should be made wide enough for a man to walk in along the side of belt.

I prefer hot air for heating, as it is more satisfactory, is perfectly safe, and the insurance is lighter where this method is employed. The

second floor.
heater can be located under the second foor, close to the dry-kiln, and can be suprlied from the pipe leading to the dry-kiln, thus having but one steam pipe running from the boiler, and keeping all the steam in the rear end of the shop. I have not provided a blower for shavings and sawdust, but this can be arranged to the owner'sliking after the building iscompleted. A system of this kind should be iustalled in every shop wherever possible, as it will not only pay fo-itself in a shor: time, in the saving of labor, but the shop is always kept free from piles of shavings and sawdust, which often hinder the men in their work.

## THE LATE MR. F. T. WILKES.

Suddenly on December 17 th death summoned Mr. Frederick T. Wilkes, secretary-treasurer of the Waterous Engine Works Company, of Brantford, Ont. He had not even complained of feeling unwell, but as he was walking home he was seized with a fainting spell and expired before medical assistance could reach him. Deceased was in his $5^{6 / h}$ year, and had apparently been in the best of health up to the time in his death. He was a well-known figure of local business circles, was particularly active, and a man of determination and courage. Born in Owen Sound in 1847, he was the son of Judge Wilkes. He went to Brantford some thirty-five years ago, entering the employ in the Waterous Company. Here he gained of a large measure the practical business ability which in after years contributed so greatly to his success as controller of enormous industrial interests.
Mr. Wilkes never took an active part in public life, but was a careful student of the questions of the day that affected the welfare of the country. Mrs. Wilkes and three sons survive him.

Sycamore is a durable wood, as is shown, for one example, by the excellent preservation of a stalue made of it, now in the muscum of Gizeh, at Cairo. It is stated that this specimen is known to be nearly 6,000 years old, and is sound and natural in appearance.

# THE ONTARIO GOVERNMENT TIMBER SALE 

A Romarkable Gathering of Lumbermon.-Keen Competition and Record Prices. - The Sum of $\$ 3,687,337.50$ Realized for $826 y^{\prime}$ Squaro Milos.-An Average of $\$ 4.461 .38$ Por Square Millo.

It was indeed a distingruished assembly of lumbermen which for the time being held the Legislative Chamber in the Parliament Buildings on December gth-a gathering unch as has not been seen at any previous sale of timber limits in Canada. The territory represented extended from Quebec in the east to Winnipeg in the west, while there was also a large attendance of giants of the forest from the United States. Mr. Peter Ryan appeared in his familiar role as anctioneer, and to his right sat Hon. E.J. Davis, Commissioner of Crown Lands, and his Deputy, Mr. Aubrey White. The names of all present could not be obtained, but the following is a partial list :

James McCreary, Arnprior; Guy H. Moulthrop, Maurice Quina, Charies Moore, J. Ritchie, S. O. Fisher, H. W. McCormick, E. T. Carrington, R. A. Loveland, E. P. Stone, Bay City, Mich.; C. E. Hewson, N. Dyment, M. Burton, F. E. Letts, Barrie; C. C. Wallace, O. M. Arnold, Bracebridge; S. F. Whitman, Brantford; H. L. Lovering, Coldwater, Ont.; W. L. Martin, Cheboygan, Mich. ; George Go:don, Cache Bay, Unt.; W. T. Toner.Collingwood; W.A. Hadley, C. Hadley, Chatham; A.B. Upion, Duluth, Minn.; W.W.Carter, Fesserton, Ont. ; J. J. McMillan, Finch, Ont.; A.W. Mowry, Gravenhurst; C. McCool, Geneva Lake, Ont.; Hiram C. Cilvin, Garden City, Ont.; E. Singer, Guelph;l. C. Dancey, Gocierich; A. E. Paget, C. E. Paget, John Whitesides, Hunt-ville; George McExen, Hensall, Ont.; Hugh Brennan, E. S. Brennan, William Laking, Hamilton; R.A. Mather, Keewatin; Hon. J. Chartion, Lynedoch; G. H. Belton, D. Ferguson, London; A. McPherson, G.H. Thompson, Longford; J. B. Klock, Maltawa; George McEwen, Moose River, Ont.; D.G. Madagan, Fred Carney, Jr., Marinctte, Wis.; W. F. Brooks, T. H. Shevlin, Mmneapolis; W. Mason, Montreal; M. J. Brophy, Massey, Ont.; Jos. Turner, D. L. White, Jr., James Playlair, George Chew, Frank Moores, Midland; R. Bunyam, R. Collins, W. Ryan, C. Maguire, North 13ay; T Charion, North Tonawanda; Rev. A. Fitzpatrick, Nairn Centre; J.B. Fraser, J. C. Browne, E. D. Mhore, George B. Campbell, A. McConuell, E. C. Whitney, George Brigham, R. Booth, Hiram Robinson, H. K. Egan, Ottawa, Ont.; 1. W. Maitand, Owen Sound, Ont ; G. H. Farwell, H. J. Bartlett, J. H. Lavallee, George McCormick, M.P.P., 5. Caswell, B. Inglis Crant, J. 13. Tudhope, M.P.P., T. Sheppar. Jrillia; S. Casiel, Otter Lake, Ont.; Milton Carr, M.P.P., Parry Sound, Ont.; R. R. Mall, J. C. Shook, J. B. McWilliams, Willian Irwin, Peterborcugh, Ont ; B. Shamon, J. A. Shamon, T. D. lafrance, Thomas Mackie, M.P., A. T. Mackie, W. R. White, R. W. Gordon, J. H. Burait, R. Hale, Pemiroke, Ont.; A. G. Scaman, Port Arthur, Out.; V. A. Firstbrook, C. Beck, Di. Spohn, Penetanguiviene, Ont.; T. A. Stewart,

Perth; John Munn, Paisley; P. Murphy, William Power, M.P., Quebec ; John Mackay, A. C. Mackay, M. J. O'Brien, George B. Ferguson, Duncan Graham, A. Barnet, M.P., John Ferguson,A.G. Boland, Renfrew ; William Margach, D. C. Cameron, Rat Portage ; J. Q. Adams, Ravensworth, Ont.; W.J. Ard, R. Cook, P. McDermott, South River; J. L. Kennedy, Frank Perry, J. J. McFadden, Sault Ste. Maric, Ont.; W. J. Ransom, Sault Ste. Marie, Mich.; A. McCall, Simcoe; J. M. Diver, Sarnia; A. G. Walls, Spanish River; D. J. O'Connor, O. E. Elsmore, F. Cochrane, A. B. Gordon, W. J. Bell, Sudbury; John Gray, W. A. Cockhurn, Sturgeon Falls; Hon.


Mr. Thomas Machie, M.P., Pembroke, Who Purchased Berth No. Su Hammed Township, at sm, 3 ,

Arthur Hill, R. H. Roys, Sayinaw, Mich.; E. C. Kennedy, Superior, Wis.; A. E. James, Thornhill; John Waldie, W. N. Tilley, F. N. Waldie, W. P. Bull, H. W. Bickell, William Smith, W. D. J.ummis, W. A. Charlton W. E. Bigwood, W. B. MacLean, George Gray, Walter Laidlaw, John Bartram, C. Sheriff, J. B. Miller, John Donogh, J. H. Eyer, J. M. Thompson, John McDonald, W. J. MacBeth, Jos. Oliver, William Kerr, H. W. Welch, F. T. Verrall, P. Edwards, Thomas Southworth, E. J. Loughrin, Toronto ; A. E. Dyment, M. P., Thessalon; M. P. Kinsella, Trenton; J. R. Brennan, Utica, N.Y., J. D. McArthur, D. E. Sprague, J. M. Savage, Winnipeg; George Cormaik, Whitby; A. E. Drake, Windsor; E. Maundrell, A. Leischman, Woodstock; G. Kastner, Wiarton; G. M. Tanner, W. H. Tanner, IV. J. Sheppard, Waubaushene; D. A. AicEwan, Warina, Ont.

The conditions governing the purchase of the li nits were different in some respects from those of any previous sale. The timber was subject to dues of $\$ 2$ per theusand feet, as com-
pared with $\$ 1.25$ fixed at the last sale in 1901 . and $\$_{1}$ previous to that time. The annual ground rent was increased from $\$ 3$ to $\$ 5$ per mile, and the time allowed for the removal ot the timber was limited to fifteen years. Considering these facts, the prices realized were remarkable. Shortly after one o'clock, the auctioneer ascended the platform in froat of the speakers' dais and pointedly remarked: "Monarchs of the lumbertrade, I an pleised to see you here to-dity; your presence betokens the confidence you have in the rising values a 1 these conilerous properties. There is no dusi ness in Canada or elsewhere that presents su.I encouraging opportunities as the lumber trade, no business where so few failures have to be recorded. It is unnecessary for me to tell you that from time to time jehear that the value of pine seems to have reached its limit, but it still keeps on increasing. It was said (wenty years ago that the price was too high, but we know that it is higher now."

It was evident from the outset that many were present through a desire to obtain limits. The bidding was quick and the competition keen. Every berth offered was disposed of, and in less than four hours the auctioneer had knocked down to lumbermen $8261 / 2$ square miles of timber lands in the Nipissing, Algoma and Rainy River districts, obtaining therefore $\$_{3}, 687,337 \cdot 50$, or an average of $\$ 4,46 \mathrm{r} .38$ per square mile. Although a smaller area was sold, the receipts were far in excess of any previous sale. Below are given the names of the purchasers:


When Wm. Power, M. P., bid $\$ 2 \mathrm{I}, 500$ for Berth $x$, in the Township of Garrow, he was roundly cheered, this being a new high record, but Thomas Mackic, M. P., was not 10 be cutdone, and later secuerd Berth 5 in Hammell Township, $3^{3 / 4}$ square miles, at the rate of $\$_{31,500}$ per mile. "I congratulate the giant from North Renlrew," said Mr. Ryan. The highest price obtained at any' previous sale was $\$ \mathrm{~F} 7 \mathrm{j} 500$. This was paid by the Gil-
mour Company in 1892 for Burth 6 in the Township of Peck, comprising $113 / 4$ square miles. The result of previous timber sales in Ontario was as follows :

| Date | Square nites. | Highest price per mile | Average price price per mile per mis |
| :---: | :---: | :---: | :---: |
| 1868. | $3^{88}$ |  | $\leqslant 3$ |
|  | 12 | 8 |  |
| 187, ......... | ${ }_{4} 87$ | 500 | 24160 24, |
| $1882 . . .$. | 5,031 | 8,000 | 117.79 |
| 1887 .... | 375 | 500 | 201.97 |
|  | ,379 |  |  |
| 1887 | 459 | 6,300 | 2,859.00 |
|  | 343 633 | 11,530 | 2,507.00 |
|  | 153, | 17,500 6,600 | 3,657.18 |
| 1899 | 360 | 8,200 |  |
| 1901 | 3991/4 | 4.70 | 1,835 |

Speaking of his purchase at the top-notch figure, Mr. Mackie said that he feared no loss. It is understood that there is on the berth a very large quantity of timber which will make splendid stock for the British market, on which no doubt Mr. Mackie is relying. While admilting that it was a profitable sale for the Government, he expects there will be some profit left for him.
The Commissioner of Crown Lands stated that he was more than satisfied with the result of the sale, the receipts being greater than were expected. "The heavy demand for good timber such as is found in Ontario and the $t$ uilding of the Temiskaming Railway were the two principal reasons, to his mind, why such good prices"were realized. "This sale was well conducted, the lumbermen had plenty of time to examine the limits and know what they were bidding on," added Mr. Davis, "and I am sure everyone should be satisfied."

It will be observed that practically all the eastern limits went to Canadians. The Americans were apparently not prepared to pay the price, and hence had to be content without the timher. Mr. T. H. Shevlin was a large purchaser of Rainy River berths. He was acting for the Shevlin-Clarke Company, who are building a saw mill at Fort Francis, Ont.
The witticisms of the auctioneer were no doubt responsible for many a bid. By a constant flow of mirthful yet eloquent oratory the bidders were kept in the best of spirts and the importance of the occasion was almost forgoten. As a timber limit auctioneer Peler Ryan stands alone.

## AXE HANDLES.

Mr. J. S. Larke, Canadian Commissioner at Sydney, Australia, writes that a trial order for axe handles has been forwarded to a Camadian factory, and if the importing charges are not too high, regular business'will result.

## A PROFITABLE INVESTMENT.

If you want a grate to burn wet, green or frozen sawdust or other refuse, at all times, summer and winter, rain or shine, without slopping for repairs, or to wait for steam to rise, buy the Gordon Hollow Blast Grate, which is sold on approval after thin iy days trial, and of which there are over 2500 sets in daily use. It is manutactured only by the Gordon Hollow Blast Grale Company, Greenville, Michigan.

The Gray \& Lawrence Bros. Co. have recently sold but their lember business at River Charlo, N. B., to Wm. Curric \& Co.

