

CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS AND MILLERS' GAZETTE

VOLUME XIII.
NUMBER 3.

TORONTO, ONT., MARCH, 1892

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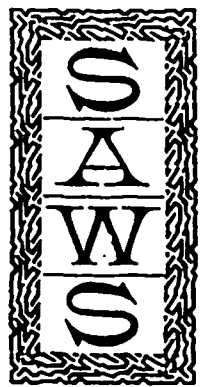
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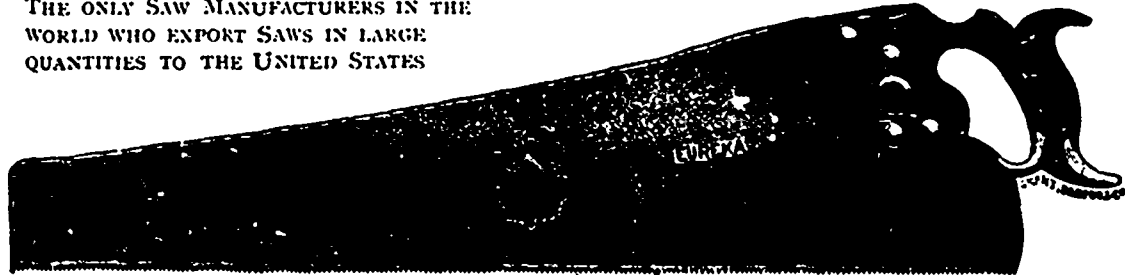
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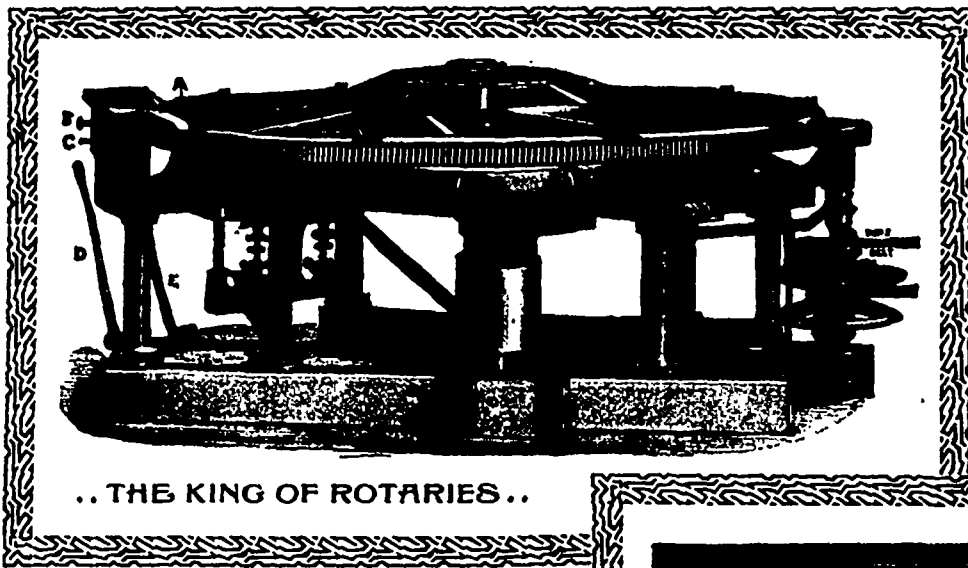
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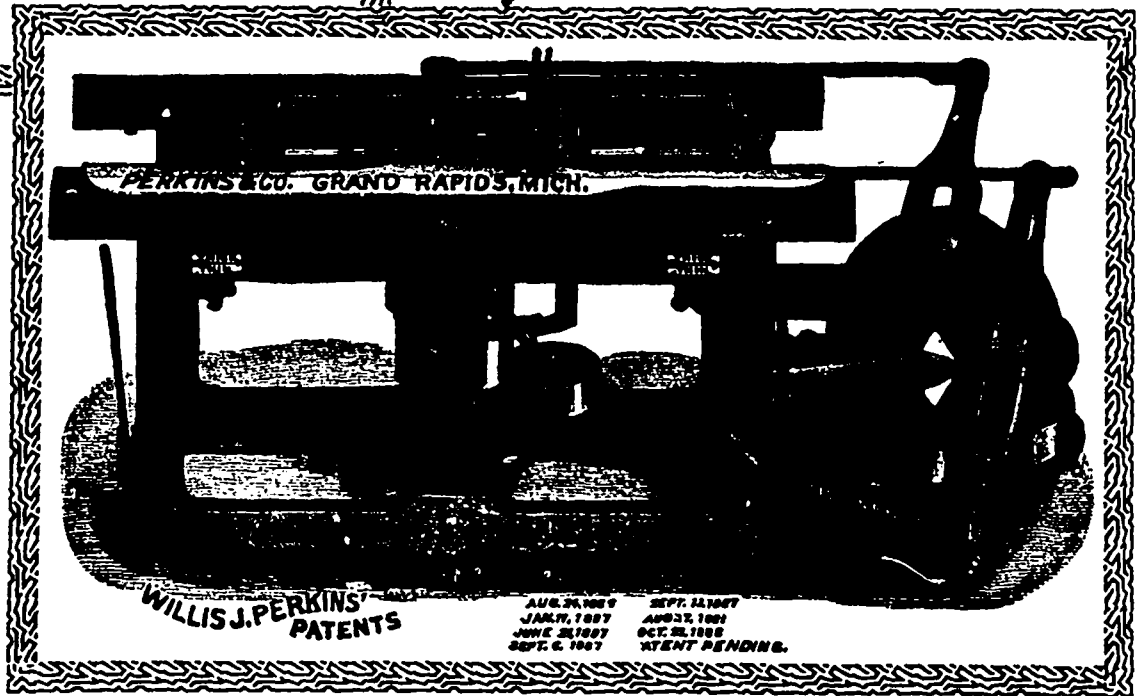
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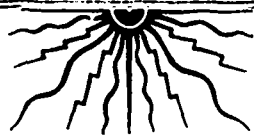
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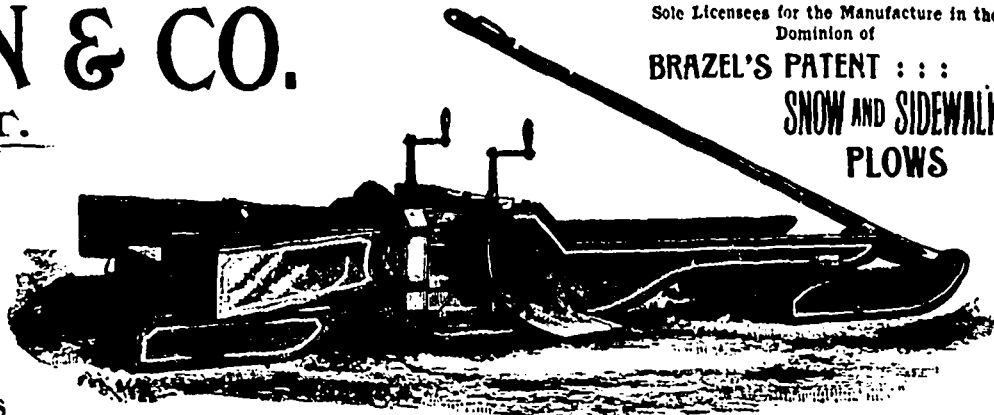
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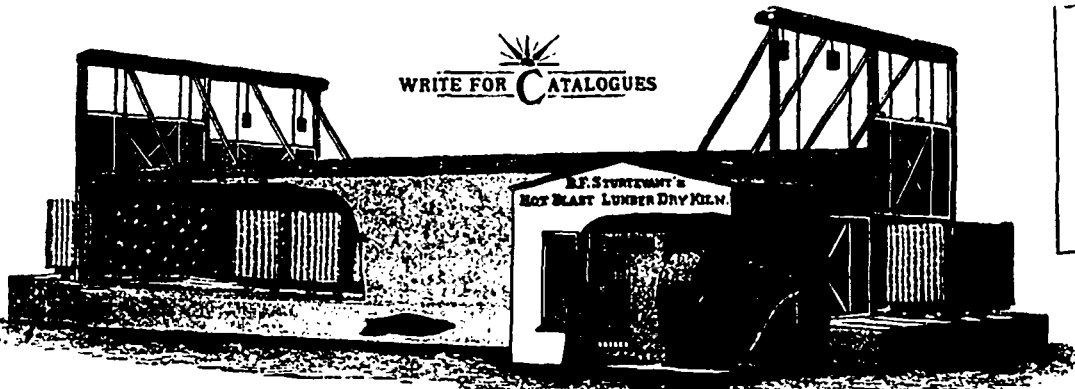
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THE CANADA LUMBERMAN

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CHARACTER SKETCH.

MR. JAMES MACLAREN

CANADA'S MILLIONAIRE LUMBERMAN—RECENTLY DECEASED.

"It is not luck but labor that makes men."

THE German poet Goethe was wont to say: "An honest and vigorous will could make itself a path and employ its activities to advantage under any form of society." A study of the life and work of the late Mr. James Maclaren, whose demise occurred at his home in Buckingham, Que., on Feb. 10, is an illustration of this fact from Canadian history. In his death the lumber trade loses one of the best known and most extensive operators, and the country a leading and enterprising business man. The foremost position he held in a large number of lumber and mining concerns in various parts of the Dominion would seem to show that he did not deem it wise "to carry all his eggs in one basket."

My ventures are not in one bottom trusted,
Nor of one place; nor is my whole estate
Upon the fortunes of this present year.

The deceased was born near Glasgow, Scotland, in 1818, and was 74 years of age when he died. He came to Canada with his parents when quite young. His father, David Maclaren, settled on a farm in the township of Torbolton, Carleton county, where he continued to reside until within a short time of his death.

Mr. James Maclaren spent his early years on the farm, entering into business later as a country store-keeper with his brother John, now dead, in the village of Peche.

The Gatineau country was then finely timbered with pine and Mr. Maclaren went largely into the purchase of logs and timber, which he sold to Messrs. Currier & Dickinson, who at that time owned the New Edinburgh mills. Hon. R. W. Scott had also an interest in those mills. About the year 1856 Mr. Maclaren bought an interest in this firm, Messrs. Dickinson and Scott retiring. The new firm took the name of J. M. Currier & Co., the members of which were composed of Mr. Currier and Mr. Maclaren alone. This firm carried on business for a number of years, when they bought out the Buckingham mills. Since that time Mr. Maclaren gave these mills his personal supervision. These mills were first bought in company with Messrs. Sincennes & McNaughton, of Montreal, who afterwards retired, leaving Mr. Maclaren the sole owner of the mills. Later Mr. Maclaren bought out Mr. Currier, and became sole possessor of the New Edinburgh mills.

Mr. Maclaren took a great interest in the formation of the Bank of Ottawa, and was its first and only president, much of its success being due to his energies. He was a member of the firm of W. McClymont & Co., of New Edinburgh; the Canada Lumber Co., of Carleton Place; vice-president from its commencement of the Shepherd-Morse Lumber Co., formerly of Burlington, but now of Boston; president of the Maclaren-Ross Lumber Co., of New Westminster, B.C.; president of the North Pacific Lumber Co., of Port Moody, B.C., and was largely interested in mining operations in Ottawa and Hastings counties, and also held interests in sugar, salt and silver industries in Western Ontario.

He was of a very robust constitution, indomitable energy, shrewd and sharp in all business transactions and of sterling integrity. His first serious illness was last winter, when he was attacked with congestion of the lungs. Recovering somewhat, he visited the Isle of Wight, and returned home last spring slightly improved, but far from being well. He attended to business during the summer but at the beginning of the present winter he was taken with a complication of diseases which, added to the weak state of his lungs, made him an invalid with but little hope of his ultimate recovery.

He leaves, beside his widow, five sons, David, John, Alexander, James and Albert, and two daughters, Mrs.

Alloway, of Winnipeg, and Mrs. Raphael, of Ottawa. Rev. Dr. Maclaren, professor in Knox College, and Rev. Alexander Maclaren, a well-known Presbyterian minister, are brothers of the deceased.

Mr. Maclaren was estimated to be worth from five to six million dollars, but the will being under Quebec law does not state as it would in Ontario the value of his property. Deceased drew up his own will, which is in his handwriting. The great bulk of his fortune is left to his widow and two eldest sons, David and Alexander, these three being named executors. Mrs. Maclaren is also left the homestead, furniture, horses and carriages. They are enjoined to continue the different milling, lumbering and other enterprises for six years longer, when they are to divide the estate, one-fourth each to David and Alexander and one-sixth to each of three younger sons. To his widow he leaves \$6,000 a year during her lifetime or an option of \$70,000 shares of the Bank of Ottawa, of which deceased was president. To his daughter, Mrs. Thomas Raphael, of Ottawa, he



THE LATE JAMES MACLAREN.

leaves \$70,000 to be invested for her benefit and that of her children only, even the annual interest on this sum to be invested by the executors and not paid over if the executors think proper. Mrs. W. F. Alloway, of Winnipeg, another daughter, receives \$50,000, and her husband \$10,000. The two brothers, Rev. Dr. Maclaren, of Knox College, Toronto, and Rev. Alexander Maclaren, are left \$1,000 each. City Clerk Henderson, of Ottawa, an ardent disciple of Henry George, receives \$500. The wife of the testator's son David is left \$2,000, Knox College, Toronto, is bequeathed \$20,000, and the Presbyterian College of Manitoba a like sum. It is directed that the bequest to Knox College be paid within one year and be used for the purchase of books for the library. Manitoba College is to use its bequest as the authorities think best. A bequest to David Maclaren, of Fitzroy Harbor, a brother, of \$30,000, consists in the cancellation of a debt for that sum. Another debt held by a mortgage is not released by express terms; a sum of \$3,000 in cash is also left to David. The bequests to his wife are declared to be void unless she renounces all rights of dower or other matrimonial rights. The will is dated February 26, 1891, and some few changes are made by a codicil nine months later.

TIMBER LAND AS A MEANS OF INVESTMENT.

BY EDWARD JACK.

UNDER proper conditions and with proper associations, there is no better nor safer investment than that which is made in well selected timber lands. Among other conditions which should govern the intending investor in his choice are the following: character and quantity of wood, accessibility to conveyance by water and rail, preferably the former, freedom from causes tending to the occurrence of forest fires. All of these circumstances being favorable, the purchaser of timber lands has his capital invested, not in a bank, which, although paying a good rate of interest to its clients, is yet subject to all of the risks of over-speculation, as well as to fraud or mismanagement on the part of its officials.

The timber land holder is dependent for the increase of his property directly on the Creator, whose rain falls on the tree, watering its roots, while the circumambient air furnishes the chief part of its food. While funds deposited with the banker require careful watching, and the farmer's cattle constant food and attention, the tree is constantly adding to its stock of wood, and consequently to the wealth of its owner, even while he is asleep, and this without costing him the least care or thought. And thus his interest, instead of being either used up or invested in some precarious security, is monthly and annually added in the shape of increased wood. And this is not confined to a portion of his trees, but is equally divided among the whole of them, and when he comes to cut a portion of them away he is doing a very beneficial act to those which remain, since, by cutting away superfluous trees, the growth of the remainder is greatly accelerated, as by their removal an increased share of air and light, both so necessary to tree growth, is allowed to the survivors. In the cutting away of forest trees all attention should be given to this being done in a proper manner. Possibly one uninitiated in woodcraft would say: what difference can there be in allowing one man to cut timber, confining him to certain metres and bounds, while another is permitted to do so without any such restriction? The difference is this, that he whose work is unrestrained by bounds pushes his road back, often leaving valuable scattered trees close to his hauling roads; for there is a tendency among lumbermen, especially when snows are deep, to work back from their trams, even if the distance be great, as they find there a thicker growth of trees; and thus the ground, having been unequally cut over, is rendered less valuable to the subsequent worker, who will often demand a higher price.

Now, the man who is permitted to work on 100 acres only, and who is prevented by well-surveyed lines and proper overseeing, will cut this lot much better than he who has the right to cut over 1,000 acres. He will examine it more carefully to find out just where the best trees stand, and will weed out the large trees, leaving the smaller ones more room in which to grow, so that his successor, in from five to ten years, will again have good cutting in the old works. In fact, the narrowing the limits of a team's work is an excellent encouragement to a due and proper economy.

It is in general a mistake for the capitalist, unless his means be very ample, to buy timber land merely for the purpose of holding for a rise in value. The dealer in timber lands should take care before he purchases to ascertain when and how his purchase can most readily be made to pay, and he should encourage the lumberman of small means to work on such land, by aiding him to erect mills and clear streams, such money so spent to be returned to the capitalist by a slight addition to the stumpage.

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VIEWS AND INTERVIEWS.

**Sawdust
For Building.**

This is an age when science brings into use what a few years ago would have been considered the most worthless refuse. There is very little that the ragman and bone-picker rescues from the gutters and lanes of our towns and cities that may not be manufactured or used in the manufacture of things useful and serviceable. We learn of an ingenious German who believes he has perfected a means of making a profitable disposition of sawdust by which it is applied to a mechanical use, and has thus far been attended with success. An acid is mixed with the sawdust, and the whole mass moulded into blocks or any other form, resulting in a fine material for building purposes. The blocks assume extreme hardness of surface, and are practically non-combustible. The material in the moulded forms is said to be much stronger than timber in these forms, and much lighter than either iron or steel, and can be prepared cheaply.

**Pennsylvania Timber
Giving Out.**

Not only in Michigan is the supply of timber becoming exhausted, but also in Pennsylvania. W. H. Hyde, an extensive operator in that State, says: "The timber is giving out very rapidly and few mills will be running five years from now. The annual output is falling off at the rate of 20,000,000 feet each year. A. Thompson, of Ridgway, who has been getting out 5,000,000 feet each year for the past eight years, has finished his tract. The Oyster Run Mill, in Elk county, with an annual output of 4,000,000 feet, has given out, and the firm of Gillingham, Garrison & Co., of Philadelphia, which has operated for the past twelve years, is about to wind up its interests. Henry, Bayard & Co., another Philadelphia firm, is still actively at work, and is getting out a possible 20,000,000 feet annually. Their mills are all steam power, and the lumber is sent to the Philadelphia market by rail. J. Powell, another extensive operator, has shipped 3,000,000 feet yearly for the past twelve years."

**Broke
The Record.**

It is rather a difficult matter to get ahead of the nineteenth-century newspaper reporter. One is apt to know it when the "boys," who know their business, find themselves "scooped" on an important piece of news. But in this keenness for news it is the case that sometimes the reporter gets ahead of his own record—at least ahead of the facts. Here is a confession made by a reporter of a New York daily paper, who has managed to run ahead of even the dreaded forest fire. He says he was sent to New Jersey on a certain occasion to write up the forest fires. When he left his train he went to the hotel to "get his bearings." "How about your big forest fires?" he asked of the proprietor. "Forest fires," answered the other, loftily, "we haven't had any at all. What do you want to know about them for?" he added, a little inquisitively. "Oh, I'm reporter for the _____ of New York." "A reporter, eh? Why, of course. Sit down. Biggest forest fires you ever saw. Magnificent spectacle. We beat the country on forest fires. You can say that I said so. Wait a minute. John, run out and get Smith and Brown and Jones and White, so they can tell the reporter about the fires;" and the proprietor and Smith, Jones, Brown and White, broke the world's record in the next half hour for lying about forest fires.

**More Haste
The Less Speed.**

The man in the biggest hurry is not always the man who accomplishes the most. The age has no room for lazy men, though lazy men there be; the age wants its work done quickly, but it wants it done well. An observing lumberman tells how one foreman, in the keenness to get certain work done, missed the mark. "One of the men," he says, "was squaring up some fence posts upon a circular saw table. The belt on the saw arbor was so slack that the saw would not run six inches in the cut without stopping and waiting for the saw to recover its speed, and at each stop time enough was spent in waiting to make the cut the full length of the post had the belt been of proper tension. While standing by him the foreman came up and he called his attention to the belt. "Never mind, John," said he, "do the best you can; the boss is in an awful hurry for

those posts, and the customer is waiting for them, but as soon as you get through take up the belt." Now here was a clear case of mistaken economy on the part of the foreman, although an excellent man otherwise. Yet if he had reflected a moment he would have plainly seen that if he had ordered the belt taken up at once the boss would have got his posts out much sooner, besides saving considerable damage to the belt by slipping over the pulley; for there is nothing more destructive to a belt running at high speed than constant slipping. The heat generated from the friction is more destructive than the strain, so that in this case there was not only a loss in time, but a loss in the damage sustained by the belt."