A WELL.KNOWN LUMBER SALESMAN.
"To the manner born" may aptly be applied to the lumber salesman whose countenance is shown on this page. Securing in early days a practical knowledge of the lumber business, and being possessed of a geniality which is constantly widening his circle of friends, W. J. MacBeth stands in the front rank as ailumber traveller. He is a Scottish-Canadian, his grandparents having come from Sutherlandshire, Scotland, to Canatia by way of Hudson's Bay in 2812 , and settled in the township of West Gwillimbury, County of Simcoe, Ontario. His father was the late John MacBeth, lumberman, of Gilford, Simcoe Counry, who was well known and will be remembered by many of the older lumbermen in and around Toronto.
The subject of our sketch from boyhood a.lsisted his father in the woods, driving oxen, tramping trails, hewing timber, and later in the more responsible positions. He has followed the lumber from the stump to the building, and has thus acquired a knowledge of


Mir. W. J. MacBetr.
which he is justly proud. Upon the death of his father in 1881, he took charge of the manufacturing department, the business at that time comprising two mills, one at Gilford and the other at Craighurst, in Simcoe County, and a retail lumber, coal and wood yard, which was the first yard in Parkdale. The pine timber supply finally becoming exhausted, Mr. MacBeth, in 1888, came to Toronto and tnok charge of the planing mill which had been added to the business.
In 18ya the building trade in Toronto collapsed. It was then that W. J. MacBeth became a lumber inspector and salesman, finding engagement with such representative firms as the Dickson Company of Peterhorough, The Boake Manufacturing Company, A. R. Williams Machinery Company, of Toronto, and the J. D. Shier Lumber Company, of Bracebriage, his present employers, with whom he engaged four years ago. The foregoing firms doing an extensive business in rough and dressed lumber and sash and doors, it has given Mr. MacBeth an opportunity of acquiring a thorough knowledge of the trade,
which is one of the reasons why he stands in the front ranks. He has a fund reminiscences, amongst which the following are wortily of mention :

Although only a little more than a decade ago, the prices then reulized for lumber present a striking contrast to those ruling today. "I reniember," said Mr. MacBeth to the writer, "buying a stock of first and second onk at $\$_{12}$, and some henlock at $\$ 5.50$ f.o.b. cars at Hillsdale. To-day this oak is worth $\$ 45$ and the hemlock \$12. In 188!l bought No. 1 white pine sat $\log$ s delivered at the mill in Craighurst for $\$ 3.5^{\circ}$ per M. feet. At the timber sale on the gth ultimo white pine broughfrom $\$ 8$ to $\$ 10$ per M. stumpage, and this pine is not nearly as good as that 1 bought for \$3.50. I sold clear and picks at $\$ 24$, common stocks at $\$ 8.50$ and mill culls at $\$_{3.50}$, and these were considered top notch prices." Thus it can be seen that time is a worker of wonders.
The output of the Shier Lumber Company's mill is about $14,000,000$ feet annually, conssisting of pine, hemlock and hardwood lumber. The selling of this stock is entirely in the hands of Mr. MacBeth, who has a wide connection in both home and toreign markets, having sold a large block of this year's output to a British exporter. In this connection it may be stated that Mr. J. D. Shier was the pioneer in the end-matched hardiveod flooring business, Mr. MacBeth having induced him to put in the first end matcher in Canada for the production of this class of stock, which has now a large sale. Mr. Shier also had the courage to install the first single-cutting as well as the first double-cutting band mill in Ontario.
In Mr. MacBeth we have also an authority on inspection, and his advice is frequently solicited. He is a member of Kerr Lodge No. 230, A. F. \& A. M., and, as will be seen, is a Hoo-Hoo, having been initiated as a charter member of the Toronto Association on July 7th, 1903. He makes his headquarters in Toronto, his family residence being at $1=0$ Macdonell Avenue.

## A VAST MACHINERY CONTRACT EILLED.

The Dodge Manufacturing Company of Toronto, I.imited, has cumpleted its large undertaking to furnivh the machinery and special castinys for the new million bushel elevator of the Harbor Commissioners at Montreal, and in carrying out its part of the work has delivered about 2.50 tons of cicuator machinery and special castings. The buge steel marine leg that has been successfully placed in this clesator is said to be the largest in Canada, and its successlul completion, together wath the rest of the work, has won the cordial approval of the contrictors, the Government inspectors and engineers. This job shows the extent of the facilities of the Dodge Compant since its many additions, and its plami today, concisting of a modern foundry with a fifteen ton per hour cupola capacily, ravelling craucs, up-to-date machire shops and tool rooms, pattern shops, fireproof pattern stores, general offices and expert enginecring department, is well wortlay of a visit.

## A GOOD SALESMAN.

Messrs. Thomas Myles' Sons, Hamilton, Om., wrile: "Ilease discontinue our adoertisement in your paper (The Casadian Lumberman.) We wish to state that we had a great number of replies. Kindly aceept our thanks."

# THE <br> Ganada Lumberman 

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sender is even more complete.
ender it even more complete.
nent. For manufacturige and supply frms wishing to bring ment. Fors manuracturito of owners and operators of saw and planing mills wood. Torking factorics, pulp malls, ctc. the Canada lomperasay is undoubtedly the cheapest and most proct to "WaNtuD" and "For SALE" adrentisements, which are laserted in a conspicuous position on front page of th Weekly Ladition.

## LUMBER PROSPERITY.

The year 1903 will always bring pleasant recollections to lumberman. It was a year marked by unusual prosperity, and interruptions to the steady movement of trade were comparatively few. The lumber manufacturer did not worry about selling his lumber, nor the machinery manufacturer or dealer about disposing of his goods. There was a demand for everything, consequently good feeling prevailed. A very large number of persons were given employment by the lumber industry, and at wages higher than were ever known before. This has in turn been a source of benefit to the country at large. The exceedingly high scale of wages, however, has greatly curtailed the profits accruing from lumber manufacture.

Indications point to a continuation of prosperity during 1904, but perhaps in a lesser degree. The Presidential election in the United States is sure to be a disturbing factor in that country, which may buy less Canadian lumber than in the past ycar. We must not forget, however, that our own industries are developing very rapidly, consuming greater quantities of lumber, and we are gradually becoming less dependent upon foreign markets.

The Canada Lumberman enjoyed its \{ull share of prosperity during the year. The number of subscriters has increased nearly fifty per cent., while the advertising pages bear testimony to the liberal support that has been extended in that direction. This number marks the commencement of the iwenty-fith year of publication. Our aim in the future, as in the past, will be to make the journal fittingly accord with the great industry which it represents.

To cur readers we extend a hearty New Year's Greeting. May 1904 bring prosperity in plenty, but of ill-luck not any.

THE ONTARIO TIMBER SALE.
In more than. one respect the Ontario Government may be congratulated upon the success of the recent sale oi timber limits. First, the excellent prices which were obtained, being an average of \$792.00 per square mile higher than had ever been obtained before, is evidence that the sale was heid at an opportune time and that it was conducted in a manner calculated to encourage the keenest possible competition. A factor to that end was, no doubt, the division of the limits in most instances into small blocks. Secondly, if such were needed, the sale would seem to justify the building of the Temiskaming and Northern Ontario Railway and the general policy of rallway construction through unsettled lands. Many of the limits sold are located adjacent to the Temiskaming road, and it is estimated that its construction increased their value to the province fully one million dollars. it is perhaps only fair to state that the increase in the stumpage dues trom $\$ 1.25$ to $\$ 2.00$ per thousand feet was also a wise step from the Government's point of view, whatever may be said to the contrary by the lumbermen.

It is not only the Government that has been benefitted by the sale. The value of all standing timber has been increased and all owners thereof enriched. Future calculations will be based on a bonus value of seven dollars per acre instead of about five dollars, as :u the past. Nor must we lose sight of the fact that while the average price paid was seven dollars per acre, one limit commanded almost fifty dollars per acre. There could be no stronger proof of the great and ever increasing value of white pine. This splendid timber is, of course, becoming scarcer, but the Province of Ontario still possesses no inconsiderable quantity, and the recent sale is an incentive to preserve it as an asset. Not only is it an incentive to the Government, but to all owners of timber.
The time limit allowed for cutting the timber purchased has been the subject of some criticism, on the ground that it is practically giving a bonus for removing the timber within the specified time of fifteen years. This brings up the question of the advisability of granting long term or perpetual leases, on which there are widely differing opinions, and whether the limber is likely to be better preserved under private ownership or in the hands of the Crown. In justification of the application of the fifteenyear regulation to the sale in question, it is pointed out that the total quantity disposed of represents probably not more than two years' cut.

## EDITORIAL NOTES.

The timber industry will benefit materially by the construction of the Grand Trunk Pacific Railway. The tic contract alone, which will probably be given to one general contractor, will be a large undertaking, not to speak of the vast amount of timber that will be required for the construction of bridges, stations, fences,
etc. The number of thes required for the entire distance of four thousand miles will probably not be less than ten million, which on the basis of the present price of thirty cents per tie, vould mean an expenditure of three million dollars. As along a considerable portion of the proposed route timber is quite plentiful, the supply of ties is likely to be obtained at a comparatively low cost.

Another advance has been made towards uniform grading of hardwood lumber by the agreement last month upon certain rules to be recognized by the members of the National Hardwood Lumber Association and the Hardwood Manufacturers' Association of the United States. These rules will in future be the sole official inspection of the hardwood lumber trade of that country. The text of the agreement will be found elsewhere is this iscue.

The Dominion Goverment, through the Department of Indian affairs, is about to dispose of a mill site in the Rainy River district hy public auction, the purchaser of which must agree to erect on the property within one year a saw mill and factory to cost not less than $\$ 25,000$. Is it not in the interest of all concerned that as large a number as possible of the lumbermen should have been informed of the proposed sale? We think so. Yet when the Canada Lumberman, the only lumber journal in this country, solicited the advertisement we receivedthe familiar reply that "your request cannot be complied with, as it has been decided to limit the advertisement to the papers already authorized." Apparently the advertisements of the Dominion Government are placed without regard to the value of the publications, and to this extent the property of the Crown and the people is being handled in an unbusinesslike manner.

A splendid suggestion is made by a correspondent in this issue, namely, that lumber manufacturers should devote more attention to educating their employees, and particularly those holding responsible positions, such as filers and sawyers. Everyone in the business knows of the vast amount of lumber that is reduced in value by being improperly sawnboards which would otherwise be classed as uppers are relegated to the cull pile. The business of saw filing is a science, and to-day where there is one thoroughly competent filer to be found there are a dozen who are not capable of fitting a saw so that it will cut smooth, even lumber under any but the most favorable conditions. They do not strive as they should to master their calling, and in many cases the reason no doubt is that the incentive is lacking. If it should be found practical to establish a system of qualitying examinations, and grant a diploma to all filers and sawyers giving the necessary proof of their competency, it would no doubt encourage them to educate andimprove themselves. This is, we think, a matter on which the lumber manufacturers might with profit take some action.


HOOHOO CONCATENATION AT TORONTO
With all the solemn and fantastic rites of the Concatenated Order of Hoo-Hoo, forty new members to the Toronto branch of this mysterious order were initiated on December oth, and enabled to partake of its benefits The gathering of gentlemen in Toronto to take advantage of the timber sale was curiously coincident with one of the requirements of the urder, namely, that meetings be held on the ninth day of the month. The gentlemen who selected the date of the sale probably did not deugnate that day for that reason, but HooHow, who watches over the fortunes of the llayful Kittens, saw to it that the selection was made for the interest and entertainment of all concerned.

Walter C. Laidlaw, new Snark for Eastern Canada, held his first initiation, and twentyfive Hoo-Hoo and forty purblind kittens played through the Gardens east and west and through the beautiful Onion Bed, and partook of the "On the Roof" together.

Hoo-Hoo, who had been confined in trunk No. 5 for a long time, was very playful. The Onion Bed was particularly fragrant, and tears, not of sorrow but of joy, wet the cheek of the on-looking kittens. Gentlemen who were strangers to each other, groping in the darkuess of the Onion Bed, met one another and immediately knew that they had met a friend reaching out something to them, though they could not clearly see what it was.

The "On the Rooi" looked like this :


though it would take pages to describe the speeches made, the songs sung, the friendly wit exchanged, and the stories told.

The officers were : W. C. Laidlaw, Snark; J. R. Hooper, Senior Hoo-Hoo; Harlan P. Hubbard, Junior Hoo-Hoo; A. K. McIntosh, Bojum; A. "Lathyarn" Eckert, Scrivenoter; W. J. Hetherington, Jabberwock; W. J. MacBeth, Custocation; G. M. Nickels, Arcanoper; Richard Locké, Gurdon. Daniel Ferguson, of London, assisted the Junior Hoo-Hoo. J. M.

Diver, of Sarnia, also assisted. In fact, all the Toronto Hoo-Hoo lent a willing hand in guiding the purblind kittens. Jas. G. Cane occupied with much dignity the post of Official Barber. Many of the features brought out at the Concatenations in Buffalo were used and everybody pronounced it a most successful affail, and, in the opinion of those who had at-

## THE HOUSE OF HOO.HOO

The contract for the construction of the Hense of Huo-Hoo, or lumbermen's club building, at the St. Louis World Fair, was signed on Wednesday, November 25. this contract calling for the completion on or before February 1 of the building itself, exclusive of the interior finishing. The type of architecture,

tended other Concatenations, it compared favorably with any.