**Is it
so?**

The News, of this city, quotes the North Star, of Parry Sound, in its protests against the abolition of the export duty on sawlogs. "The towns along the Georgian Bay," we are told, "are threatened with disaster. Midland has been almost ruined by the closing of her sawmills, and other towns and villages along the bay are being more or less affected by the change." This question has been discussed in these columns so much of late, and from so many various standpoints, that it seems a work of supererogation to add another line to the discussion. No one can regret more than the LUMBERMAN the effects of any policy that is going to permanently injure the lumber trade of this country. There is no questioning the fact that large quantities of logs are being cut by American firms and towed across to the United States to be manufactured there. It is equally true that our mills are doing no small share of cutting, and that the coming season in particular the mills will be kept busy. Our Little Current letter on another page tells of a busy spring ahead in that district, and an interview with a Midland millowner in the E.L. page indicates that this town has not lost all its "go." It must be admitted that it was unfortunate that the Emery Lumber Co. saw fit to close what is familiarly known as the Miscampbell mill, but the circumstances attending this step were exceptional and not general. Not a few of the statements touching this whole question, that have been given currency by the general press of the country, are a long way remote from conditions as they actually exist.

**Asphalt or
Wood?**

In this country we have laid at the door of wooden pavements not a few of the ills that flesh is heir to. Medical men, from a sanitary view, condemn the ordinary cedar block. As we have pointed out in these pages before, there is another side to this question, and the fault is not always with the material, but more frequently with the manner in which the material is handled. Who has not heard of, if they have not experienced, something of the dense fogs of the greater London? A writer in an English lumber exchange is disposed to make these an additional charge upon wooden pavements. His deductions are from observation, and he says: "I have observed that as the area of wood pavement has increased at the West End, so has the frequency of fogs, the streets so paved being a species of canal giving out moisture during the autumn and winter months. In the same way as the area of asphalt has increased in the city, so has the frequency of fogs decreased. It is an impossibility for moisture to arise from asphalt as it does from wood pavement. I give my experience of the 23rd ult. On leaving the city at four o'clock, all around the Bank and as far as asphalt extended down Queen Victoria street the atmosphere was comparatively clear, but directly the wood pavement commenced and down to Blackfriars bridge the fog was dense. From the bridge to Northumberland avenue, along the embankment, which is macadam, the fog was less dense, being, however, as bad as ever on the wood at Charing Cross, and all up Regent and Oxford streets. I have known many such instances of late years."

**What's Life
Worth?**

Is human life worth anything? The individual "I" thinks so; the aggregate "I" often acts as though there was little value there. Not a day passes, probably, without some one's life being sacrificed to the carelessness of another. We may in the keenness of the race for the almighty dollar try to laugh the matter down,

but better draw up sharp sometimes and treat the case with rather more seriousness. Take boiler explosions. The daily press are seldom without an item chronicling the death, or worse still, almost, the permanent mangle of one or more men from this cause. Where is the fault? A writer in a contemporary has been discussing the subject and his showing of it indicates that even the individual "I" may perhaps be wickedly indifferent of the same "I." Here is the way the case is put: "It is not often that a boiler goes to pieces in a first-class mill, for the reason that good boilers are placed in them, and competent men employed to take care of them. Boiler insurance also does much to reduce the risk of explosions. It is the 'Jim Crow' mill that is dangerous; the little mill that finds a 'set' first here and then there. Because a man has a desire to manufacture and sell lumber for a living it does not follow that he is a mechanic, or that he is even possessed with common sense when it comes to operating a sawmill. He has but little money maybe, and he wants that little to go as far as possible. He visits some second-hand dealer in whose stock there is an old boiler which should be labelled, 'Short route to eternity;' it is offered to him cheap, and he buys it. Such a boiler is about as dangerous as dynamite, and sooner or later performs its deadly work. In other lines there is cheap machinery which will do fairly good work, and which does not hazard the lives of the men employed around it. For a comparatively small amount of money it is possible to buy a planer or a sawmill which will answer the needs of the mill man whose ambition is to bore with a small augur, but any man is either criminally ignorant or negligent who will put in a low grade boiler. There ought to be some way to protect these men against themselves, but there is not. Human life is very cheap, and if an old rotten or poorly made boiler blows a half-dozen men to kingdom come, that ends it. In the great majority of cases not even an investigation is made, and if the proprietor comes out of it alive he is at perfect liberty to reset the death trap."

**Quality,
Not Quantity.**

Prof. Drummond, in one of those clever little hand-books which have found such a large constituency of readers, tells us that it is quality, not quantity, that this world most needs. His application is to things moral rather than material, but how true is this in the work of the workman in any of the callings of life. An employer of labor has illustrated the case in this way, and what he has said is, at least, true in spots: "I have had a great many men in my employ, but I have never had one yet that amounted to anything who was not independent. No employe can be independent unless he is conscious of his honesty. He may not report for duty till ten o'clock in the morning, but he works for business, while the man who commences promptly at seven and quits at the stroke of six may not be worth his bread and butter. We cannot measure the value of any man's services by the time he puts in. The poor man may work fourteen hours a day and earn much less than the good man earns in eight hours. It is the ability to accomplish results, not the time employed, that counts nowadays." In other words, it is quality that tells. Quality may be made to have reference to the machine as well as the man. Take this with its practical application to the lumber trade from a mechanical exchange: "The best way to make the manufacture of lumber profitable is to economize in every department, from the stump to delivery. The price of lumber is no higher now than it was twenty years ago, but the cost of manufacturing hardwoods has been reduced within ten years fully one-half. This has been effected mainly by the improvements made in machinery and by greater skill on the part of all hands employed in the business, from the mill-owner down. There is no economy in using poor machinery. True enough, there are many men making a living out of veritable "rattletraps" of sawmills, but it is not a 'greasy' living, and in many instances the employes are relatives and dependents, and the market a local, an isolated one. To compete successfully in the general market requires the best of machinery and skilled employes. A sawyer and filer who can make a mill cut 30,000 feet per day of perfect lumber are worth four times as much as those who can make the same mill and hands cut only 20,000 feet."

A NEW STEEL BAND MILL.

INTEREST in the band mill grows with lumbermen. The engraving on this page of their "New No. 2 steel Band Mill," manufactured by the Waterous Engine Works Co., of Brantford, Ont., illustrates a mill modelled on radically different lines to the ordinary band sawmill; one certainly foreign from the previously conceived ideas of what a band sawmill ought to be.

Many of the standard mills have but one post supporting the upper wheel, others have two and an outer arm passing between the wheels and reaching to the upper shaft, making a third bearing under the shaft. In the Waterous mill the necessary rigidity is obtained by the six steel columns connecting the very heavy lower and upper cast plates. These make a much more rigid frame and give a much greater bearing to stand the strain than the single or double post mills.

In addition to this, doing away with the outer arm, we are enabled to bring the wheels fully eighteen inches nearer together. This permits the sawing to be done much closer to the upper wheel. This is a most important point. Any one knows from experience that a belt running from one pulley to another can be shoved on or off the receiving pulley while in motion quite readily, while at the driving pulley hardly any pressure that can be put upon it will disturb it. The effect is the same in the band saw, and the aim of all band saw builders is to have the cutting done as near the upper wheel as possible.

Another important point is the triangular frame supporting the upper shaft and wheel. This upper wheel has to be moved up and down as the tension is applied to the saw; with narrow bearings it is apt to bind with the strain that the saw puts upon the outer end of the shaft, and in this way rises up unevenly, or when the tension is being taken up by the weight, the binding may prevent a proper operation of the weight. With the triangular frame we have what is equal to a four foot bearing on the front centre post, making it impossible for any binding to take place, in adjusting the tension of the saw either by screw or weight.

The two boxes of the upper shaft are connected by a very heavy casting, making it impossible to get them out of line, and this casting is hinged to the triangular frame, and so arranged that the effect of the tension weight is applied directly to it and adjusts the tension without having to affect the triangular frame. This is a great improvement on the usual method of applying the tension. As will be seen from the illustration, the guide is very stiff and has very convenient adjustments. Its weight is counter-balanced and it is raised and lowered by friction, readily applied by the sawyer. The bearings for the shafts are eighteen inches long, and of ample diameter; the lower bearings are adjustable and the upper bearings are also adjustable by wheel and screw.

The effect secured by the outer arm and third bearing in ordinary mills is secured in this mill by running the bearing to the centre of the wheel, coming out the hub so as to overlap the bearing, thus bringing the centre strain of the saw on the bearing instead of on the unsupported shaft. The lower wheel is of ample weight and the upper wheel is of very strong and light design, the proportion being arranged to a nicety to prevent any possibility of the carrying over of the upper wheel. The shaft and bearings of the lower wheel are above the sole plate in plain sight and of easy access, unlike the majority of mills where the shaft is hung under the sole plate and difficult of access.

In addition to the six steel columns the mill is further strongly braced as shown in illustration. The lower wheel is protected with a cast iron covering, with a chute for discharging any accumulated dust or bark, while the saw runs through a cast iron lower guide, extending down past the carriage line, protected thoroughly with rawhide guides, which steady the saw and prevent the

sawdust passing down and thus getting between the saw and the lower wheel.

The wheels of this (the No. 2 mill) are eight feet in diameter, and are made to take ten and twelve inch blades, the saws being much shorter than usual for that sized wheel, namely, forty-three feet.

The Waterous Co. have one of these mills erected within a short distance of Brantford, where it can be shown in practical operation at any time cutting hardwood for the American market.

So much importance is to be attached to the character of the machinery used in manufacturing that we are of the opinion that the manufacturer is always ready to welcome any suggestion pointing towards improvement and greater efficiency in his particular line of work. Lumbermen, by their enterprise in the past, have

cently been taken in the United States. The price of mahogany in London ranges from \$110 to \$175 per thousand superficial feet, and cedar from \$90 to \$180. Rosewood, zebra and fustic are cut in short lengths and shipped as ballast. Rosewood brings from \$25 to \$40, and fustic \$30 to \$40. The logs are squared before shipment. The timber on government land is free to any one who proves to the Administrator of Customs that he has ample means to transport it to market, a great deal having been lost before the adoption of this rule through the timber being left to decay after being felled. It can be cut at any time during the year, but the best season is during the rainy months, so that the logs may be ready by the beginning of the dry season, on March 1st. The camp is generally composed of from twenty to fifty men, who are divided into companies, each having a captain. A foreman, in charge of the whole camp, keeps accounts of logs cut and other details. One man, called the hunter, looks up the trees fit to be cut and reports to the foreman, who examines each one. Care is taken not to fell any trees less than eight feet in circumference. The cutting is done by piece-work, two trees from eight feet to twelve feet being a day's work for one man, and a tree twenty-five feet in circumference being regarded as a day's work for four men.

Over 300 trees are sometimes felled in a camp in a single season. The carriage of lengths to the river banks is done principally at night. A foreman's wages will vary from \$60 to \$100 a month, with occasional allowance of an extra servant; first captain \$18 to \$20 a month, with rations; and choppers \$10 to \$14 a month, with rations. The export duties on mahogany and cedar are \$8 per 1,000 superficial feet.

THEY BOUGHT BURNING HOUSES.

ONE of the strangest businesses in Ancient Rome is mentioned by Juvenal in his Satires. It consisted of buying houses on fire. The speculator hurried to the scenes attended by slaves carrying bags of money, and others carrying tools, judged the chances of salvage, and made a bid to the distracted houseowner, who was glad to accept anything as a rule. The bargain struck in all haste, this earliest of fire-assurers set his slaves to work and secured what he could. Sometimes he even put out the flames, and so made a coup. It was a business for capitalists, but the poorest who speculated in a small way could hardly lose if he had presence of mind enough to grasp the chances. Thus Cato the Elder, and above all, Crassus, laid the foundation of their great wealth. The latter had a great passion for such gambling. He gradually collected a force of carpenters, masons, and such artificers—slaves, of course which reached 500 men. Not only did he buy houses on fire, but also, enlarging upon the common practice, he made a bid for those adjoining which stood in danger. His proposals were commonly welcome,

we learn, so helpless were the people and so great the peril. By this means Crassus became the greatest owner in house property in Rome.

WARPING OF LUMBER.

IT is said the wood on the north side of a tree will not warp as much as that from the south side; and that if trees are sawn in planes that run east and west, as the tree stood, will warp less than if cut in the opposite direction. However this may be, it is certain that the tendency to warp when sawn into boards is much greater in green than in dry wood, and that the convex side of the curve is always toward the heart. This warping, due to unequal shrinkage, and to the more open texture of the external portion of the tree, is not found to occur in the middle plank or board of the log, excepting as it may, in slight degree reduce the breadth.

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THE WATEROUS STEEL BAND MILL (Pat. Can. and U.S.).

shown that they are quite alive to this view of the matter; and as the season is approaching when they will find it necessary to place their mill properties in shape for practical operation, it is hardly likely that the Waterous band mill will escape thoughtful consideration at their hands. All the difference in a season's profits may be in the character of the machinery in use.

THE TIMBER TRADE OF HONDURAS.

THE first wood-cutters in the territory went to Belize one hundred and fifty years ago, taking with them their slaves and their cattle, and since that time Belize has been principally occupied with the various camps or mahogany works, which extend between the rivers Ulua, Chamaleon, Patteck and Wanks, on the Atlantic coast. The timbers at present most sought after for shipment are mahogany, cedar, rosewood, zebra, and fustic. Mahogany and cedar are the leading exports and shipped mainly to England, though some contracts have re-



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

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

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of eliciting the truth. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

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

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

THE GOVERNMENT FORESTRY MEASURE.

THE Ontario Government has, as was anticipated by the LUMBERMAN in a previous issue, taken a forward step in Canadian forestry. In the Speech from the Throne the announcement was made that a commission has been appointed to report upon the desirability of establishing a forest reservation and park in part of the Nipissing district, south of the Mattawa River, and upon the methods and expense of maintaining and managing the same. Subsequently Mr. Hardy, minister of Crown Lands, explained to the House the scope and nature of the commission. The district which it is proposed to establish as a park is north of Haliburton, south of the Mattawa River, west of the Ottawa and east of Parry Sound, embracing about fifteen or twenty townships, more or less. In six, eight or ten of these is a number of small lakes, which are the fountain-heads of several rivers flowing east and west. There is a great accumulation of water in these townships. They are practically unsettled and are considered unfit for agriculture; the pine is off them, the hardwood remains.

The commission consists of Mr. Aubrey White, Assistant Commissioner of the Crown Lands Department; Mr. Archibald Blue, Director of the Bureau of Mines; Mr. A. Kirkwood, chief clerk of the Crown Lands Department; Mr. Dixon, of Fenelon Falls, inspector of surveys, and Mr. R. W. Phipps, superintendent of forests. Mr. Gibson, of the Department of Mines, is secretary. The only person who will be remunerated for his services will be Mr. Dixon, the surveyor. The object of the commission will be first to investigate the character of the townships and ascertain those best adapted for the purpose, having regard to the nature of the soil, etc., and then to tabulate and schedule the information for the benefit of the House.

In taking measures to constitute a forest reservation the Government has good reasons and well established precedents to support the movement. It is hardly necessary to prove that the destruction of the forests of a country, in too large a measure, has an important

effect upon the rainfall of a country, to the prejudice of its agricultural interests. As the trees are felled and the woods cleared, so our streams and rivers dry up or are lessened in extent and volume. In Europe the Rhine, Volga, Po and Seine are all waters that have been diminished in depth to no inconsiderable extent by the clearing of the woods. At the Forestry Congress, held in Vienna in 1873, it was shown that the Elbe had diminished ten feet in half a century. And close students of conditions and changes that have taken place in the rivers and streams on this continent tell us that like results follow like causes; cases in point are the Connecticut, Ohio and Hudson rivers.

The same importance may not be attached to changes in temperature; these changes are very noticeable in this country; authorities differ in regard to the influence of the removal of the forests upon the temperature, yet such close observers as Noah Webster, Dr. Rush, Thos. Jefferson and others, have satisfied themselves that these changes, which we all remark, are due largely to the lessening of forest protection in different parts of this continent.

These and other considerations no doubt controlled Colbert, minister of Louis XIV., in drawing attention more than 200 years ago, to the dangers that threatened France on account of the destruction of her forests. To-day France, along with Germany, are the foremost countries in the world in the intelligent consideration that is given to the management of their forests.

The establishing of a forest reservation on the lines suggested by Mr. Hardy, though at the outset we may move on a less elaborate scale, is a step taken some time ago by American legislators in the setting aside of certain reservations, as the Adirondack and the Yellowstone Park. This work perhaps owes its inception to the agitation started thirty years ago by the American Association for the Advancement of Science, who presented a memorial to Congress asking that something be done to secure the preservation of the great Adirondack forests. Australia and India have also of late years paid much attention to this subject: so that all over the world the important question of forestry, in one form or another, is receiving attention. Our Government is acting in the best interests of the country in making forestry an active question in the present day, instead of leaving it to future legislators to take aggressive measures when less opportunity may exist for doing anything practical. The history of other countries shows, that a late, in contrast to a forward movement, might easily be made the programme, and to the permanent loss of the country.

Incidentally Mr. Hardy mentioned that there are other reasons which warranted the Government in moving in this matter. The lakes and streams in the proposed district abound in fish, and is also the home of game and deer. It was thought it might be well to set apart this county as a refuge for all wild animals and a place where fish could not be caught by seine, or to any large extent, and to do both of these things at no great cost to the country.

Though lumbermen do not usually receive credit of heeding the advice, "woodman, spare the tree," and immediate and material results are often likely to be the stronger controlling power in dealing with our forest resources, they are, at the same time, among our most loyal, as well as enterprising citizens, and they are ever prepared to stand in the advance guard when the national welfare is at stake. They and the citizens generally will, we believe, await with interest the report of Mr. Hardy's forestry commission.

MORE TARIFF MATTERS.

THE lumbermen of the United States, at least some of them, will meet in convention in Washington this month to personally press their protests against the Bryan free lumber bill. The question is being agitated with the usual ardor of our American cousins. The addition of a cipher or two in some of the calculations made is neither here nor there with those who are leading the agitation. For example, we are told in the requisition calling the convention, that in 1891 the value of Canadian forest products imported into the United States was \$13,500,000, though how these figures were made up neither Mr. Huyett nor any of his friends have

been able to tell us. The fight, in truth, has got so warm that the lumber press are now fighting among themselves. The Northwestern Lumberman, of Chicago, which leads the agitation, wants any advertising advantage that may come from this discussion to count for its own coffers, and has taken occasion to upbraid the Timberman, and the Lumber Trade Journal, of its own city, two of the ablest representatives of the American lumber press, and the Mississippi Valley Lumberman, which speaks for the important lumber interests of that section of country, with want of zeal and loyalty to United States lumber interests. These assailed journals, of course, hit back, making the charge of hollowness against the Northwestern Lumberman, alleging that the convention scheme was engineered in the office of the Northwestern, the call issued by one George A. Priest, a Government employee, for political purposes, the circular written on Northwestern Lumberman paper, while the man Huyett, who has furnished the statistical artillery, "is one who has made a failure of everything he has touched, and the Northwestern Lumberman is willing that he should make a failure of this if he did, and take the obloquy of making a failure." Altogether it is a nice little piece of journalistic "scrapping" worthy of the country press of any backwoods village.

But the "scrappers" aside, what is the marrow of the question? The lumbermen of the Southern States are among the strongest opponents of the Bryan bill. Their chief market, the Southern Lumberman says, is in the great lumber centres of the United States, nearest the Canadian market, and with the advantage of freights on our side and better transportation facilities "the admission of the Canadian manufacturer with free lumber from Canada would practically crush out the southern manufacturer." This journal slightly modifies the rather strong statement which we have just quoted by adding: "Perhaps in this State (Tennessee) and Kentucky the effect would not be so damaging, for the reason that the staple timber of these Southern States is yellow poplar and this wood cannot be obtained from Canada, and many of our local dealers sell poplar in Canada. But the free competition from Canada would unquestionably hurt the yellow pine manufacturer, crowding his lumber back from the Northern market and depressing its price, and this, following an unprecedented low price of cotton, would be disastrously felt in the south." At the same time, the Southern Lumberman "speaks out" plainly in favor of entire free trade, if such were practicable and possible, which it hardly anticipates under a Harrison-Blaine administration.

The lumbermen on the Pacific coast are protesting on the ground that "the opening of American markets to British Columbia mills means destruction to both American mill interests, already depressed to the lowest limit by over-production, and the growing ship-building interest on the Pacific coast."

Other territories view the matter according as the change would affect local interests. The consumer, on the other hand, is making less noise, apparently; he is not "flaunting forth screeed after screeed of senseless assertion, going off half-cocked, nor arranging a row of ghosts to frighten lumbermen," which sin one Chicago lumber journal lays to the charge of another, in his agitation, but he is making his influence felt with his representative, who knows that it is the people's votes at the ballot box that gives and holds him in his position; as an opponent of the measure admits "free lumber will give the people cheaper lumber."