The Candidates: George "Highball" Belton, London; George "Hemlock" Thompson, Longford Mills; C. "Chatham" Hadley, Chatham; H. J. Bartlett, Orillia; S. "Daddy" Caswell, Orillia; Geo. "Clear" Cormack, Whitby; J. H. Lavallee, Orillia; Wm. H. Tanner, Sturgeon Bay; Alex. "Virgin" Leishmann, Orillia; Wm. "Trade \& Commerce" Leak, Toronto; M. P. Kinsella, Peterboro; W. A. Hadley, Chatham; G. M. Tanner, Waubanshene; A. "Drofessor" Dinnis, Toronto; W. W. Carter, Fesserton; W. L. Rice, Welland; A. G. Seaman, Port Arthur; A. E. Paget, Huntsville; Frank "HotAir" Maundrell, Woodstock; Frank Moores, Midland; J. R. McDonald, Toronto: R. B. Elgie, Toronto; E. A. Drake, Walkerville; J. W. Thompson, Toronto; J. W. Elliott, 'Toronto; Jno. "Irish" Barry, Toronto; J. Q. Adams, Ravensworth; W. J. Ard, South River; A. G. Breed, Toronto; J. H. Smith, Toronto; G. "Sawlog" Kastner, Wiarton; A. E. Clark, Hamilton; H. T. Whaley, Toronto; O. M. Arnold, Bracebridge; A. Mowry, Bracebridge; S. "Spavin" McBride, Toronto; C. E. Paget, Huntsville; G. "Posthole" Farwell, Orillia; A. H. Colwell, Toronto; S. F. Whitham, Brantford.

Those present in addition to the before mentioned were Mescrs. W. D. Lummis, Joseph Oliver, A. R. Riches, Hugh Munro, S. R. Higgins, N. V. Kuhlman, P. J. Edwards, W. P. Bull, Toronto; D. L. White, Midland; C. C. Wallace, Bracebridge; G. S. Lay, Butfalo; E. Singer, Guelph.
N. W. Trimble, of Elmstead, Ont., has purchased timber land in New Ontario and purposes moving there next spring to engage in the mill business.
The Gilmour Door Company, Limited. Trenton, Ont., has been incurporated, with a capital of $\$ 100,000$, to carry on the business of a manufacturer and dea'er in lumber, pulp, paper, docrs, windows, etc.
as will be seen by the illustration on page 18, is in the bungalow style, such as would make an ideal country club building, and the construction will be entirely of wood in order to show the various possibilities of the forest products of the United States. In size it will be $132 \times 97$ feet, with spacious verandahs extesding around the entire structure, a special feature of this verandah being that access will be possible into every room on the main floor by means of large French windows.

The building will contain an office, check room, telephone booths, large rotunda with a magnificent stairway leading to the second floor, and an auditorium with a seating capacity of 400 . This auditorium will be teautifully finished in mission style and be used for holding lumber couventiuns, Hoo-Hoo concatenations and as a banquet hall. There have been provided six luxurious lounging and writing rooms, equipped with every convenience. A commodious reception room with large fire-place, a retiring room, etc., will be especially fitted up for the ladies.

The general style of the building is materially changed from that originally planned and it is generally believed that the change is for the better. In the first place, the construction being entirely of wood, will be much inore satisfactory for a lumberman's building. It also contains its main features on the ground floor. which is a decided advantage over the builaing originally planned. It will be home-like in every detail and will undoubtedly be one of the most attractive features of the great fair.

And one of the fundamental ideas of the whole proposition has net been forgotten. The House of Hoo-Hoo will be a school in which much can be learned of modern methods of wood construction and finishirig. The latest idea will be brought out and the world will learn much that it did not know,
"WOOD MANUFACTURED" UNCLASSIFIED.
United States Customs Appraiser Fischer has recently delivered an opinion which is especially interesting as showing that there is no provision in the present tariff law for "wood manufactured," though there is such a provis. ion for "manafactures of wood." This is what a foreigner would perhaps call a "curiosity of the English language."
The "manufactured wood," which was imported hy J. G. Sturman, of New York, consists of alderwood boards about $1 / 6$-inch thick, and varying in length from 26 to 39 inches, and in width from 4 to so inches. On one side there is an imprint made to imitate the grain of cedar wood, in order to render the same suitable for making cigar boxes. Duty was assessed thereon by the collector, at the rate ot 35 per cent. ad valorem, under the provisions of paragraph 208 of the act of July 24 , 1897, while the importer claims that the lumber is properly detiable either at $\$ 1, \$ 2$, or $\$ 3$ per 1000 feet, board neasure, under paragraph 195, as boards or sawed lumber; or 15 or 20 per cent. ad valorem, under paragraph rg8, as sawed beards, not further manufactured than sawed, or a wood unmanufactured, or under paragraph 203 at 30c. per 1,000 shooks, or under section 6 , as an unenumerated manufactured article, at 20 per cent. ad valorem.

The board of appraisers holds that the fact that these boards or strips have been printed to represent cedar does not make them manufactures of wood. By reason of that operation, the merchandise was not given a new name, character or use, but still remained wood. The assessment of duty as a manufacture of wood was erroneous.

This being settled, the question to be determined was how should those alder-wood boards be assessed. It appears from the testi-, mony that these boards were cut from the log by a veneering machine. Having been produced in this manner, the merchandise is, therefore, not sawed boards, or boards not further advanced than sawed. It is clearly nut veeners, for it does not answer to the commercial or common understanding of that article, nor are they shingles or shooks. There is no provision in the tariff for "wood manufactured." The provisions of paragraph 208 cover only "manufactures of wood," and do not in-s
clude "wood manulactured." The first cover articles made of wood and the latter would include wood cut into forms which still retain their name, character and use as wood. It seems, therefore, that there is here a class of wood not specially provided for, and the claim in the protest that it is dutiable under section 6 is well founded; but the board holds that, as the merchandise is similar, and, in fact, identical, in material, texture and use', to boards sawed and finislied on both sides, it is dutiable under the provisions of paragraph 195, by virtue of section 7, known as the similitude clause. The pertinent provision of paragraph 195 is as follows :
"'195. Sawed lumber notspecially provided for in this act, $\$ 2$ per 1000 feet, board measure; but when lumber of any sort is planed or ${ }_{2}^{2}$ finished, in addition to the rates herein provided, there shall be levied and paid for each side so planed or finished 50c. per 1,000 feet, board measure."
The summing up of the decision is as follows : Alder-wood boards $1 / 8$ inch thick, and varying from 26 to 39 inches in length, and from 4 to 10 inches in width, having an imprint thereon to imitate th 3 grain of cedar, are not dutiable as manufactures of wood under paragraph 208, act of July 24, 1897, but are dutiable by similitude under paragraph 195. Such wood, being planed or finished on both sides, is dutiable at the rate of $\$ 3$ per 1000 feet, board measure, under said paragraph 195.

To constitute a manufacture of wood, it is necessary that the wood should have lost its name, character and use as wood, and become a new article, with a new name, character and use.

To become successful a business must be constantly making new acquaintances and when the business is right these scquaintances become friends. There are many and various ways, by which this can be done says the St. Louis Builder, but the best way for a business to make new acquaintances is to adventise. Introduce your business to those who are most liable to be interested in you, let them learn from the face of your advertisement what your good points are, and keep them constantly reminded of them. Don't be afraid that you will be deemed too bold or too forward-these traits are virtues in business, and will make acquaintances for you if you can live up to the good points you claim.

PIPING SAWDUST PROM BAND SAW.
Your correspondent, the Indiana Box Company, wishes to know how to successtully pipe a band saw; in other words, to know how to get rid of the sawdust. I think the sketch will give the desired information.

In order to convey 95 per cent. of the dust, you should make a sheet iron hopper, with a door in front, to fit to the bottom of saw table, giving no more space in hopper than is neces. sary to gei the guides under the table (that

piping Sawdust from band Saw.
takes the "flutter" out of the saw). Make the side of hopper next to band wheel on an angle of 30 degrees; let it angle to, say, 5 -inch pipe and have your saw run through a 1 -inch slot cut through hopper. If your piping is good and tight, and you have a good suction, you can bet on the results.

Referring to sketch, you can pipe from the hopper in either direction, but I think the one shown by the dotted lines the best, as you can go around the trame of the machine, keeping pipe out of the way. We have several machines piped in this manner, giving firstclass results.-Correspondent of The WoodWorker.

A SAW MILL RECORD.
A Midland, Ont., correspondent writes: "In the J. Playfair sawmill, in Midland, on November I9, was made the fastest thousand lath cut, when one thousand lath were cut in three minutes, twelve seconds, under the management of A. Laidlaw, jun. He also broke the world's record in 1901, cutting 84 thousand lath in $101 / 2$ hours, at another mili here."

## PRRSONAL.

Mr. D. J. McLaughlin, a retired lumber merchant, has been elected president of the St. John, N. B., Board of Trade.
Mr. John Shearer, jr., of Ottawa, has bean appointed by the Dominion Government to gather material for a Canadian forestry exhibit at the St. Louis Exposition.
Mr. K. F. Robinson, lor many years manager of the liastman Lumber Company at Eastman, Que., has accepted the management of the Cookshire Mills ${ }^{\text {C }}$ Company, of Cookshirc.
Mr. A. E. Munn, late manager of the British Canadian Timber Company at Kearney, On.., has been appoin'ed manager of the Canada Wood Specialty Company, of Orillia, a position in which his experience should be found of great value.

After an illness extending over a period of fifteen months Mr. William Harvey, of A Arnprior, passed to his re. ward last month. Deceased was probably the best known man in the vicinity of Arnprior, having for the past thrty-eight years been superintendent of the lumbermg operations of McLachlin Bros. He was engaged by the late Daniet McLachlin in 186.5 and remained continuously in charge up to the time of his failing bealth.
The Canada Lumberman was pleaned to receive a visit during the past month from Mr. E. H Heaps, head of the well known firm of E. H. Heaps \& Company, Vancouver, B. C. His company manufacture lumber, shingles, door, etc., and their product is well known in Eastern Canada. Mr. Heaps states that the shingle business of the Pacific Coast is getting on a more solid footing and he expects that during the coming year harmony will prevail among the manufacturers. Mr. Heaps has just established an office in Toronto in charge of Mr. Cameron.
R. F. Dorfman, who represents the syndicate which has been buÿing large areas ot timber lands, in the Nanaimo district of Bruish Columbia, states that the probabilities favor the building of a large mill in the immediate vicinity of Nanaimo. It is reported that additional capital is being obtained to work the limits.

## HILL ROTARY STEAM FEED VALVES.

Ever since the first shot gun feed. was built, the most fruiful source of trouble has been with the valves. The feed itself is a cimparatively simple proposition, but the valve has been the rock on whichmost of the designers have split. Every cenceivable form of valve hats been tried, the centre and the end, the vertical and the horizontal, but each one had some grave fault that more. than balanced its good ones. One would stick, the next would jerk, and all had something that a sawyer wouldn't stand for. The nearest approach to a satisfictory valve has been the rotary, but even these had some undesirable features, and Vm . E. Hill \& Company claim that it was not until the valve here it-

lustrated was put on the market that a perfect work ing valve was found. This valve is the result of experimented tests with every kind of valve. The result is claimed by the makers to be a perfeet working valve. Its points et superiority over all other valves are : It is perfectly balanced. It has uniform steam pressure on all parts, avoiding all tendency to bind. The ends are balanced, thus doing away with the end pre-sure met, with in other types of rotary valves. It has large wearing surfaces. It only requires a very
small movement of the value stem lever to open or close, and his together with its rolling motion makes it the ensient working value yet produced. It is made to fit any size steam, port and exhaust pipes, all connections being made by flanges. It in especially adapted where high steam pressures are used. It gives to the sawger's lever a stedy uniform motion, doing away with all jerking motions so common in other types of valves.
The valve stem lever has a pointer which indieates the valves' central position, also it, colseme steam and exhaust openings. With each pair of valves in furnished a lever equali,ing device, so that the valser will be given jul full travel and no more when sawyer's laver is thrown to either extreme.
Anyoue who is having trouble with their feed wahes will do well to write to the manuficturers, William E. Hill \& Company, +15 N. Rose Street, Kitamazoo, Michigan, for circular B, blue prims and prices.

## PUBLICATIONS.


 san fitting machanes and wouls, of .which llacy mamiofacture a very complete line.
Among the holiday reminders which have reached our desk are altractice calenders from the following fums : C. A. Larkin, wholesate lumber, Confederation Life Bldg., Torumto, keeman Bros., lumber manufauturers and detalers, Owen Suund, Onl., Alex. Dunbar \& Sons, manufacturers wood-working and satw mill machinery, Woodstock, N. 13.; Long-Kuight Lumber Company, (Incorporated), hardwoods and cypress, Indianapolis, Ind.

## The Lumberman's Diet <br> Clark's Corned Beef and Clank's Pork and Beans are the test producedin Canadn nid equal to <br> Beana are the best producedin caliadn and equal to the Snest imported. Gelquotations from jour jouber. <br> W. CLARK. Manufacturer, MONTREAL

## P. PAYETTE \& CO.

Manutachurers of San Mill and Engrue Mawhner, awd all kinds of Marine Machinery.
henetanahenuir, ont
FIRE INSURANGE

We accept lines ranging from $\$ 10,000$ to $\$ 40,000$ on lumber piled roo ft. or more from mill. Describe conditions and rates will be quoted promptly.

UNIFORM HARDWOOD INSPECTION RULES.
The two committers of the National Hardwood Lumber Association and the Hardwood Manı facturer's Association of the United States who were recuntly in session in Chicago, reached a basis of agreement as to uniform inspection on December isth. The revised rules arfecting certain kinds of lumber in which Canadians are interested given below :
RULES FOR INSI'ECTION OF MAPLE, BASS.
WOOD, BEECH, BIRCH, BLACK ASH,

## SOFT ELM, ROCK ELAM, STRIPS.

## gibneral instrecthon.

As the inspection of lumber is so largely a matter of judgnem, inspectors inspecting under these rules are instructed to use their best judgment based upon these rules, taking into consideration the general run of the stock as to lengthe, widths and manufacture.