The New York Lumber Trade Journal has this comment to make on the subject: "The tariff question is a hard one to adjust satisfactorily to all interested, so far as lumber is concerned. The Saginaw River mill-owners have been building their hopes on receiving from 125,000,000 to 150,000,000 feet of logs from Canada during the towing season of 1892; and now the outcry for an increased tax on Canadian lumber, if it should prove successful, will just about place the Saginaw river lumbermen "between the devil and the deep sea," to use a common expression, as it will be met by the Canadians with an increased export duty on logs to at least the proposed increased tariff on Canadian lumber, which will result in an increased cost of \$1 per thousand on all the logs towed across the lakes to the Saginaw Valley mills, which, it will be readily perceived,

will make the question of Canadian competition about as broad as it is long to the valley lumbermen, who, two years ago, cried out lustily and used all their influence for the present arrangement in the McKinley tariff bill, which, if interfered with, and the Canadian log export duty increased in retaliation for any increased duty on Canadian lumber seeking the American market, will result in great loss and injustice to the Michigan lumbermen, who have invested in Canadian timber limits with the expectation of converting the timber into lumber at their mills on this side of the line."

Canadians are no ways perturbed and quietly and good-naturedly watch the on-to-Washington move.

LESSONS FOR LUMBERMEN.

IN the ELI page of last month's LUMBERMAN we published an interview with Mr. Gibson Collinson, of Aberdeen, Ont., who had been in the city attending a meeting of creditors of Capel & Co., woodworkers, a firm that had managed to get into deep water. The meeting was adjourned for a fortnight to give Mr. Capel an opportunity to make a proposition to his creditors. The second meeting took place in the office of the assignee on the 12th of February. The insolvent himself was not present, being confined to the house by sickness, nor was Mr. Burland, whose special place it seemed to have been to look after the lumber department of the business.

The statement of the assignee showed the liabilities to be as follows: Toronto creditors \$1,868.55, due outside city \$3,697.44, preferred claims \$538.10, a total of \$6,104.09. The assets consisted of machinery and plant valued at \$4,071.00, book debts \$2,253.00, cash \$96.44, total \$6,420.49. It appeared to be shown by the assignee that the wood-working business itself was capable of earning a considerable nett profit per year. About a twelve month previous Mr. Capel had been influenced to add a lumber business to his regular business, placing the management in the hands of Mr. Burland, who was paid a stated salary per week, his expenses, and was to receive a commission on the lumber sales. A business of \$12,000 was done during the year, on which a loss of \$3,900 was made; a sum equal to one-third the gross sales. One instance will illustrate how the losses were made, for it was typical of others: a car of lumber was bought at \$8.50 per thousand, shipped to New York, and sold there at \$6 a thousand. Mr. Capel's statement is that he did not know until ten days before his trouble the hole he was digging for himself, or allowing some one else to dig. He had entrusted everything to Mr. Burland, and this was the result. His wood-working business had been sacrificed to an outside movement, and he was now compelled to seek the indulgence of his creditors.

When full explanations had been made the sympathy of the meeting was altogether with Mr. Capel, and when a proposition was made to pay fifty cents on the dollar cash, and fifty cents unsecured, without interest, in two years, it was unanimously accepted.

We have given more attention to this matter than, as a simple case of insolvency involving less than \$7,000, it actually merits. But it is a case not without certain practical lessons that it may be profitable to consider. Mr. Capel, we fancy, has by this time come to the conclusion that the advice, "cobblers, stick to your last," is not always faulty. Others besides Mr. Capel have learned this after paying dearly for the experience; "the tools are not all dead yet," and there are others who might profit by the experience while there is opportunity. More erstwhile contractors than can be counted on the fingers of two hands would be richer and happier men to-day if they had "stuck to their last" and left speculative building and real estate ventures in this city alone.

Mr. Capel is not the first man who has made the mistake of staking his credit entirely on the managing capacity of another. It was not Mr. Burland's name nor influence throughout the country that enabled him to secure about \$12,000 worth of lumber from the Collinsons, Murphys and other lumbermen of the province. Mr. Capel's letter of credit, supported by a known good name, established the credit, which unfortunately carried with it \$4,000 of unpaid notes at the end of the year. We do not say it in a spirit of harshness, for we believe Mr. Capel was more sinned against than sinning, a victim of circumstances if you like, but the point needs to

be emphasized that a business man, in justice to his own good name, as well as for the protection of those from whom he seeks credit, cannot with impunity claim exemption from criticism on the ground that he "did not know." Mr. Capel, long before a year had passed over his head, should have known that the lumber that was being bought on his credit was being sold in nearly every case at a loss, and this being so, one end only could be the outcome. Careful personal supervision and an exact calculation of how one's ventures, especially new ventures, are realizing, is demanded of every man in these days of close margins and keen competition.

May we not preach a little at the lumbermen, who do not, as prudently as they might sometimes, deal out credit to those who come to buy their stocks. Credit is too cheap in the present day. In the case of Mr. Capel his standing was reported good, yet it could not have been as sound as reported, particularly after he had been a few months in the lumber business. It may not have been so easy to have discovered that there was a weakness in Capel's case. Our mercantile agencies are at times much "out" in their reports. We have a strong conviction, however, that if lumbermen exchanged confidences among each other more frequently than is usual, that they would get to learn how different men, to whom credit is being given, are getting along. We know that it is not an uncommon practice for a business man, when his credit is weakening, to commence to unload on a new man. Lumbermen associated together would be more likely to "catch on" to these practices than working isolated and alone as is unfortunately the case with the lumbermen of this country to-day.

Enough said: He that hath ears to hear, etc.

NOT SO.

THE Timber Trades Journal, of London, Eng., is disposed to chide Canadians after the following manner: "The practice of dishonoring drafts in Canada has grown considerably of late, very much to the annoyance and loss of the wholesale firms in Montreal and Toronto, who complain of the utter disregard shown by many of their country customers about the fulfilment of their obligations, the most annoying form of that disregard being that of allowing acceptances to be dishonored without any previous intimation to the drawer."

The fault with English criticism is that it is, as often as not, based on a wrong conception of the real situation. The Montreal Journal of Commerce very aptly remarks on this point: "The practice of 'dishonoring drafts' is one thing, 'allowing acceptances to be dishonored' is quite another affair. The custom so general in Canada of a creditor drawing at sight upon his debtors is very little known in England. A 'draft' in the old land means usually a draft drawn at sight, or at a few days, up to twenty-one, upon a London banker by a country bank. Irish produce merchants, however, draw on English retailers for shipments of butter, bacon and eggs. As to 'acceptances being dishonored without previous intimation to the drawer,' that is a wholly different matter. An acceptance is a legal obligation to pay a certain sum on a fixed date, it is offered to a banker for discount on that ground, he advances its face value less interest up to maturity because repayment is pledged on a fixed day. To disregard an obligation of that character is not only exceedingly unbusinesslike, it is dishonorable."

His other fact is to be noted that the business men of Canada are to-day more scrupulous and careful in the financial management of their business than perhaps at any other time in the commercial history of the country.

English newspapers, and commercial journals in particular, should know their ground well before making statements that give a prejudicial coloring to the commerce of any land. We will excuse them when they get a few thousand miles astray in describing the geographical lay of some of our towns and cities, or when they turn historical matters wrong side foremost, sometimes, as the Saturday Review did not long since in discussing a Canadian topic, but we must hold them to John Bull exactness when they touch any point so important as the credit of the individual Canadian.

Less than fifty persons attended the Washington convention of lumbermen called to protest against free lumber.

EDITORIAL NOTES

MR. IVES, member in the House of Commons for Richmond, Que., has given notice of a motion calling for the re-imposition of duties on saw-logs. Mr. Ives is one of the members who had expected to have been made a Cabinet minister in the recent re-construction, but his ambitions were not met, and rumor says that he has soured on the Government. Of course his present motion, if successful, would be a reversion of the legislation of the late Premier.

THE following reference to woods and forests is found in the Speech from the Throne delivered at the opening of the Ontario Legislature: Notwithstanding the decreased output of timber and saw-logs last winter, the revenue from woods and forests for the year 1891 was in excess of the estimate. The receipts on account of Crown lands sales were also larger than anticipated. Owing to the exceptional drought in the spring and early part of the summer of last year, forest fires were unusually numerous and extensive. By means of the system of fire-ranging adopted some years ago these fires were in some instances entirely extinguished at an early stage, and in others confined to limited areas. The prompt information conveyed to the Crown Lands Department through this service greatly facilitated the work of the department in dealing with the injured timber, and about one hundred million feet of pine in unlicensed territory through which fires had passed were, the latter part of the year, disposed of at good prices.

MR. MARTER, M.P.P. for Muskoka, has moved in the Ontario Legislature, now in session, for an address to His Honor the Lieutenant Governor, praying that he will cause to be laid before the House a return showing: 1. The quantity of pine in unlicensed territory disposed of since last session. 2. The persons to whom the same was sold, and the quantity sold to each of such persons. 3. The prices at which each sale was effected. 4. The terms and conditions of the sales. 5. The purchase money paid, and the amount, if any, remaining unpaid, giving the name of each purchaser any part of whose purchase money is paid, and the amount unpaid by him. 6. Copies of the orders in Council authorizing the sales, and the reports and other material on which the same were based. Mr. Hardy said that there was no reason why a return should not be brought down. He explained that no other timber but pine had been disposed of, and that the money had been paid in the same manner as timber dues. In the case of timber cut this winter, the bonus and dues would be paid next September.

THE lumbermen of British Columbia are asking why Douglas fir, which grows in large quantities in that province, should not come under the regulations of the McKinley Bill fixing the tariff on certain kinds of lumber at one dollar per thousand feet, but not including Douglas fir. This is just one of the ways the McKinley Bill is framed. Spruce, which is an important product of the Maritime provinces, comes under the same regulation, and so with our hardwoods. There is no question that the measure is in this and not a few other respects jug handled, but whether just now, as tariff propositions are viewed by the United States government, any relief can be secured, is exceedingly problematical unless it should come through the Bryan free lumber bill. If this cannot be obtained then the British Columbians ask that our government impose a duty of two dollars per thousand on pitch pine from the Southern States, which is now admitted free, and is very similar in many respects to the fir of British Columbia, and is largely used for car sills and other purposes requiring timber of large dimensions. One impost would, it is argued, help to offset the other. But as this would also lead to a disturbance of tariff relations between the two countries, it is likely our Government would move with a large measure of caution.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

DISCUSSION continues to gather around the question of the possible future of lumber in this State. How long will our timber supplies last? Are we drawing near the close of our best lumber days? These and kindred questions are frequently asked, and, as I have pointed out in former letters, are variously answered by our people here. In a recent letter I gave the names of a number of large lumber firms that are moving out of the State, a circumstance that has given color to the view that Michigan has already seen its best days in lumber. My only apology for referring again to this subject is found in the fact that Canadian lumbermen are necessarily interested in the lumber conditions of this State, and contrawise our lumbermen are considerably interested in your lumber affairs.