Lumber must be inspected and measured as the inspector finds it, of full length and width. He shall make no allowance for the purpose of raising the grade. The inspection must be made from the worst side of the piece except when the reverse side grades two or more grades higher in which case the piece must be graded up one grade lrom the poor side.
Lumber shall be well manufactured, of good average lengths and widths. It should be sawed plump and even thickness and have parallel edges and square ends. Tapering lumber in standard lengths is measured at the narrow end, except as otherwise specified.

All fractions of three-fourth of a foot or over must be counted up to the next higher figure; all fractions of less than tiree-fourths of a loot must be counted back 10 tise next lower figure.
All badly missawed lumber must be thrown out by the inspector.
All lumber must be tallied face or surface measure.
five per cent. of lumber that is $1-16$ inch scant of the given thickness to be accepted in any shipment.
The standard grades are firsts, seconds, No. 1 common, No. 2 common, No. 3 common except as other wise specified.
When firsts and seconds are combined as cue grade there must be at least one-thard of firsts, except as otherwise specified.
Standari lengitis.-6, 8, 10, 12,14 and 16 feet, excepl as otherwise specified. As most timber is handled in lengths of $10,12,14$ and 16 feet, odd lengiths such as 9 , 11 and 13 tect, must be measured back to the next even length, except as otherwise specified. In the grade of firsts and seconds the lengths are 8 to 16 feet, but there must be over 10 per cent. of 10 foot lengths and 5 per cent. of 8 foot lengths, except as otherwise specified.
Standird Tuicknesses.- $1 / 3,1 / 2$, 56, 3/4, 1, 11/4, $1 \%, 2,2 \%, 3$ and 4 inch.
Standari: Defects.-Each one of the following itens constitute a standard defect : (a) One knot one and one-quarter inches in diameter. (b) Two sound knols not exceeding in extent or damage one and oncquarter inch knot. (c) One inch of bright sap, except as otherwise specified. (d) One split not diverging more than one inch to the foot, and not excecding in length in inches the surface measure of the full in feet, except as otherwise specified. (c) Worm, grub, knot and rafting pin holes, not exceeding in extent or damage one and one-guarter inch knot, except as wherwise specified.

Note: $-\lambda$ straight split not exceeding six inches in length in one end of a piece of lumber cight inches and over wide must not de considered a delect.

Niute 2 :-Black spots in maple, rock and soft clm not larger than a standard knot shall be considered no delect.

Expl.inations of Standiad Defects. - The following tems are to be given consideration : (a) The term "Sound Cutting," as used in these rules, means a jiece of lumber free from rot and heatl shake. (b) Ordinary season checks are not to be considered defects, hut if of so serious a character as to damage the luniber they are to be concidered by the inspector. (c) Black stain, heart shake, rot and dote are scrious detects, reducing to a grade lower than firsts and
seconds. (d) Wane is diflicuit to descaibe and in ${ }^{-}$ quectors must take same into consideration. (e) In the following rules all widthe and lengths mentioned face incluyive.

## special inspection.

Log Run. - Log Run means the full run of the iog with No. 3 common eut. Common and Brtter.Common and better means the full run of the log with No. 2 and No. 3 common out. Cominon and better nust contain at least 50 per cent. of first and suconds.

Merchantable.-Merchantable means the full run of the $\log$ with No. 3 common out, and that the Mo. : common ard firsts and seconds must be measured foll and the No. 2 common one-half.

Insiection for lumber sawed for specific purposes, such as axles, bolsters, longues, reaches, etc., must be inspected with a view to the adaptability of the piece for its intended use, because in most cases it cannot be used for other purposes.

## MAPLE.

Grades-Firsts, seconds, No. 1 common, No. 2 common and No. 3 common. Standard thickness-1, $1 / 4$, $11 / 2,2,21 / 2,3$ and 4 inch when dry. Bright sap is no defect in any grade.

Firsts.-Widits-6 inch and over. Lengths-10,12, 14 and 16 feet. 6 and 7 inch $m$ ist be clear. 8,9 and 10 inch will admil one clandard defect. II inch and over $\mathfrak{z i l l}$ admit two standard defects or their equivalent.
SECONnS. - Widths-6 inch and over. Lengths-8,10, 12, 14 and 16 tect. Dieces 8 teet long, 6 and 7 inch wide, must be clear. lieces $\delta$ teet long, 8 inch and over wide, will admst one standard defect or its equivalent. bieces 10 leet or over long, 6 and 7 inch wide, will admit one standard defect. Pieces to feet or over long: 8 and 9 inch wide, will admit two standard defects on their equivalent. Pieces 10 feet or over long, 10 and it inch wide, will admit of three standard defects or their equivalent. Pieces 10 feet or over long, 12 inch or over wide, will admit of four standard defects or their equivalent.
No. 1 Common.-Widths- 3 inch and over. Lengths $-6,8,10,12,14$ and 16 feet. Pieces 3 or 4 inch wide must have one clear face and two square edges. Pieces 5 inch wide, 6 feet long, will admit one stanaard defect. Pieces 5 inch wide, 8 feet and over long, will admit two standard defects or their equivalent. Pleces 6 feet long, 6 to 11 inch wide, will admit one standard defect or its equivalent. Pieces 6 feet long, it inch and overwide, willadnit two standard defectsor their equivalent. lieces 8 or to feet long, 6 inch and over wide, must work two-thirds clear in not over two pieces. Pieces 12 feet or over long, 6 inch or over wide, must work two thirds clear in not over four pieces. No piece of culting to be considered which is less than 3 feet long and 3 inch wide, or 2 feet long and 6 inch wide.
No. 2 Common. - Widths- 3 inch and over. Lengths$6,8,10,12,14$ and 16 fcet. Picces $6,8 \mathrm{cr} 10$ feet long must work $50 \%$ clear in not over threc pieces. Piects 12 feet or over long must work $50 \%$ clear in not over pieces. No piece of cutting to be considered which is less than 3 leet long and 3 inch wide, or 2 feet long and 6 inch wide.
No. 3 Common.-Widths- 3 inch and over. I.engths $-4,6,8,10,12,14$ and 16 feet. No. 3 common must contain at least $25 \%$ of sound cutting.

## BASSWOOD.

Grades-Firsts, seconds, No. 1 common, No. 2 conmon and No. 3 common. Standard thicknesses-1, $11 / 4,1 \frac{1}{2}, 2,2 \frac{1}{2}, 3$ and 4 inch when dry. Bright sap is no defect in any grade.
k.IRSTS. -Widths- 5 inch and over. Lengihi- 10,12, 14 and $: 6$ feci. 5, 6 and 7 inch must be clear. 8, 9 and to inch will admit one standard defect. $t i$ inch and over will admit two standard defects or their equivalent. Seconds. - Widths -5 inch and over: 5 inch must be clear. lengths- $8,10,12,14$ and i6 tect. Pieces 8
fect long, 6 and 7 inch wide, nust be clear. Pieces 8 leet long, 8 inch and over wide, will admit of one stand. ard delect or its equivaleat. Pieces 10 feet or over ard delect or its equitalesti adeces 10 fect or over
long, 6 and 7 inch wide. will admit ol one standard delong, 6 and 7 inch wide. will admit of one standard de-
fect. Pieces to teel or over long, 8 and 9 inch wide, fect. Pieces to teet or over long, 8 and 9 inch wide,
will adnit of two standard defects or their equivalent. Will idnnit of two standard delects or their equivalent.
Pieces to feet or over long, to to 11 inch wide, will Pieces to feet or over long, 10 io 11 inch wide, wil admit of three standard defects or their equivalent. Pieces to feet or over long, it inch or over wide,
admit of four standard defects or their equivalent. admit of four standard delects or their equivalent.
No. : Common. - Widhs- 5 inch and over. Lengths
$-6,8,10,12,14$ and 16 feet. Pieces 3 or 4 inch wide
minst have one free clear and two square edges. Pieces 3 inch wide, 6 fect long, will admit of one standard defect; pieces 5 inch wide, 8 feet and over long, will admit of two standard defects or their equivalent. Picces 6 fect long, 6 to 11 inch wide:, will admit of one standard defect of its equivalent ; preces 6 feet long, is inch and over wide, will admit ol two standard defects or their eguivalent. Pieces 8 is to feet long, 6 inch and over vids, must work two thirds clear in not over lwo picces. Pieces 12 fret or over long, 6 inch and over wide, muyt work two hurds clear in not over four pieces. No piece of culthis in this grade considered which is less than 3 feet iong and 3 inch wide, or 2 feet long and 6 inch wide.
No. 2 Common.-Widths-3 inch nnd over. Lengths $-6,8,10,12,14$ and 16 fect. Pieces 6,8 or 10 fiet long must work 50 per cent. clear in not orer these pieces. Pieces 12 feet or over long must work go per cent. clear in not over four pieces. No piece of cutting in this grade considered which is less than 3 liect long and 3 inch wide, or 2 feet long and 6 inch wide. Nis. 3 Common. - Widths 3 inch and over. Lengidis$4,6,8,10,12,14$ and 16 feet; No. 3 common must conlain at least 25 pes cent. of sound culting.

Bebch, Bircil and Black Asif
Grades-Fitsts,seconds, No. I common, No. 2 common and No. 3 common. Standard thicknesses $-1,11 / 4$, $13 / 2,2,21 / 2,3$ and 4 inch when dry. Bright $\operatorname{sap}$ is no ovfect in any rrade.
FiRSTS.-Widihs-6 inch and over. Lengths-10 12, 14 and 16 feet 6 and 7 inch must be clear. 8 , 9 and so inch will admit one standard defect. is inch and over will admit two standard detects or their equivalent.
SECONDS. - Widths-6 inch and over. Lengths--8, 10, 12,14 and 16 feet. Pieces 8 feet long, 6 and 7 incli wide, must be clear. Pieces 8 fect long, 8 inch and o:or wide, will admit of one standard defec! or its equivalent. Pieces 10 feet or over long, 6 and or its wide, will admit of one standard defect. 7 and 7 inch wide, will admit of one standard defect. Pieces 10 fect or over long, 8 or $n$ inch wide, will admit of two standard defects or their equivalent. Pieces 10 feet or over long, 10 or 11 inch wide, will admit of three
standard defects or their equivalent standard defects or their equivalent. Pieces to fect o or over long, 12 inch or over wide, will admit of four "tandard defects ur their equivalent.
No. : Common.-Widihs- 3 in. and over. Leng!is
$-6,8,10,12,14$ and 16 fect. Pieces 3 or 4 inch wide $-6,8,10,12,14$ and 16 fect. Pieces 3 or 4 inch wide must have one face clear and two square edges. Pieces 5 in. wide, 6 feet long, will admit of one standard defect; pieces 5 inch wide, 8 fect and over long, will admit of iwo standard defects or their equivalent. Picces 6 feet long, 6 to 11 inch wide, will admit of one standard defect or its equivalent, pieces 6 fect long, 11 inch and over wide, will admit of wo standard defects or their equivalent. Pieces 8 or to leet long, 6 inch and over wide, must work two.thirds clear in not over two pieces. Pieces 12 feet or over long, 6 inch or over svide, must work twe-thirds clear in not over four pieces. No piece of cutting in this grade considered which is less than 3 feet long and 3 inches vide, or feet long and 6 inches wide.
No. 2 Common. - Widths-3 inch and over. Lengths - $6,8,10,12,14$ and 16 fect. Pieces 6,8 or 10 feet long must work so per cent. clear in not over three pieces. Pieces 12 fect ar over long must work 50 per pieces. Pieces 12 fect or over long must work 50 per
cent. clear in not over four pieces. No piece of cut. ting in this grade consider pd which is less than 3 feet long and 3 inch wide, or 2 fect long and 6 inch wide. long and 3 inch wide, or 2 fect long and 6 inch wide.
No. 3 Common.-Widths- 3 inch and over. Lengths No. 3 Common. - Widths- 3 inch and over. Lengths
$-4,6,8,10,12,14$ and 16 feel. No. 3 common must $-4,6.8,10,12,14$ and 16 feel. No. 3 comm
contain at least 25 per cent. of sound cutting.

Soft ELM.
Grades-Firsts, lieconds, No., common, No. 2 common and No. 3 common. Standard thicknesses-1, 11/4, 11/2.2, 21/2, 3 and 4 inch when dry. Bright cap is no defect in any grade.

Firsts.-Widths-6 inch and over. Lengths-10, 12, 4 and 16 tect. $G$ and 7 inch must be clear. 8,9 and to inch will admit one standard defect. it inch and over will admit two standard defects or their equivalent.
Secondr.-Widths- 6 inch and over. Lengths- 8 , 10, 12, 14 and 16 feet. Pieces 8 feet long, 6 and 7 inch wide, must be clear. Pieces 8 feet long, 8 inch and over wide, will zimit of one standard defect or its equivalent. Pieces 10 feet or over long, 6 and $;$ inch wide, will admit of one siandiard defect. Pieces 10 iect or over long, 8 and 9 inch wide will admit of two standard defects or their equivalent. Pieces 10 feet or or over long, 10 and it inches wide, willadmit of three standard defects or their equivatent. Pieces 10 feet or over long, 12 inch or over wide, will admit of four standard defects or their equivalent.
NO. 1 Common. - Widihs-3 inchand over. Lengths $-6,8,10,12,14$ and 16 fect. Pieces 3 and 4 inch wide inust have one face clear and two square edges. Pieces 5 inch wide, 6 fect long, will admit of one standaru defect. Pieces 5 inch wide, 3 icet long, will admit of two standard defects or their equivalent. Pieces 6 feet long, 610 :1 inch wide, will admit of one standard defect or its equisalent. Pieces 6 reet longy, is inch and over wide, will admit of two stardard defects or their equivalent. Pieces 8 and in feet long, 6 inches and over wide, must work two-thirds clear in not over two pieces. p'ieces 12 fect or over long, 6 inch or over wide, must work two-thirds clear in not over
four piaces. Nopicee of cutling to be considered which ialess than 3 fect long and 3 inch wide, or 2 feet limer and 6 inch wide.
feet : Ciommon.-Widths- 3 inch and over. Lengths $-6.8,10,12,14$ and 16 feet. l'ieces 6,8 , or 10 feet long nust llork 50 per cent. sound cutting in not over threw preces, picces 12 fect long must wo.k 50 per cent. suad cutting in not over four pieces. No piece of cultiln to be considered which is less than 3 feet lons and 3 inches wide or 2 feel long and 5 inches wide.
Bu. 3 Cummon. - Widthy-- 3 inch and over. Lengths
t. $0,8,10,12,14$ and 16 tect. No. 3 common must contan at least $25 \%$ of somind cutting.