Mr. J. W. Park, one of the oldest professional lumbermen in the state, recently unbosomed himself on the question to a reporter of the daily press. His reference is specially to the Muskegon river, which he knows well. Some of his observations on past and present methods of cutting timber will be found interesting. "It will take," he says, "twenty years to cut all the pine on the river. Of course most of what's left will be cut within three years. The Muskegon mills will be through at the end of that time; but there will be pine left and saw mills cutting it twenty years from now. It takes longer to cut a section of pine than it used to. It isn't butchered the way it was. The time isn't very far back when the smallest log to be seen in the Muskegon river was twenty inches in diameter at the smallest end. Now you see logs there that aren't so large around as a dude's cane. Anything big enough to season check goes. The band saw is having a great deal to do with the sawing of timber. It saves twenty per cent. over the circular. When you think of the number of millions of feet of lumber cut every year, you can form some idea of the amount saved. If the band saw had come into Michigan twenty years ago there would be thousands of acres of pine standing in Michigan where there is now nothing but scrub oak and blackberry bushes. It is strange that the band saw wasn't invented before. It is more closely modelled after the old upright saw than the circular is. It can be run even more safely and will cut away about as much lumber. The circular was easily devised, however, and as a timber slasher it has surpassed anything else ever invented or perhaps that could be invented. Michigan pine has been sadly slaughtered. Lumbermen couldn't see it at the time, but they see it now. They seemed to have the impression that the supply was inexhaustible, and everything that wasn't first-class went to the slab pit. Many of them wouldn't deign even to make lath of the slabs, and logs that wouldn't cut twenty feet were left in the woods. It wasn't worth while to make shingles or "shorts" of them. Lumbermen know better now, and everything that will make lumber, lath, shingles, pickets, matches or toothpicks is treasured with religious care."

We suppose that this whole question is one that only time itself will settle. There will always be those who will take a more hopeful view of the situation than others, and so long as timber is cut and mills are running the belief will be that these conditions will be further continuous. In the meantime not a few of our Michigan lumbermen are placing a certain proportion of their capital in other lumber States of the Union, and some in Canada.

BITS OF LUMBER.

Over 20,000,000 feet of logs have already been banked on Sugar River by the A. W. Wright Lumber Co.

The mills on White Lake in 1891 cut 24,785,000 feet of lumber, and 25,883,000 shingles, the smallest output for years.

J. F. Eddy, Sel Eddy, Newell A. Eddy and C. A. Eddy have been in Canada on an inspection tour of their lumber and timber interests.

A gentleman supposed to be well posted on the situation, says that the most reliable estimate he can secure is that there will be only 100,000,000 feet of logs harvested on the Au Sable River this winter as against about 250,000,000 last season.

SAGINAW, MICH., Feb. 24, 1892.

PICA.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE opening months of the new year are usually barren of any marked activity in lumber circles, and this year is no exception. It is pleasing to note, however, that the outlook for the lumber trade in the near future is quite encouraging, and naturally gives buoyancy to the steps of our various lumber kings.

One of the leading lumbermen here estimates that fully two-thirds of the lumber cut at the mills for next season has been sold at rates about the same as last year. There is yet considerable stock on hand here waiting shipment, although it has all passed out of the hands of the manufacturers, unless in a few cases. In square timber there is being about 3,000,000 feet made this winter, as near as can be learned.

On the 5th of April about 100 square miles of limits belonging to the estate of the late David Moore will be offered at auction, all in the province of Ontario.

Mr. Wm. Burns, of the firm of Bronson & Weston, has returned home to Ottawa after an absence of eighteen months in the Upper Ottawa lumber district. He states that the firm took out 30,000 logs this winter on the DuMoine, employing over 200 men. This is considerably more than last year. Thomas Philbin's gang of thirty-five men at Bay Lake took out a champion lot of big timber. There was an average of thirty inches of snow in that section this winter, and everything is favorable for the "drive," which will commence about the 1st of May. Grippe was very prevalent among the men, one of whom died, and whose body was brought down by Mr. Burns as far as Rockcliffe, from where it will be shipped to his relations in Quebec province.

Referring to the charge that the late Quebec Government reduced by \$23,000 the account against Messrs. W. C. Edwards & Co. for timber dues in 1890-91, a leading lumber merchant is reported by the local press to have said that no special favor was shown to Messrs. Edwards & Co. in the matter, as the reduction was made in accordance with a settled rule. The original accounts were based upon the reports of forest rangers, which the lumbermen claimed were incorrect, and they demanded rebate on account of small logs, inferior logs, etc., and all the lumbering firms get the benefit of the reduction, including Messrs. James King, the Conservative M.P. for Megantic, Mr. John Bryson, ex-M.P., Messrs. Gilmour & Co., and other leading Conservatives. The rebate was but a small percentage of the account, and similar reductions have frequently been made for cause by the Ontario and Dominion Governments.

The addition to Buell, Orr & Hurdman's mill is rapidly nearing completion. The new machinery has almost all arrived, and the men are busy placing it in position. The tin-roofing of the building is now almost completed.

In Booth's mill the large pier upon which the new English gate saw shall be placed is finished, and men are now engaged boring the large stone block measuring eight feet in length, six in width and two and a-half in thickness on which the new saw will be placed. Other machinery is also being added to this mill, two twin saws having arrived yesterday.

Mr. L. Dubois, agent for the estate of D. Moore, on the Kippewa, yesterday shipped several teams up there in order to get out all the timber before spring.

OTTAWA, Feb. 26, 1892.

LITTLE CURRENT LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE following is a list of the principal firms operating near here this winter, with quantities of logs they are taking out. Howry & Sons, a Saginaw firm; limits on the Whitefish River; 30,000,000 feet; will be manufactured at Saginaw and Bay City, Michigan. McKen & Glover, jobbers for the Spanish River Lumber Company; 35,000,000 feet, limits on the Spanish River; will be manufactured at the company's mills at the mouth of the river. J. & T. Charlton & Co.; limits on Whitefish; 5,000,000 feet; will be manufactured at Tonawanda. J. & T. Conlon, 10,000,000 feet; limits near the Whitefish. will be manufactured at the company's mill's here. McKinnon & Walsh, operating on the Wikwimikong Indian Reserve, Manitoulin Island, 5,000,000, will be manufactured at the company's mills at this place.

The Cook Bros. Lumber Company at Serpent River are taking out large quantities, as well as several large firms on the Spanish River, including the Georgian Bay Lumber Company.

W. L. Herriman, of Lindsay, operating at Honora Bay, Manitoulin, is taking out, in addition to 1,000,000 feet of pine, 30,000 pieces of cedar, which will be cut into square timber and shingles at his mills at Honora. 50,000 cedar ties are also being taken out in the same vicinity.

Considerable lumbering is being done north of Killarney.

The timber on the Birch Island Reserve, mouth of the Whitefish, was sold on 8th February to J. & T. Conlon. \$6.50 per M. delivered on the bank is said to have been the price paid, not including bonus.

The oak on the Wikwimikong reserve was sold a few days ago to McKinnon & Walsh. \$8 per M. delivered on the bank is said to have been the price, exclusive of bonus.

Altogether prospects for the lumber business around here for the coming season are very promising, and especially for this place, as all the mills will be in operation.

LITTLE CURRENT, ONT., Feb. 27, 1892.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

LOCAL business has improved and promises to be very good this summer. The Brunette Mills started up full force on the 15th inst., and have plenty of orders on hand. The South American trade is also showing signs of improvement and several vessels are loading for those ports.

The Round Prairie Logging Co. have 350,000 feet banked at Armstrong, and are still busy cutting.

Mr. A. Charleson, who is engaged in locating the line of a proposed logging railway, for the McLaren-Ross Lumber Co., returned from Chilliwack a few days ago. The line will commence on the bank of the Fraser, a short distance east of Sumas Mountain, and run south seven miles to the company's immense claim. All the timber logged in these limits will be carried by rail to the Fraser, made into rafts and floated down to the mills. It is expected the work of construction will be commenced at an early date. The farmers in the neighborhood of the proposed line are all in favor of the scheme, and will assist it in every way. Three miles of steel rails have been ordered, and are due to arrive on the ship Argyle, which will reach port shortly.

PROOFS OF PROGRESS.

The large extension to the factory department of the B.C.M., T. & T. Co.'s mill is now almost completed, and will be ready for occupation in a few days. On the roof of the building, and also on the front end, very large sign boards, bearing the name of the company, are being erected. One sign is placed in such position that it can be seen and read from the steamers passing up and down the river. The company have a large quantity of new machinery on order from the east for this new wing, which, when in position, will greatly increase the manufacturing capacity of the establishment. In the upper part of the building drying frames are being built. This extra room and machinery will be the means of giving employment to a larger number of workmen than have hitherto been employed.

Not quite a year ago the ship Titan loaded a cargo of big timber and decking for the Geo. W. Bush & Sons Lumber Co., of Wilmington, Del., a firm which does a great deal of work for the United States navy. This cargo gave such good satisfaction that the sale of another cargo of dimension stuff for a similar purpose has been effected to that firm by the Hastings sawmill. The barque Mistletoe has been chartered to carry it, and she left Buenos Ayres about December 1st to load in Vancouver. The good qualities of the cargo of the Titan have been the subject of general remark among the lumbermen of the eastern United States. Regarding it the Chicago Northwestern Lumberman said: "Some political capital has been made by the Philadelphia papers in the shipment by the Hastings sawmill, of Vancouver, B.C., of a cargo of ship stuff to the Geo. W. Bush & Sons Lumber Co., the journals claiming that the reduction of the tariff made such a sale possible.

The Lumberman correspondent gained the information that the purchase from the British Columbia people was due to the excellence of their material as compared with Oregon and Washington sawmills, and was independent of the tariff reduction." The purchase of the second cargo is an undeniable testimony to the superiority of British Columbia Douglas fir.

SOME LUMBER STATISTICS.

There are fifty-seven sawmills built or under construction in this province. The timber leases cover 273,428 acres and yields a revenue of \$20,404 annually. During 1891 the cut of timber by all the mills was as follows:—

From Crown Lands.....	16,130,011 ft.
From timber leaseholds.....	33,765,137 ft.
From timber limits.....	15,974,355 ft.
From private property.....	17,238,832 ft.

Total..... \$3,108,335 feet

The revenue received from timber royalty was \$31,479. During 1891 twenty timber leases were issued, covering 51,112 acres and twenty-one timber cutting licenses, general.

DISPUTED METHODS OF MEASURING.

Among the provisions of the new Land Act, as introduced by the Chief Commissioner of Lands and Works in the Legislature, is one dealing with the method adopted in measuring (or "scaling," as it is technically called) logs cut on land held under leases from the Government. The rule of measurement now in use has been followed for several years. But representations having been made to the Land Department by some of the mill-owners that the method was unfair to them, a change has been proposed. It is claimed by competent mill-owners that the methods laid down in Doyle's and Scribner's rules, those largely followed in the past, give a result, as regards the amount of lumber obtainable from a log of a certain size, greater than it is possible to saw out of it. This circumstance leads to constant disputes between loggers and mill-owners over the quantity of lumber in booms of logs. The mill-owners propose a new method of calculation which they claim so closely approximates the real quantities as to be, for all practical purposes, correct. The measurement of a given number of logs of a certain size would, they admit, by the plan proposed by them, be less than by the methods followed at present. This, of course, is a reason for objection to it by the loggers, but the mill-owners propose to meet this by raising the price for logs sufficiently to leave matters as they are at present as regards the amount received by the loggers. It is altogether likely that the Government will take some steps to adjust the matter to the satisfaction of both parties. H.G.R.

NEW WESTMINSTER, B.C., Feb. 20, 1892.

A SERIOUS QUESTION TO DECIDE.

THE average man likes a beer once in a while, and some men have become so accustomed to drinking beer that they will not get along without it. Ask one of these men to buy a technical paper, and they will at once reply that they "can't afford it." Supposing, now, that a man, instead of buying a glass of beer, should buy one copy of a good paper. In that paper he finds something that enables him to improve his knowledge and get a better job that brings him fifty cents more a day. Which is the best investment? The glass of beer, that is sure to call for another one, when the first one is assimilated, or the knowledge that is worth directly \$150 per year, and indirectly many times as much, because of the ever-increasing possibilities of a still better job, as the stock of knowledge increases.

Suppose a man drinks two glasses of beer a day, true it is nobody's business if he chooses to do so, but look at it in a business way, and also suppose the ten cent piece thus spent every day to be spent for tools and a mechanical paper or two. It would enable the mechanic to have all the tools he wanted, also to keep up with the times and to improve his stock of knowledge until he was second to none in his chosen profession.

Which supposition will it pay to follow? Shall we swallow the beer every day, or shall its price be put to some use that shall yield some benefit?

Suppose we think before choosing, as each man has the right to do as he pleases, but before deciding, will it not pay to use business principles a little in coming to the decision? Suppose we try it.

BRAZING BAND SAWS.

BY J. D. ALLEN

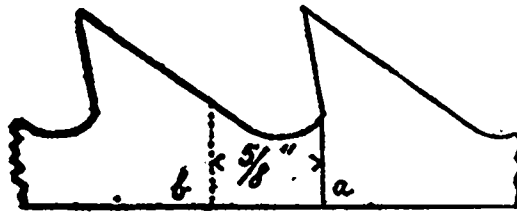
SOME new beginners in band saw filing (and, in fact, some of the old ones) have trouble in making the splice or braze in their saws, especially when they attempt as wide as ten-inch blades, and perhaps a few points on this subject may help some one out of the difficulty. I have in mind a filer who rarely ever makes a failure in brazing his splices, and his experience has been almost entirely with ten-inch saws, and I attribute his uniform success to his care in getting ready.

First, be very careful in the preparation of the muriate of zinc in the following manner: "Take of muriatic acid and pure water, equal parts (distilled water is the best, as there is no organic matter in it), put in a wide-mouthed bottle, and feed into it of clean strips of zinc as much as it will eat up. When it has ceased to eat the zinc, it is ready to drain off from the dregs of zinc, and to use. Now measure your saw, and if to be pieced out, make it the length of a new saw for the mill it is to be used on; if it is to be cut for a crack or for any other cause, make the length to match some other of your short saws, as I find it saves time in changing saws to have them in pairs as to length and width as much as possible. It is sometimes difficult to get a cold chisel to stand to cut raw steel, and I make the edge of the chisel slightly curved both ways—that is, the edge curved like this:—

and the bevel like this:—



Cut the ends of saw so that the laps will come in the throat of teeth, the end of the lap on log side at the bottom of the face of tooth, and that of the board side end five-eighths of an inch up the back of next tooth forward.



as shown in sketch, the full line A showing end of lap on log side, and dotted line B, end of lap on board side of saw.

Five-eighths of an inch is enough lap for any saw up to ten inches wide. It might appear that it makes no difference which way the ends are lapped, but my experience is that a lap nearly always comes loose or cracks on the log side first, if at all, and making the lap as here shown prevents the end from tearing up in the guides. File the bevel evenly and flat, and finish up with a rough (flat bastard) file across the blade up to, but not over, your line on top, and almost to an edge at the end. If your laps are lumpy or thick at one place on the end and thin at another, it is liable to make a "miss" of your braze, as the thick places will squeeze out all the solder, and, if it does happen to stick, it will not finish up to look well. When you have finished filing a lap, be careful to not touch the filed surface with your hands, but wrap up in clean paper until ready to put into the clamps. The brazing irons should be not less than five-eighths of an inch thick (three-quarters thick is better, if your clamp will take that thickness), two and one-quarter inches wide, and thirteen inches long, flat, and of even thickness, and should not be used more than twice without having them flatted, or better still, use new ones, and let the blacksmith use the old ones for some other purpose.

Take a strip of silver solder one-quarter of an inch longer than the length of the lap, and the same width, or maybe a little wider, holding it between thumb and finger, between a piece of sand-paper, draw it through another piece of sand-paper until it is perfectly clean and bright, change ends so that the whole surface may be cleaned, lay on a clean piece of paper until ready to put into the lap. Now "coke up" a quantity of coal in the forge, place the irons in the fire, and after the fire is long enough to heat them full length, let them remain in it

without any blowing, so they may heat evenly. While the irons are "soaking," put your lap into the brazing clamps, apply some of the muriate of zinc to the filed surfaces and also to the solder; place the solder between the laps, holding it between your thumb and finger on edge so as not to touch the surface. Let it project a little on both sides and on top; see that the back is against the stops, and in a straight line; clamps tightened down, the large clamp that holds the iron to the lap up, so you can slip the irons in easily. Take a look all over it, to see that all these details are right. By this time your irons are nearly or quite hot enough, and right here is where a good many failures are made

that is, in not getting the irons evenly hot enough. They must be a bright red for at least three inches longer than the lap. When in this condition, clean off the surfaces with an old file. Place on your lap, the ends projecting over the lap evenly on both sides, screw down the clamps solid, but not too tight, because, if too tight, it is liable to squeeze out all the solder when it melts, and when it is down do not move it. I have emphasized the fact that every thing about the lap must be kept clean and free from grease, as the solder will not take hold of a dirty or greasy surface. If you have been careful to observe all the details as here given, you can rest easy that you have got a good braze. If brass is used instead of silver solder, the irons must be almost a white heat.

WHAT INCOMPETENCE COSTS.

SAWMILLS can be and have been run without a single thoroughly competent man about them, but they never proved a phenomenal success. The difference in the cost of a competent and an incompetent operator rarely exceeds two dollars a day, but there are very few sawmill men who ever calculate the exact difference to themselves there is between the two in money value. Suppose it costs \$50 per day to run a mill averaging 20,000 feet daily. It puts the cost of manufacturing lumber at \$2.50 per 1,000 feet. Then suppose by paying a good sawyer \$2.00 extra per day, making the total cost \$52 per day, and that he cuts 22,000 feet per day, which is a low allowance of increase, the cost of manufacture is reduced 13 2/3 cents per 1,000 feet, or \$3.01 saved on the day's cut. In this case the owner makes \$1 per day profit on the investment of \$2, or if he is sawing by contract at \$2.50 per 1,000 feet, he receives \$3. But if the good sawyer increases the daily cut 20 per cent., which is not an unreasonable estimate, the cost of manufacture is reduced to about \$2.18, a clear profit of \$5.68 a day, or an increased receipt of \$8 on a contract price.

A very important man in a sawmill is the one who operates the gang edger. The position requires experience, good judgment and rapid decision. An incompetent man in this place can spoil timber to the value of many times his day's wages without its ever being discovered, unless he is closely watched.

It is hardly necessary to say that none but a thoroughly reliable man should be given charge of the boiler and engine. A mistake in this regard may involve the entire plant, to say nothing of life and limb. Whatever class of men may be placed in other positions, the three places above mentioned should be filled with the right sort, no matter what they cost. If the business will not justify employing such, it had better be abandoned.

BRITISH WOODLANDS.

TEN years ago the woodland surface of Great Britain was returned as covering 2,458,000 acres. In 1888 the acreage so occupied had risen to 2,561,000, and the measurements taken last year show a further advance to 2,695,000 acres. Of the 134,000 acres thus added to the approximate woodland area of Great Britain, 96,000 acres occur in England, 7,000 acres in Wales, and 31,000 acres in Scotland. The county of Hants, with 122,574 acres, possesses the largest woodland area in England. Sussex, with 122,073 acres, comes second, while the four counties of Hants, Sussex, Surrey, and Kent possess between them nearly a fourth of the English woods and plantations, showing over 11 per cent. of their surface thus occupied. In Scotland, Inverness has 169,000 acres of woodland, the largest area of woodland in Great Britain.

THE NEWS.

ONTARIO.

—B. A. Grant, lumber, Westmeath, has assigned.

—Mr. Greets, of Ottawa, has purchased the timber limits on Lake Keepawa. The price was \$109,000.

—D. McNaughton, of Guelph, has fitted up a new planing mill in the Royal City, which is doing good work.

—Joseph S. Wallis, of Port Carling, has replaced a 20 h.p. engine with a 40 h.p. engine. Other improvements have been made in the mill, and business is good.

—A bill to amend the Saw Logs Driving Act will be introduced in the Ontario Legislature, now in session, by Mr. McCampbell, M.P.P., the well-known Midland lumberman.

—Vansickle & Bro., of Barrie, Ont., are getting out this winter 2,000,000 feet of timber, consisting of pine, basswood, soft elm, black and white ash and red oak, and expect to start their mill about the 1st of April.

—D. McMorris, of Guelph, has sold his sawmill, planing mill, and door and sash factory to Young & Bro., of Orangeville. Mr. McMorris intends to devote his attention entirely to building and contracting.

—The milling and lumber firm of Sadler, Dundas & Co., of Lindsay, intend merging their business interests into a joint stock company, limited, capital \$150,000. The headquarters of the new company will be at Lindsay.