ROCK RLM.
(ir nene-Firsts, sconds, No. 1 common, No. 2 common uni No. 3 common. Standard thicknesses-1, 1华, $1 / 2, \therefore 21 / 2,3$ and 4 inch whendry. Bright sap is 110 defied in any grade.

Jinms.-Widths-Ginch and over. Lengths- 10,12, $14: 3 \mathrm{al} 16$ fert. 6 and 7 inch must be celear. 8, 9 and is in, 1 will admit of one standard defect. 11 inch and oser will admit of two thandard defects or their
cupidalent.
Sf Conds. -Widths- 6 inch and over. Lengths- 8 , SFConvs.- in, 4 and 16 feet. Pieces 8 leet long, 6 and 7 inch $10,12,: 4$ and 16 fect. Pieces 8 feet long, 6 and 7 inch wide, must be clear. Pieces 8 feet long, 6 inch and wer wide, will admit one standard defect or its equiv-
alent. Pieces 10 feet long, 6 and 7 inch wde, will ad-
mit of one standard defect. Preces to feet long, or luoker, 8 and 9 inch wide, will adme of two standard difects or their equivalent. Pieres to feet ar over lang, io and it inch wide, will admit of three standard defects or their equavalent. l'ieces 10 feet or over long 12 inch or over wide, will admit of four standard defect or their equivalent.

No. 1 Common.-Widths -3 inch and over. Lengthy $6,8,10,12$, if and 16 feet. Pieses 3 or + inch wido $6,8,10,12$, if and 16 ree. 1 eres 3 nr $f$ inch wide munt have one face clear and twosquare edges. lieces 5 incli wide, 6 feet and over long, will admit of one stanlard defect. lieces 5 inch wide, 8 feet and over long, will admit of two shandatd defects or their equis alents. Pieces 6 feet long, 6 to it inch wide, will admit of cue $\operatorname{liandard}$ defect or its equivalent. Pueces 6 teet long, 11 inch and over wide, will admit of two standard defects or their equivalent. Pieces 8 or to feet lunc, 6 inch and over wide, must work two-thirds clear in not over two pieces. Pieces 12 feet or over long, 6 inch or over wide, mast work wo thirds cleat in not over tour pieces. No piece of cutting to be considered which is less than 3 feet long and 3 inch wide or 2 feet long and 6 incl. wide.
No. 2 Common. - Widths- -3 inch and over. l.ength: $-6,8,10,12,14$ and 16 feet. lieces 6,8 or 10 feet long must wor's $50 \%$ sound cutting in not over three pieces. Pieces 12 fect or over long must work 50 . sound cutting in not over four pieces. No piece of cilting to
be consudered which is lens than 3 feet long and 1 inch wade, or 2 feet longs ant 16 in h while
No. 3 Common. - Widthe- 3 inch and over. Lengeths $-4,0,8,10,12,14$ and 16 feet. No 3 common masi contrin at least $25^{\circ}$ of sound cutting.
striph.

Widtlis--3, 4, 5, or 6 inch. l.englis-6, 8, 10, 12, 24 and 16 teet. Grades- Clea, No. I cummon and No. 2 coummon.
CitEAR.-Clear strpy must be to to ib tect long and show one lace lear and two good edges.
AO. 1. ComMons. No. 1 commen tripe mint be ex to 10 feet long and not to exceed 20 , shorter than 12 feet, and may have one standard delect showing on both faces.
No. 2 Common. - Nio. 2 common stripu mus' be 6 feet or nev long, and must work one-half clear in not more than three pieces. No plece of cutting hould be less than 2 feet in length.
Stel l'ianh. Grades-- first and mecond and common. Widalis 11 to 2.5 meb. Thickresses $14,1!$ and 2 inch. Lengths 10 to 16 feet. lirgts and seconds mant be clear one face and one edre. The reverse side and be clear one face and one edre.
 asplit not exceeding 12 in length. Common include all lumber below the grade of tirste and seconds that will work two-thrds of the lengls clear; no cutting to be leas thats if feet long by the full widh of the pricce.

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Milton, Pennsylvania


## REVISION OF NEW BPUNSWICK TIMBER LAWS.

Two important changes hate been made in the laws to which all purcharers of timber Irom the New Branawiek Government must submit. The stumpage dues have been incerased from \$1 to $\$ 1.25$ per thousand teet and the charge for renewal of leases has been increased to $\$ 8$ per square mile, as compared with $s_{4}$ in the past. The views of the Government on the sarious matters affeating the lumber moustry are set forth in the reply of Hon. A. T. Dann, Survejor General, to the memorial presented by the New Brumswick I.umbermen and Limit Holders Association, which we print helow:

THL GRVETOR-GENERM.'S MEPLL.
To Mewrs. Henry Hilgard, Kilgour Shives,
W. B. Sanurall, John E. Moure, G. G.

King, L:. Hutchinson ard R. A. Lawlor, Commette of The lumbernen and limit Hol.es' Als ciation:
giemthmes. 1 and directed to inform you that I submithed to the Executive Council your memurial of the 29th September last, and to say that the matters therein relerted to have received very careful consideration.

As you have made recommendations in teference to the administration of the crown lands which are very important, it will perhaps be well to refer to them in detail, and to acquaint you with the views of the goternment in respect thereto under the different headings.
, The question of allowing turs ; be removed without payment of stmmpare is one inwhines saricus difficulacs, a mod, atior con-ultation with the offieers of the departmet:t, who are tully competent to judge upon these matlers, the Dexecutive Council has reluctannly been lorced to the conclusion that it cannot aceste to your views. liou will remember that this mater was trought up before the Deparment of Cronn lands some years ago and the Surwear Guneral endeavered tol meet the viens of the lumbermen in this regard, tut finding that adeantage was takea throughout the dif feremt setions of the province, by certain operators whe clamed tiat a larize percentage of their cint win on tops alone and therefore should not be biable to sump:uge, is became necessary to adope a differem folicy, and tor this and wher ramons it is not considered advisable in she publie interest that the present polioy in this regoud should be departed rom.
2. White the Exective Coancil is inperesud with the tiew put torword on the secend para'graph of your memorn's, with reference to the increand eow . Hencing the procuring of lumter :and gevime it in mather yet it should be barne in mind that a e praince has in recent years expended large athando of money in the hailding of railwa, which have very considerably lowened lite cout . A taking the supplies ti the head waters of the rivers where lumbering operations are carried vin, and his fact, as well as the reduced const of upplies, should be taken into consideration in determining what wobld be a tair rate of alumpare-

It munt alsm be harme in mind thil since the adogtion the the gowernment of the poliey of granting the licensess for wemy-five years, the volue of the hobdings of hieneses has mereased enormomsty. Miny licemees whon purchased at
the upset priee of $\$ 8$ por square mile, now hold their lands at \$roo and upwards; and while it may be true that the cost of pro:uring the lumber has increased, owing to the ligher rate of wages now prevalling, it is within the knowledge of the exccutive that the price of lumber in the local markets has very laregly increased, and is in many cases nearly fifty per cent. higher than it was ten years ago. These facts cannot be ignored by the governmert as trus'ees of the public in determining this question.
3. The question of having different rates of stumpage in different sections of the province is a very important one, and the Executive Council has telt that a great deal could be said in favor of discriminating in this regard, having reference to the accessibility to markets. the facilities for procuring lumber, difference in freights and other circumstances, but it has been decided to acquiesce in the views put forward by you on behalf of the lumbermen and continue the uniform rate throughout the province.
4. In respect to recommendation No. 4 contained in your memorial, the Executive Council feels that it would not be in the interest of the province that a: regulation of general effect should be made regarding the reduetion of stumpage to operators cutting or hurnt districis, but has decided that in cases of this kind application must be made to the Surveyor General, and hy him referred to the Commintee ot Council for decision, and each case will be dealt with upon its merits; but the general opinion is that unly in very exceptional casts should any reduction be made.
5. In regard to your recommendation No. 5 the Executive Council recognizes that there are throughout the province certain areas under license upon which the timber is not likely at any time, when cut, to become what would be termed merchantable; but the same remarks as made in referet.ee to No. 4 must apply in these cases, nar.ely, each case must be the subject of special application and receive the sianction of the executive, upon report of an officer of the Crown land department.
i. With regare to the recommendation contained it paragraph 6 of the memerial, the Executive Council has ciecided that new regulations shall be made for the belter protection of the forests from fire, and that ample means will be emplayed to protect the timber lands throughout the province.
i. The recommendation contained in paragraph 7, that all $F$ :sons going into the woods during the dry season shall first have to secure a license from some person duly authorized for that purpose, would be difficult of enforcement, but the Executive Council will carefully consider as to what can be done in this particular.
8. The Executive Council has given full consideration to the comparative statement of the scales and rates of stumpage in the provinees of New Brunswick, Quebec and Ontario, and likewise the ameunt paid for renewals. The Executive Council is, however, of the opinion that the seales and rates of stumpage and renewal charges in the provinces of Quebec and Ontario do net afford a safe guide upon which the government could act in the discharge of its duty to the people of this province.

The charges to be made for the public p.operty must be based upon the conditions exi, ing in New Brunswick, and it is the duty if the Executive to impose such rates as the wite of the lumber business from time to time will reasonably warrant. Aiter the very full- $-\frac{1}{}$ and most careful consideration the Executive Council has determined that a fair rate to now im. pose would be, for renewal licenses the virn of \$8 par square mile, and that the stumpag' raie should be $\$ \mathrm{r} .25$ per thousard upon spruce, pine, fir and ce : and a proportionate rate on other lumber.

The above rate of stumpage will be en..cted upon the cut of the present season, and tue increased mileage charge on renewal licensw, will be enforced on all future renewals. Resulittions will be made to carry this decision into effect, and any legislation which mat be deemed necessary by the Executive to liring the proposed changes into operation will te subnitted to the legislative assembly for anatiment.
9. With reference to the suggestion of your committee contained in paragraph 9 of the momorial that in case it is the intention of the government to raise the stumpage, the term of the present leases should te extended for a per-iod-of 1 wenty-five years from the date of the incresed stump .ge, the Executive Council would call jour attertion to the fact that at the time the policy of granting long leases was determined upon, it was clearly understood by the lumbermen that the right was reserved to the government at any time increase the stump ge and also the mileage rate; and in view of this fact, the government does not think it desirable that the question of granting a further cximsion should form an element in cons dering the amount of stumpage and mileage rate to te paid.
10. Referring to paragraph to of the memorial; while the Execative Council recognizes to the fullest extent the great desirability of preserving from encroaclmment of trespassers the licensed crawn timber lands of the province, yet it cannor accede to the proposition which is suggested in the tenth pardgraph that the viacant lands of this province should simply, bicause they are under license, not be opened for settement. The policy of the government is. that wherever suitable lands for settement are avaitable throughout the province, the fullest opportunity should be given to bona fide aplic:ants to settle upon such lands. The department, however, will be careful in the ruture, as in the past, to scrutinize all applications in order to determine that they are bona fide, and will only approve of applications that are made in districts where the land is suitable for agricultural purposes and for settlement.
if. As to the statement in paragraph is of your memorial, the government intends to ir.troduce an amendment to the act relating to the survey and explortation of timber, so as to meet thedifficulties suggested in this paragraph.
12. The suggestion made in paragraph 12 of the memorial merits favorable consideration. and it is the intention of the nvernment, as far as possible, to have hase lines run over all the crown lands, so that the evil complained of may be remedied.
13. With regard to the suggestion contained in the thirteenth paragtaph of the memorial, the promernment is unable to see its way clear to mathe any general regulation allowing lor the cut ol fogs of a smaller size than that already provided for.

In whelusion, the Executive Council desires me to say that the preservation and protectun of the crown timber lands of the province hanc tient the subject of the very gravest consiletation by the government, recognizing, as it des, the great importance to the province of pewerving and encouraging this great indust!. The Executive Council is fully :.r.are that the pulicy whicit was adopted in 1893 of gramoug long leases has been an important factor in this direction, having given an incentive which did not previously exist to the licennees to take all possible means to protect ther holdings. The question of whether or nut it is desirable to still further extend the terms of the licensees, thereby ensuring greater permanency of tenure, is one of great importmove and will receive the most careful attention.

It this connection, it may be proper to observe that the Executive Council recognizes the eynitable claims of those who have invested large amounts of money in the erection of mills, the building of boome, wharves, etc., in curinection with the carising on of lumbering and milling cperations, to hold lands for the purpore ol supplying their mills. Upon the other hand, your committee will readily recognize the objections which may be urged and which would naturally have sveight with the people of the province against permanently locking up its timber lands without first affordins an opportunity to all persons to acquire an interest therein, if they saw fit to do so.

In considering this question, it must be approached from the standpoint of the public interest, and also with a view to protecting the larse number of persons throughout the province who are engaged in this industry. The government recognizes the great importance of speedily arriving at a proper conclusion, and your committee may reply upon the subject receiving the fullest consideration. I have the honor to te, gentlemen,

Your obedient servant,

## A. T. Duns,

Surveyor-General.
Fredericton, N. B., Dec. 4, 1903.

## RUNNING SLACK BELTS.

The practice of running slack helts is a babit indulged in more or less by su-called "wise ones," who also use considerable belt dressing, filling, ctc., of various kinds. Now this practice is all right, if not carried ton far ; and as tor belt dressing, a little goes a good way if properly used.

One cause of trouble with slipping belts may be a lack of width. Why not have the belt wide enough to carry the load? Why try to make a 16 -inch beit do the work which an 18 or 20 -inch belt should do? Would anyone believe that an engineer would allow his engine belt to get so slack that it would jump on the pulley and knock out the side of a brick wall?

This assertion scems a bit doubtful, but it is nevertheless truc. It was a 36 -inch belt and
ran up through the foor to a pulley which was hung as close to the brick wall as possible; in fact, half the thickness of the wall had been removed so the face of the pulley ran inside the wall line. That left a culge of brick about for $\mathbf{j}$ inches from the belt. The belt began to slip, and the dressing was piled on to make it pull. It got so slack that one day, when an unurually heavy load wats on, it began to run in wave; and jump on the upper pulley. Atter keeping this up awhile, it finally made one superhuman effort and succeeded in knocking a dozen or more bricks out of the wall. That night when the engine stopped, the belt was examined and found to be badly bittered up. Three laps had started at the corners, and the edge, for almost the entire distance around, was open from 2 to 4 inches, and curled up. Seven inches was taken out, the edges cemented well, and there was no more trouble. It is needless te add that a saving of belt dressing was noticed at once.-"J.H. L." in The Wood-Worker.

## DRAFT : NATURAL AND FORCED.

Broadly apeaking. combustion is the wion of the carbon of the fuel with the oxygen of the air. Air is as essential to it as tuel. When the air passes through the fire it lowes its oxygen, just as the fuel toser its. -.uivar: and the deoxidized air is as useless as the ashes. It is therefore as necessary to renew the sup. ply of air as to protide mure fuel. This renewal of the air is accomplistied by the operation of three natural


> Gornos Hollow Biast Grate:
laws-first, the law that heat expands, which, by causing the same weight of air to increase in volume, causes it to become lighter, volume for solume, than it wats beiare; second, by the law of kratitation, which impels the colder and consequently denser and heavier air outside of the furnace so flow in, exactly as water poured into a vessel connaining oil settes to the bottom; and third by the law of impenetrability, which decrees that two bodies cannet occupy the same place a, the same time, and therefore causes the heated air to rise as the cold air nows under it, just as the oil rises when the water settes. Thus we have accoumted for the ascending movement of the heated air and products of combustion up the stack.

It $x$ obivious that the greater the difference in temperature between the heated air and the colder, denser and heavier ais outside, the more pronounced the inflowing of the colder air, because the greater the dif. ference in weight. This difference can, of course, be ancreased eather by making the heated air hotter wr by making the colder air colder.
There is another way in which the difference in pressure between the decoidized air above the grite and the frean air below can be increased, viz., by forcing fle fresh air in, as by means of a rotary blower. It is thus that the Gordon Hoilow Elast Grate produces its wonderful results. To the pressure exerted by the colder air by its superior weight, 11 adds the pressure imparied by the blades of a fan travelling approximately ten thousand feet per minute. The pressure obtained by the union of these two forces-weyght and the momentum resulting from eentrifugal forec-is such as 20 produce a draft sufficient for the rapid combus-
ton of wet or green sawdust, eden when there is mixed with it a liberal percentage of ice and snow. Moreover, the hotter fire the grate produce, thus, mechanically, the hotter and theretore lighter does the air above the grate become, and, therefore, the mure readils the heated arr $w$ forced up the stack. In other words, the grate both increases the pressure from below and decreases the rewintance abole, the rexull being a wath ly impoved draft.

There is also amother decided advantage that the Gordon Hollow Blast lirate has. Une of the diticultes incalem to burmag wet or s.reen adsolus is its tendency to settle down so compatly as watake it hard for the :ur to penetrate it. Now, the Gordon Hollow blant Grate places at the disposial of the tireman a current of air under sulticant preshure to force a passage and keep the salwdunt loone, thus gatigg the natural draft as well as the blast a clatnce. The exat amount of this pressure may be regulated to a nieety by a satle provided for that purpore.

Again, with the Gurdon Hollow Blath lirate the air is compressed by the ation of the blower, and being: compressed, it contans more axysen, whume for volume, than aur mas batural thati, lous promotints combustion in the same manter that, other thing being equal, the fuel containing the mont carton athd other combustibles will develop the mont heat.

Finally, the blat causes the salwhust to dry more quickly, thus making it easier to burn.
The foregoing explatation of the nature of the draft shows why the mere fact that the stack is of sufticient enpacity does not indicate that the Gurdon hollow Blant Grate would be superfluou-. A large stack merely affords facilition for a strong draft, by git itg the featedair and products of combuntion ample rowm to escape withous resintance; the Gordon Hhollow Blast Grate produces at streng draft. by folcing the air in under pressure and making a holler fire. It aho reveals why the Gordon Hollow Blant Grate is superior wat oven, which, white possesing sereral excellent adtantages, does not inerease the drati mechanically.

The manufacturers are the Giordon Hellow Blant Grate Company, of Gireenville, Michigan.

## EDUCATION OF FILERS.

Loctuls, Nov. solh, :703.
hditor canada Lemarrmas: :
Dear Str,-1 hase been employed for a long time in the manufacture of lumber and 1 feel that a great saving of timber and sime could be obtained in s.ec majority of mills, particularly in the smaller mills of 25,000 feet per day and under, by the mall owners doing more in the way of educating their mill filerc, as this is where the principal part of the work is when the machinery is not at fault. More disputes arine among lumber iny.ectors from good timber being badly wan than from any other defect. It is well known to the trade that at least 25 per cent. of the culls is due 10 bad sawing. This question should be more thoroughly considered by the mill owners.
I would say that this could be remedied by having an examination for mill filers, and those who passed should be furnished with a diploma. This would make the filer take more interest in educating himself for the work and it would place the nill owner in a position so have more confidence in the filer, aud this would, no doubt, result an better equipped filing rooms and better made lumber.
It is generaliy theught that saw filing in nothing more or less than at lithe pratelice to steady the nerses for the work, but this is a great mastake, ds there is nothing connected with the lumber busnew, which requares nore careful study shath the circular or band satu. The time has alteady come when timber sating should be carcfully siudied, and I think something in the way I have suggested would be of great benetit to the gencral manufacturing of lumber.

Cousstruly,


The next annual meeting of the llardwond Manufacturers dssociation of the l'nited States laker place al the Grand IIotel, Cincinnati, O!nio, January ath and 27th, s904.

## WOOD PULP~ Q~ DEPARTMENT

## IMITATION SILK FROM WOOD.

John E. Kchl, United States consul at Strettin, Germany, writes as follows under a recent date:
I have to-day seen samples of imitation silk for weaving purposes manufacturd from wood. It is an English patent granted to C. H. Stearn, 47 Victoria street, Westmunster, London. The rights for the United States, Germany and France have been sold. Prince Henckel-Donnersmarck has purchased the German rights and has just completed the erection of a plant at Sydowsaue, about 5 miles from Strettin. My informant says that the plant is at presen turning out 50 pounds of skien silk per day, which can be increased to a daily output of 2,000 pounds. The sample shown me was very soft and of a cream color. Each thread is made up of eighteen single strands. A single strand is hardly perceptible to the naked eye. As to the relative strength of a real silk thread and this initation, the real silk is two-thirds stronger. It is said to take coloring or dyeing readily, and when woven into pieces has the apperance of real silk. Wood silk seems to have a great demand. I was told that within the last ten days the price jumped from 19s. to 28 s . ( $\$ 3.86$ to $\$ 6.81$ ) per pound. How this new artificial article compares with the genuine, in the way of wear and price, I am unable to say. It is impossible to get samples here, or information as to the process of manufacturing, excepting that no particular kind of wood is required and that the pulp undergoes a chemical process and is pressed through very fine tubes by hydraulic pressure, forming the single strands which go to make up thread."

## THE COUNTERVAILING DUTY AGAIN.

The last of the series of wood pulp hearings before the Board of United States General Appraisers took place on Decenber roth. This hearing was the latest in a series of four which have aroused considerable interest. The question at issue is whether the U.S. (iovernment shall charge an extra duty on wood pulp imported from Canada. The previous cases had to do with importations Irom Quebec, Ontario and Nova Scotia. The present case concerns importations from New Bruswick. The companies interested are the Dominion Pulp Company, of Chatham, and the St. John Sulphite Pulp Company and Cushing Sulphite Fibre Company, of St. John, N. B. According to the testimony, they use in their pulp mills only wond cill in New Brunswick.
The protests are against the imposition by the United States Government of an extra tax of 25 cents per ton on ground wood brought into that country when the pulp wood from
which it was made was cut on Crown lands. The reason for levying this extra duty is because Quebec province allows a rebate of 25 cents per cord from the stumpage tax when the wood cut on Crown lands is ground into pulp in Canada. The authority for the imposition of this countervailing duty is found in a proviso of paragraph 393 of the tariff act of 1897, which reads : "Provided, that if any country or dependency shall impose an export duty on pulp wood exported to the United States, the amount of such export duty shall be added to the duties herein imposed upon wood pulp imported from such country or dependency." From this it is seen that the United States Government considers the rebate on the stumpage tax as equivalent to an export duty.
M. F. Mooney, manager of the St. John Sulphite Pulp Company, E. R. Vickery, manager of the Dominion Pulp Company, and H. W. Schofield, secretary-treasurer of the Cushing Sulphite Fibre Company, testified that no export duty was charged on wood from New Brunswick. It was adinitted that some of the wood handled in the mills was cut frem Crown lands. The main defence, however, was based upon two letters, one over the signature of the Attorney-General of New Brunswick, and the other over that of Albert T. Dunn, SurveyorGeneral of the province. These two letters both stated that no export duty was charged on wood exported from New Brunswick.
The New Brunswick case is very similar to the Nowa Scotia case, which was decided in favor of the importers.

## IS ROSSED WOOD DUTIABLE?

Argument is being heard in New York in the protests against the imposition by the United States Government of a duty of 35 per cent. ad valorem on impurtations of rossed wood. The protesting companies ask for the refund of the duties paid by them for the short period in which the tax was collected. It will be recalled that last May the collectors of customs along the Canadian border were instructed by the Treasury Department to collect 35 per cent. ad valorem on the rossed pulp wood entered at their $\cdot$, pective ports. Within ten days or so this order was withdrawn pending investigations.

The contention of the Government and the timber land owners is in brict that rossed pulp wood is really a manulactured article and for that reason should not continue to enjoy free entry as it has done since the rossing process by machincry was introduced. Counsel for the protesting companit:s, on the other hand, contend that the free entry of rossed pulp wood should be continued, as the removal of the bark from the logs doas not change the "name,
character and use" of the article. They rely somewhat on a decision of the United States Supreme Court, which laid down the rule that the duty on an article could not be changed unless in the manipulation of the artide its name, character and use were changed. The fact that the bark has been taken off the logs does not make of them manufactured articles, so the protesters claim. A paragraph of the Tariff Act of 1897 provides for free entry of "logs and round unmanufactured timber, in. cluding pulp woods," etc. Under this paragraph pulp wood of all kinds has been going in free of duty.

The importance of the affair resides in the fact that if purchasers of pulp wood in Canada find it necessary to ross the wood before taking it into the States, the cost of their product will be increased if the duty be imposed, by one-third the original cost of the wond. Naturally this would mean a very material increase in the price of paper. As between rossing the wood in Canada and performing that operation after the wood has been taken into the States, however, there seems to be no great advantage, excepting possibly a saving in freight, as there is probably little difference in the cost of the operation, whether it be performed in Canada or in the United States.

Some very nice points of law were brousht up by counsel on cither side, as, for example, that rossed wood was an article unknown when the present tariff law was enacted, and therefo $\because$ is a new article of manufacture. The controversy depends upon the question whether the operation of rossing is one of manufacture; in other words, whether the name, nature or use of the article has been changed. The decision of the appraisers will be awaited with a great deal of interest.

## PULP NOTES.

The Rritish Wood Pulp Association have decided to put into the standard contract the following clause: "All dutics, if any, levied on wood pulp sold under this contract to be payable by the purchaser."
The new pulp mill of the Chicoutimi bulp Compans at Chicoutimi, Que, was dedicated on November 2 Sth. The mill is $300 \times 100$ fect, with an annex Sox6o feet. It is said that the entire production until igus has been sold to a Yanchester firm.
The shareholders of the Labrador Electric and Pulp, Company, Limited, have elected a new beard ol directors. as follows: President, E. D. de Varenennes, Warerloo: viec-president, Ed. Warren, Malbaic: Rudolphe Forget, P. Laferriere, and S. P. Stearns.
During the eleven months ended November 3nth last mechanical wood pulp was imported into Great Britain to the extent of 208, io6 tons, and chemical 202,366 tons, and during the corresponding period of last year the imports of mechanical were $=92,5 j+$ tons and chemical 277,028 tons.
At a recent meeting of the directors of the Brompton Pulp and Paper Company, of Brompton Falls, Que., arrangements were conipleted for the erection of a large paper mill next spring, to consist of four machines of the largest and most modern type. The pulp mill of the company was completed last summer.
Reporting upon the wood pulp srarket in France, A. L. Grondal, of Paris, states that the upward tendency of prices for chemical is well maintained, and there are no stocks on hand to speak of. Mechanical is hrmer, although there is no great activity; producers refuse offers at lower prices than quoted, and consumers show a dispnsition to await further events, even if they have to pay higher prices later on.
J. R. Booth, of Ottawn, evidently imtends to mann. factur- pulp on a large scale at his new mill at the Chav live, opposite his saw mill. Reports from "up coumt: go to show that the gangs in the Booth camp are taking out pulp wood as well as logs. A harg. - fook of pulp wood has already been taken down to the mull.
[li.v week, says the l'aper Trade Journal, of New Soth, there bave been a few inquiries for pulp, but as dons stic manufacturers have no surplus that they are wither to part with there have been no sates. Sume Cunodian ground wood could have been bought to sumb those in need, but as this would have cost the buycr about $\$ 26.00$ delivered, the offer was refused. The situation, therefore, remains as it has been for weeks.
fothowng the changes an the Cushing Fibre Compans, of St. John, N.B., Mr. James Beseradge, who has acted as managing director, will return to England. Ilnamvies will, it is understood, still the retained in the smerests of Capt. Partington. The staff of the Curhing Sulphite Fibre Company now consists of the followag: Joseph R. Clarkson, manager and superintendent of nill ; H. W. Schofield, secretary-treasurer William C. Birrell, sales agent.

A witier in the Paper Mill says that American buyers re scouring the market for Canadian pulp wood. Two of them hate been negotiating for at 2,000 cord tot in Quebec. They offered $\$ 7$ f. o. b. on cars, but the holder would not sell at that price. They bid twemyfise cents more, but still without suciess. The wood is convenient to the United States border, its it is in the Eastern twonhips. A gear ago $\$_{5}$ would have been jumped at for the wood. Now the price in mearly do per cent. more.

The Orental Power \& Pulp Compang, a corporation of Engli,h capitalists, has taken steps to construct the necessary whates and wher prelimmary woiks tor large palp and paper mills to be built on the const of Britinh Culumbia. The proponed puly mill will have a drily capacity of 50 tuas and is expuected to be com. pleted withna year. It is the intention to build at once at sall mall, whelh will cat the lumber to be used in the consiruction of the pulp mill. Simatancounts wath the building of the pulp $n$-ill a power house will be built, in which connection lule Lake .. th e dammed at the mouth of a small creek, a pip: ic nalf a mite in length carrymg the water to the power house. It is ertimated that 17,000 horse power can be developed at low watet period. The timber hamts owned by the compang comprise 83.200 acres, of which 62,000 hate already
been selected and surveyed. J. J. Palmer, of Toronto, is the only Canadian shareholder in the company.
Charles II. Vogel, mill and hydraule engineer, of Ollawa, has under way plans for a plant for the Nepison 'ulp, Paper and Manatacturng Company, which is to be located on the Canadian Bacitic Railmay, about So miles cast of Port Arthur. The paper mill will be equipped with two large, fast-ruuning paper machines, and the pulp mill will have a daty capacety of so tone. The plant will be so buill as to make possible at d..ublling of its capacity at a later date, and its prenent cont will approximate a half-million dollars. Another new plam to be buth under Mr. Fogel s supervivion the comong spring is that of the Rainy Lake Pulpand Paper Company, to be located in the Rainy late country at the head waters of the Ramy River, on a stream which will devel' . 8,000 horse-power. The compatiy ha, concersous from the Ontato Government for the water power, tugether with 27: syuare miles of timber hands.

Curry \& Thrasher, of Forrester', Falls, Ont., have entablished a cmpona timber limit at Deux Rivieres and ate making timber there this winter. It is their intention to clear a site for a satmmill which they will establish at that place next spring.

47 and 48 Carleton Chambers,
OTTAWA, CAK.
Long Fistance Pbone 1791.
mill and hydraulic encineer
PULP MILLS AND WATER POWER
ESTIMATEG, PLANG, GUPERVISION AND CONTRATTG
specialties.-Paper, Palp and Sulphite Fibre zills, Elctric Plants, Surveys and Improvements of Water Power.

...BUCKEYE SAW M'F'G. CO...
ManOpactoreks op
High-Grade Saws
Quick and careful work on Repaiting. All kinds of Mill supplics
REYNOLDS BROS., Propritors 267 N . Water Strect, COLUmBUS, OHIO.

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## Penstock

and Wheel Work at Chicoutimi, Que.

In Process<br>of<br>Completion.

These Wheels are now Ruming under a Head of 70 feet at this place.


Our Catalog No. 200 gives Tables, Photos and Interesting Details of our Wheels, and will be sent free on request.
We handle large Penstock work, and will be glad to name price on specification. We are now building an 88 foot Penstock of $1 / 2$ inch plate a mile and a quarter long, at Niagara Falls.

## THE NEWS

-Smith Bros., Limited, have completed a new saw mill at bliwville, N..
-J. B. Coatoniniontalling veener mathinery in his sat mill at Dutton, Ont.
-II. Byrnes, lumber deater, Wimipeg, has bern nuccecded by Byrnesis Cuddy.
-Keenan Bros. have installed new boilers, in theor saw mill at Owen Sound, Ont.
--W. H. Atkons, lumber dealer, Deloraine, Man., has sold out io J. II. Locekhead.
-Cromuell \& Mchordy lave established a lumber businewat Lake Dupert, Quebec.
-The salw mill of Kastmer \& Company at Sebring ville. Ont., has been sold to E., D. Jacob.

Mallog \& Bryans hate matalled an electrie light phant in their mill at Ilatiburton, Unt.

It is the intention of M. T. Fiynn to buld a new saw mill at Mortier Bay, N.S., next spring.
-The breckenridge-lund Lumber A Coal Company has been incerporated at Lacombe, N.W.T.
-The Mowe Park l.umber Company, of A:oose park, Que., hat obtained at charter of incorporation.
-The lumber irmof Magee is Gregory, liutinn, N.W.T., hian been dissolved, J. A. Gregory cominuing.
-Mohr A Ryan, lumber manufacturers, killaloe Station, Ont., have been succeeded by Mohr \& Comp:any.
-The Surrey Shingle Manufacturing Compan, of Surver, 13 C., has been incorgorated, with a c pital of S上5.000
-The satw mill of Mifred Dickic at Lewer Stewnace, N. S., coll 8,500,000 feet of lumber during the prast asom.
-The Scoll lumber Cumpany, of Frederictor, N.R., hatedecided t., build a large shangle mill in connection with the Victoria mill.
-It is made that W. S. Dwitell, of Minneapolis, has decided to build a large saw nill at Edmonton, N.W.T., al a cont of about Stoo, woo.

The lirguhars Mills, limited, Vancouser, B.C., has made application to change the name to the Vancenver lumber Company, Limited.
-ciorge iome, sah and door manufacture, , Sherbrooke. Que., intends building a new factory to meet the requiremerts ot his growing business.
-J. © T. Chathon have re-opened their planing mill at Norlh Tonawanda, N. Y., conducting a general curiom buiness and dressing their oun lumber.
-The Goderich Lumber Company have their new mill at Stokes Bay nearly completed and will commence satwing operations carly in the new year.

It what that ciardner Bros., of Walkerville, Ont., will erect a senecer mull at Bruce Alines, in which vicinity there is a large amsumt of hardwood timber.
-The Savanne Lumber Combany have decided to discobsmue operations at Savanac, Ont. Their mill will be sold and : new nill erected on Steep Rock Lake.
-S. O. Church \& Bru.. of Sand Point, ©Ont., have decided to huild a cooperage stock mill at Galetta. The machinery will be installed under the direction of Alfred Bloxam.
-The Suulh Kiver Lumber Company, of South River, Ont, have elected the following officers: President, Geurge Thomson; vice-president and secretarytreasurer, W. J. Ard; manager, R. Cook. The compatny are remodelling their mill.
-Murray \& Gregory, Linited, have been organized at St. John, N.B outake over the business of Murcay \& Giregory. W. H. Murray is president and J. Fraser Gregory secretary of the new company.
-The William Riclards Company have purchased the Morrivon property about two miles above Chatham, N.B., from Samuel Lowther, of Belfast, Ireland. It is r-obable that the new owners will rebuild the mill.
-P. G. Hanson and G. K. Greenlaw have recently purchaved R. B. Hanson's mill at Bocabee, N.B., and purpose operaling it for the manufacture of box shooks. A numbiner of improvements will be made to the mill.
-The East Kootenay Lumber Company have built a new saw mill at Ryan, on the Moyic river, in British Colunbia. It is a splendid plant and las a ten-hour capacity of 45,000 teet of lumber and eight cars of ties.
-The Carney Lumber Company, which recently purchased $200,000,000$ feet of white pine timber on the Spnnish River, will establish headquarters at Massey, Ont. It is the intention to remove their mill from Witbeck, Wis., to Massey nexi year.
-The Canada Handle Company, Limited, has been incorporated with a capital of $\$ 90,000$ and head office at Hull. Qut. It is proposed to manufacture a full line of wooden handles. The promoters include C. Jones, of lirnckville, zend D. F. Jones, of Gananoque."
-The Crown Lumber Company has been incorpor. ated at Woudrock, Ont., with a capital of $\$_{40,000}$, to manufactur. wooden bent goods. Those interested include H. Y.tes; of Bramlord, J. R. Duffus, of Thamsmatile, and B. W. Yates and W. C. Duffus, of Detroit.
-The C.Beck Manulacturing Company, of Penetanguivhene, Ont., have issued a writ against the Ontario Lumber Comp any, claiminy $\$ 2,26$, as damages for lovs sastained, they allege, as a result of the negligence of the latter's employces in allowing their drives of logs to get mixed.
-N. N. Wright has disposed of his interest in the Jumber firm ol N. N. Wright \& Company to his partners, Ralph Loveland and H. P. Siene, and the business at Cutler, Ont., will hereafter be conducted under the firm name of Loveland \& Stone. Mr. Wright will return to Saginaw.
-A writ has been issued by Peier Ryan. f Toronto. agannst Patrick MeDermott, of South River. for the specific performance of an agrecment under which it is claimed the defendant undertook to purchase from the
plaintiff timber berths No. 43 and 51 in the township of Cox and Waldie.
-J. A. Mckenney, who was lormerly associated with J. A. MeBurney in the lumber business at Bufluto, has formed a partnership with Strong, \& Mecklay, of Philadelphia, under the firm name of Strong, Meckisy \& MeKenaey. The head office will be at Philadelphia, but a yard will be retained at Buffalo.
-The Rathbun Company, of Deseronto, Ont., has been called upon to pay taxes upon logs cut in Framh. lin township, Muskoka, which were assessed for school purpuses. The company appealed to the Court of Revision and the assessment was reduced, but the district judue reversed the judgment and upheld the original assessment. The matter will be taken to the High Court.
-The Canadian Timber \& Saw Mills Compan, Limited, an English corporation, have given a contrail to D. McArthur \& Company to crect a large saw mill at Trout Lake, in the Lardeau district of British Col umba. The mill will have a capacity of 60,000 feet per day. The company will install an electric light plant and will light not only its own works but the town of Trout Lake as well. J. B. Henderson, formerly of Grand Forks, is manager of the new company.
-Alexander B. Allan, of Allan, White \& Company, Glasgow, Scotland, a large firm manufacturing steel wire rope and cables, spent some time in British Col. umbia recently examining into the requirements of the lumber trade. The rapid replacement of horses by donkey engines in conducting the logging industry in that province has made a large demand for steel wire cable, and some brands have not been salisfactory. Mr. Allan is the first representative of an Old Country manufacturing firm to get on the ground and see for himself the requirements of the trade.
-Thomas Southworth, Superintendent of Forestry and Colonization, returned recently from an inspection of the forest reserve situated in Frontenac and Addington counties. Buffalo capitalists have applicd for a patent for 100 acres as a mining claim, the land lying within the limit of the reserve. The idea of setting apart his and other reserves was to exclude all settiement, out the presence of mineral depesits of value may render some modifications of the regulations neecssary. Present regulations leave it optional with the Governmeat to decide whether miners' applications for lots within the limits of forest reserves will be re. cugnized or not.
-The saw mill which the Red Deer Lumber Company are establishing at Red Deer Lake, in the Saskatchewan district, will, it is said, have a greater capacity than any other mill in the North.West. The equipment will include two band saws and all the latest improved applianecs, such as stcam niggers, live rolls, lumber transfers ind conveyors, etc. The power plant will zonsist of a 400 horse power engine and a battery or four boiters. ihe sawing machincry was supplied by the Waterous Company, of Braniford, Ont., and the power plant by the Diamond Iron Works Cumpany, of Winnipeg. The company will manufacturc spruce iimber alinost exciusively.

## CRAIG MINE CRYSTAL CORUNDUM WHEELS



# Our Pure Crystal Corundum Saw Gummers have: no equal for their rapid, cool, catting properties. 

Read the following from Bullictin 180 of the Uoiled States Geological Survey, which says:
"Olten a distinction is made between emery' and corundum, many persons not recognizing emery as a variety of corundum

Emery is a mechanical admixture of corunduna and magnetite or hematise. It is, of course, the presence of corundum in the emery that kives to it its abrasive qualitics and makes it of commerci, vatue, and the abrastue efficiency of emeries variey according to the percent age of corundum they contan.

Fmery 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 Lanadians for Canadians.

## NEW CROWN TIMBER AGENTS.

The activity in lumbering operations and the frowth of settlement throughout New Ontario las called for the appointment of addilional Crown timber agents. The department has Necided to divide the Algoma agency and appoint two agents for this territory, which was formerly in charge of the late P. C. Campbell, of Sault Ste. Marie. Mr. Joseph Maughan has been appointed timber agent for the western division of Aigoma district, with headquarters at Sault Ste. Marie, while Mr. T. G. Wigg, of Thessalon, has been given charge of the new district of Thessalon. Both were officials under Mr. Campbell. The Teminkaming district will be under the superintendence of Mr. Edivard Lloyd, whose headquarters will be at New Liskeard. Mr. Peter W. Christie
becomes timber agent at Owen Sound.
Mr. Joseph Maughan has had some experience as a lumberman, in addition to a training in the woods. His irst venture wats in the cedar business, operating on the Bruce peninsula and :Ianitoulin island. After eight years he decided to discontinue business, as in those days, the early eighties, cedar was so plentiful and the inspection in Chicago, Milwaukee and elsewhere was so severe that it was simply impossible to make money. In later years he was employed by the late Edmund Hall, of Detroit, Eddy Bros., of Bay City, and the Cutler \& Savage Lumber Company, of Grand Rapids, Mich. His duties were chiefly those of a culler. Two years ago he was appointed wood ranger by the Ontario Government. During his twenty-one years' experience in Algoma
he has travelled the shore of Georgian Bay, Lake Huron, and through to Michipicoton on foot with nothing but a blazed line or Indian trial for a guide.

The Dyment-Butterfield Company, of Barrie, Ont., mend building a saw mill at Tou Creek.
The annual meetugg of the Indianat Hardwood Lumbermen's Association will be held on Tuesday, January 19. 1904, at the Grand It tel, Indianapolis.

A man named Sbaw, employed in Craig \& Austin's logging camp in Dyart Township. Was killed by a talling limb from a tree which the was cutting.
The advertisement has advantage over most agents in that it does work for the future and in the future. If the advertiser does his part well, the men it britgss in him may be held indefintely. The advertisement will not do it ath, but it will do much more than half of the work.--Printer: Ink.

## NEW MONTREAL BRANCH.

In order to better serve the continually increasing denands for its comprehensive line of power transmission machinery and to enable it to continue the same efficient service that has always been a notewothy characteristic of the company, the Dodge Manufacturing Company of Toronto, Limited, will on Jannary is open extensive and commodious quarters at 419 . St. James Strect, Montreal. This will he pleasing news to the many users of transmission machinery in and around Montreal and the east and is a step that keeps pace with the fast development of Canadian manufacturing. A competent staft will be in charge of the new branch and will spare no effiorts to increase the efficiency of the service of the company both for users and the trade.

## ALWAYS SOMETHING NEW.

The lumber manufacturer or logging operator who does not read carefully his trade journal is sure to miss many ideas which would be found useful to him in his business. The pages of the Casida Lumberman contain the advertisements of the most wide-awake manufacturers of saw-mill and wood - working machinery, logging appliances, etc. Every month sume new and improved appliance is placed on the market. Keep up with the procession by investigating the adaptability of these appliances to your own particular case, and when the opportunity is presented tell the advertiser how interested you are in his announcements in The Lumberman.

Messrs. R. E. Jamesod \& Co., of Bannockburn, Hastings County, Ont., have dispesed of their limits to the Rathbun Co. and are closing out their business. For the past three years they ha"c operaled extensive saw and planing mills. Mr. Jamesun goes to Trenton to reside and Mr. Lockart seturns to his old home at Scaforth, Ont. Mr. Jameson has purchased a large slook of logs from the Anglc-American Iron Co. and will manulicture them into lumber on the Central Ontario Railway.
A. AStrancillse burninc siandos䬺 STEEL STAMPS ROESS

We cill your special attention to
STEEL STAMPS
Oar product is frat-class in every pertizular, and pricesare zaldsactory.
HABIHTON STAHP \& STBHCLL HORKS.
. Hamlitonjone.
H. Barnard, Prop.

## 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."

## Snow Ploughs

## TRIMMERS

If the Board does not reach the quadrant the Sasw stays down and trims, see cut. To cut off more than two feet. cut eno cut oft more than two fect. bad ends, etc., pull the cord, see dotted
lines. The whole Board can be cut into two foot lengths or trimmed in any maniwo foot lengths or trimmed in any manner. The Saw frame is balanced, the Arbor pulleys are 8 in. $\times 8$ in. We build several styles of Trimmers, also all kindso
Saw and Shingle Mill Machinery
Our "Buss" Shangle Machine is second to none in Canada. Our sales will prove it. We make Saw Jointers and Knife Jointers, also lacking Boxes. Senà for Cataloguc.
 CLARK \& DEMILL


## FAST CUTTING.

The following communication, which is self explanatory, is found in the Bay City Tribune:
"Collingwood, Ont., October 17.-In your issue of October 14 we notice a record breaker of E. E. Bradley, Elizabethton, Tenn., in which he cits 53,366 feet a day for seven days with a Garland band mill.
"The following will give our cut for five days of 10 hours. The manager, T. J. McClellan, of Collingwood (formerly of Bay City), now running the two band mills for the Charlton Saw Mill Company, cut with a Garland mill September 29, 30, October 1, 2, and 3, 2,928 logs, producing 334,295 feet lumber, or an average of 585 logs and 66,859 feet of lumber per day. The right-hand mill is a Garland, on which the above cut was made with Simond saws, gauge 14, nine-foot wheel, and 10 -inch steam feed. The left-hand mill is an Allis, but the mandrel was broken, hence our getting the cut of one saw.
"The logs are white and red pine, cut as follows: The white pine No. 2 shop and better
cut five-eighth and ten-quarter; Nos. 1 and 2 common and 10 and 12 -inch cut five-quarter, excepting last piece on block, which is left two inches. Balance of logs cut four-quarter, with the exception of small logs, which are cu. $4 \times 4$ -5-6.7 for the Steam Heating Company. Red pine cut 50 per cent. four and eight-quarter; balance three and 4×7-9-11.
"W. J. Gabott, hand filer, Joseph W. Smith, sawyer (formerly of Bay City), J. McKinnon, setter, and A. Mcintyre, dogger, made the above cut and we know the same to be practically correct, for it was measured over the trimmer by Henry Hartingh, formerly of Bay City.

> The Cahrlton Saw Mill Company.

## THE LUMBER UNDERWRITERS.

The regular annual meeting of the Lumber Underwriters at Mutual Lloyds was held a. the office of the company at 66 Broadway, New York Cily, on Monday December jth. The following Underwriters were present:
Messrs. W. C. Laidlaw, of Toronto, Ont.; Chas. M. Rells and Robert C. Lippincolt, of Philadelphia, Pa.;
C. H. Prescott, jr., of Cleveland, Ohio ; Alfred Haines, Geo. B. Montgomery, Horace Taylor and M. S. Tre maine, of Buffalo, N.Y.; Pendennis White, of North Tonavanda, N. Y.; Fiank C. Rice, of Springfield, Masy; and J. J. McKelvey, E. F. Perry and F. IV: Matlocks, of New York.
The fact was brought torth that the company, in adddition to carrying risks throughout the United Sintes, lias developed considerable business in Canada, makiang a uniform reduction in premium rates of 20 per cent. off the prevailing tariff rates. Another advantage of the policy of the Lumber Underwnivera is the liberal method of short rate cancellation, the company using the standard short rate scale, which is more favorable to the assured than the scale adopted by the Canadian companies.
Since the Lumber Underwriters dimit their business exclusively to lumber and woodworking risks, they are able to handle this one class of risks becter than a company doing a general business, and although all insurance is accepted at the rate reduction above named, the business has proven extremely profitable, which is a source of congratulation to the Underwriters.

The Montreal Rox Company has been incorporated, with a capital of $\$ 100,000$. The company will take over the business carricd on in Montreal by Adam Beck and will manufacture cigar and tobatco boxes, etc.


The Passing of Back Woods Methods

## UP-TO-DATE LUMBER DRYING

Means the use of the

## Morton Moist Air Down

Draft Dry Kiln we ve
Not cheap, yet inexpensive.
It is being adopted by all experienced lumber driers. It will pay you to investigate. Catalogub Free.

The A. H. Andrews $\mathrm{C}_{0}$.
174-176 Wabash Ave.
cimicago, ill.
H. A. johnson, Western Salea Agent

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HERMAN $\boldsymbol{H}$. HETTLER LUMBER GOMPANY
1324 Elston Avenue, CHICAGO, ILL., U. S. A.

Northern Office : MIDLAND, ONT.<br>White Pine<br>Red Pine<br>Hemlock, Lath, Etc.<br>All Kinds of Lumber Lath, Shingles, Etc. ous specamtr<br>Oak and Maple Flooring<br>\section*{Long and Short Leaf Yellow Pine Timbers Sills, Flooring, Etc.}

# THE LUMBER MUTUAL FIRE INSURANGE GOMPANY of bassoou mass DIVIDEND TO POLICY HOLDERS <br> Dividends Paid to Date 30\% <br> Losses Paid to Date \$163,472.27 

MAIL YOUR EXPIRING POLICIES WITH ORDER.

NOVA SCOTIA LUMBERMBN ORGANIZE.
The Board of Trado ol Annapolis Royal, N.S., passed a resolution extending an invitation to the timber owners of Western Nova Scotia to meet in couvention In that town to suggest a workable law for the prevennon of forest fires and the preservition of timber lands. Acting upon the suggestion, a meeting was held on December 3rd, at which the Lumbermen's Assaciation of Western Nova Scotia was organized, and the following officers elected : President, F. C. Whitman, Annaprits; secretary, A. 1). Mills, Annapolis. The membership includes Dickic \& KcGrath, of Tusket; The Dqwson Lumber Company, of Bridgewater; Pickels \& Mills, of Annapolis; Frank Davison, of Bridgewater ; 11. T. Warner, of Dighy ; A. W. Eakins, of Yarmouth MeNeal Bros. \& Howe, and Thomas F. Whitman. The conference lasted two days and there was a tho:ough discussion of the subject of forest preservation, with
special reference to the prevention of furest fires. The main feature was the unanimity of all the speakers as to the wisdom and necessity of adopting some practical system. It is proposed to present a memorial on the subject to the Nova Scotia Legislature.

FINED FOR REMOVING STOP LOGS.
Police Magistrate Dumple, of Peterborough, has given judgment in the case of King vis. Wasson. Wasson, a mill owner at Warsaw, was charged with illegally removing stop logs from a Gose nment dan at the head of the Indian river and at its exit from Sony lake. Wasson, it appears, was short of water to run his mill and to increase the flow removed stup lugs against the will of the man in charge of the dan. The logy were replaced, but Mr. Wasson took a saw and cut out a stop log, and, arming himself with a gun for a part of two dayy, enforced non-interference with the stop logs by the official custodian. The judgment declares Mr. Wasson guilty of wilfully doing an injury to
a public work, and tho smallest penally provided for the offence, $\$ 100$ and costs, was imposed.

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RAILS Howin
YARD LOCOMOTIVES
John J. Gartshore $8_{3}$ Front St. West,
Opposite Quefn's Hetel, ) Toronto
OILS
Manufiscturers High-grade Cylinder, Machine and Sawmill Oils.

## Calypsol Grease

for Sawnill Purposea a Specialty. Our products are made from finest Pennsylvania slocks.
We soltcit vour cor espondence.
st. John st.t. Commercial Offices and wria
Offices and Works:
Hamburg, Germany
Oil Co.
Newark, N. J.
Hamilton, Ont. Chicago, Ill.


Five stees, stationary and Portable. Has the Pive sizes, stationary and Portabic. Ras me scienlific princip'es. Quickly taken upnad reset. Eapy ranning. Feed changed inan instant white Rolng through the log, from to 10 ch to 5 inch.
No feed belts to slip and wear out. Sold on its merits. Also Portable Eagines Write for particulara to
ENTERPRISE MFG. COMPANY
COLUBIANA, OHIO.
arention the Canada iotnibrman.

## THE <br> METALIII Roofing COMDANY Lmites: CORRUGATED <br>  <br> IRON <br> $\max =$

## Good Reasons Why OUR <br> CORRUGATED IRON <br> Is preferred by thase whio knows.

## $\underline{\square}$

We use only best Apollo or English sheets.

The corrugations are pressed one at a time-not rolledfitting perfectly, both at ends and sides without waste.
No scale, pin holes or other defects are ever found in our goods.

The galvanized sheets are coated on both sides with all the galvanizing material that can adhere to them.
The painted sheets are coated on both sides with SherwinWilliams best quality paint.
We furnish any size or gauge required-either curved or straight.

If you desire durable quality and certain economical satisfaction, send us your specifications or write for further information.

6 THE REEVES

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

## Reeves Pilley Manulacturing Gompany, Limited

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get our prick list and discounts
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Direct Acting Stcam Foed, with prices and terms on application.

## SHERMAN FLOORING MACHINES-PATENTED

 SIDE BORING MACHINES
For alfachment to any mateher to bore tlooring run face up or lace down.
FAGE BORING MACHINES Used as an attachment 10 any flcoring machine to bore jointed flooring.

AND MATCHERS
For end matching flooring strips. Our Machlues are the best in the market for Our Machis.
Huguire about them. Write for circular whth list of users.
W. S. Shepman 60.

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