—Recent purchasers of the Waterous band saw mill are W. S. Greensides, Mount Forest; Jones Bros., Warton; J. W. Buchanan, Perry Station; besides W. S. Loundes, Gaspé, and R. Thackery, Maryland, Que.

—The M. and O. Lumber Co., of Norman, intend running their mill to its utmost capacity the coming season. They have logs sufficient to produce 7,000,000 feet of lumber at the boom and contractors are taking out as many more this season. Cameron and Kennedy will run day and night.

—Financial troubles in building and kindred lines in Toronto for the month include the difficulties of Gall, Anderson & Co., referred to in our trade review, E. W. Powers, builder, contractor for the new building of the Athenæum Club, and John Douglas, an extensive real estate operator, with liabilities of \$250,000.

—Letters of administration have been granted in the estate of George Reid, an East Toronto lumber merchant, who died in December last. He left a house and lot in the village worth \$10,000, on which there is a mortgage for \$5,000, to the late Sir Adam Wilson. His interest in Reid & Co. is valued at \$25,000, and he left a personality of \$2,217.78.

—A statement just issued by the Government shows that during the past seven months the value of export of natural products and manufactures from Canada increased from \$59,911,749 to \$66,106,215 as compared with the corresponding period of 1890-91. The value of the exports of the products of the forest declined from \$16,661,599 to \$13,904,689.

—A lumbermen's association has been formed for the county of Grey. It will be known as the Lumber Manufacturers' Association of the county of Grey. John Harrison is president, and R. Stark, sec. treas. An invitation is given the manufacturers outside the county to attend the next meeting, which will be held on the 24th inst., when important trade matters will be discussed.

—At W. W. Carter's mill, at Cookston, 7,000 shingles were sawed on a Drake machine in one hour and a half. The following day it cut 30,000. The following constitute the crew of experts who made the record: Richard Stevens, filer; Canniff Kimmery, sawyer; Wm. Markle, joiner; Francis Early, packer, and Warren Bissell, engineer. Drake has struck it well with this shingle machine.

—Peterboro' lays claim to a big tree lately cut in Peterboro' county, not far from Lake Umbagog. The pine in question was five feet in diameter across the stump and was 180 feet in length. It was cut into twelve feet saw logs. In order to cut the lumber to advantage the sawyer had to quarter the logs. The timber was of excellent quality, as shown by the fact that the selling price was \$24 per thousand.

—The sailor's friend, Mr. Samuel Plimsoil, the famous member of Parliament, who has done so much toward protecting the mariner by showing up the abuses of the British merchant marine, has lately been giving evidence in London before the labor commission respecting certain evils connected with the lumber trade between Canada and Great Britain, one of the principal ones, in his opinion, being the immense deck loads of timber which are piled up, thereby, according to him, greatly endangering the safety of the vessel and the lives of the sailors. This subject is now under consideration by the Dominion Government.

—The Rathbun Co., of Deseronto, have bought last season's cut of lumber from Alex. McCallum, of Glenaldy Mills, Coe Hill, Ont. The stock, amounting to 800,000 feet, consists of basswood, black ash, maple, birch and pine; and as the mills are five miles from Coe Hill station, the company have now twenty-five teams hauling under the superintendence of Messrs. S. C. Thompson, Jos. Clairmont and John Amey, who are looking after the culling and hauling.

—The Casselman Lumber Co. have gone into liquidation. At a meeting of the creditors held in Ottawa the statement of assets and liabilities showed the liabilities to be about \$124,000, made up as follows: Bills payable, \$17,648; accounts \$26,250; secured liabilities, about \$80,000. The assets total nominally about \$143,000, made up of lands covered by mortgage and logs, and lumber covered by pledges, and other liens, \$11,000; store stock, etc., etc., \$33,000.

—Mr. S. C. Smith, proprietor of the sawmill at Vernon, will shortly move his mill down to the arm of the lake, where he has obtained a two-acre site from the Okanagan Land and Development Co. Its place in Vernon will be taken by a large sash and door factory, which Mr. Smith intends to build near his present mill site; the situation on Long Lake Creek, where he intended to erect it, being found unsuitable on account of the grade of the S. & O. He is now erecting a dry kiln, and has most of the machinery for the factory on hand.

—The lumber trade in the Port Arthur district is reported to be looking up. Large contracts have been let by the Canadian Pacific company for ties, which are being taken out between here and Rat Portage. The trade in cedar for paving blocks, fence posts, telegraph poles, ties, piles, and as square timber for bridges and culvert work is large and unreserved. No less than three firms have camps on the line of the Port Arthur, Duluth and Western Railway, which are expected to cut 8,000,000 feet of pine, which will be sawn in the district, for the trade of Manitoba and the Territories.

—Mr. J. A. Ouimet, Minister of Public Works, has been interviewed by a deputation of lumbermen made up of Messrs. A. F. Marsh, barrister, Toronto, representing the Spanish River Lumber Co., and D. L. White, of the Saginaw Salt and Lumber Co., who were accompanied by Messrs. Tyrwhitt, Masson, Fairbairn, Ferguson (Leeds), Madill and Northrup, members of the House of Commons. They asked for a reduction of tolls on the slides on the Spanish River in Algoma. The lumbermen are working under a provincial charter on the Sable River, which is under the control of the Ontario Government, and under a Dominion license on the Spanish River, which, being navigable, is under federal control. The firms represented were Messrs. Sibley & Barringer, the Saginaw Lumber Co., Tough & McConnell, Burton & Bro., Beck & Co., the Cheboygan Lumber Co., Cook & Bro. Lumber Co., the William Thompson Lumber Co. and James Hagar. These firms are said to represent several millions of United States capital invested in lumbering. Mr. Ouimet promised the deputation that its representations should have the best consideration of the Government.

QUEBEC.

—The Harbor Commissioners of Montreal have awarded the contract for 300 boxes for dredging and 50 construction cars to the Rathbun Company, Deseronto, Ont. The contract for the pile-driving engine and boiler was awarded to John Doty Engine Company, Toronto.

—The extensive and valuable estate on the St. Maurice River, Quebec, of the late George Baptist Sons & Co., lumbermen, has been purchased by Alexander Baptist, of Three Rivers. That gentleman proposes erecting a large steam mill on the site of the old mill on Baptist Island, to be operated by July next.

—A big deal has been consummated between E. H. Lemay, of Montreal, and Messrs. Gillies & Bros., by which the former secures the entire output of the Braeside mills, in the Ottawa district, for the season of 1892. This will mean the handling of about 30,000,000 feet of lumber, and will involve \$450,000. Most of the lumber will be sold in England and South America.

NEW BRUNSWICK AND NOVA SCOTIA.

—Lea's wood-working factory at Moncton, N.B., has been burned. Loss \$20,000; insurance light.

—The price of lumber has fallen so in the West Indies that a St. Mary's Bay, N.S., lumber merchant intends to discharge his vessel which was almost ready for sea.

—John McDonald, a young lad, son of Donald McDonald, of Dunmore, South River, N.S., while attempting to make his way home from a lumbering camp through a recent snow storm fell over a bank and was buried in the snow, where he remained unconscious until some time through the night. Strange to say, he finally made his escape none the worse for his exposure.

—The Robb Engineering Co., of Amherst, N.S., are setting up one of their new automatic engines "Robb-Armstrong" pattern, for the Canada Electric Co., of the town.

—Advices from Nova Scotia state that Huntley and Epps have been doing some tall work with their rotary sawmill in the woods at Lakeland. They sawed 140,000 feet of lumber last week, an average of 23,333 feet a day. A report was recently published in several of the weekly papers that C. F. and F. R. Eaton had sold their timber land at Eatonville. The report was a little premature, for although they were making negotiations for the sale of their property at the time, they have since decided that they will not sell. They will not get out any logs this winter, but after this season they will cut about 5,000,000 feet a year.

—The lumber cut of the upper St. John River and its tributaries in New Brunswick is expected to reach 120 or perhaps 130 million feet. At any rate this is the estimate made in a special to the St. John Sun, after enquiry from reliable parties. Among the principal operators are the following: Dunn Bros., who will cut about 6,000,000 feet; Hale & Murchie, about 8,000,000 feet; Robert Conners, say 6,000,000 feet; John A. Morrison, who is putting in a large amount of cedar, about 5,000,000 feet; W. H. Cunliffe, about 5,000,000 feet; Nixon Bros., about 3,500,000 feet; Kilburn & McIntosh, probably 5,000,000 feet. In this estimate is not included the large amount of lumber cut on the Melusnakik by F. Moore & Sons and A. H. Sawyer.

—A lumber case of some interest is before the courts at Digby, N.S. The plaintiff is one Hogan and the defendant Gates & Son. The plaintiff sues for the price of goods sold and claimed \$6,788; the defendants put in an offset amounting to \$7,259, thus claiming a balance from the plaintiff. The action was one for the price of timber and camping utensils, the plaintiff's case being that he and the defendants entered into an agreement that he should enter upon the lands of the defendants and cut timber and afterwards saw it at the mills of the defendants, paying fifty cents a thousand stumpage and \$4 a thousand for the use of the mill. In the fall of 1885 the plaintiff entered on defendants' lands and continued to operate there until the spring of 1888, during which time the defendants supplied him with provisions, etc., when the defendants sent men in and took charge of the camp and drive, and stated that if the plaintiff would leave everything as it was they would pay for it. The plaintiff followed that course, but was at length compelled to bring this suit. The defendants on the other hand claim now that the agreement was that the plaintiff should pay from \$1 to \$2 and upwards a thousand, stumpage, and fifty cents for the use of the mill, the lumber to be manufactured by them for the plaintiff, and the proceeds, if any, after paying all expenses to go to the plaintiff. The case has excited considerable comment among lumbermen and those engaged in the lumbering trade in the western countries, and the referee's report, which, under the order of reference, shall be filed by March 10, is awaited with keen interest.

BRITISH COLUMBIA.

—C. M. Hanks, Detroit, is erecting a sawmill at Mission. Daily capacity 100,000 feet.

—Over a million feet of logs have been cut at the Sillovet River camp of the Brunette sawmills.

—Twelve new boilers for the Moodyville sawmill have been built by the Albion Iron Works, Victoria.

—The Round Prairie Logging Co. have cut and banked 250,000 logs at Brewer's mill, at Armstrong.

—Building operations are already beginning at Nelson. The prospects for a heavy summer's work are very promising.

—McLaren-Ross Lumber Co. has made preliminary survey of tramway line from its timber limits on Cultus Lake to Fraser River.

—The Royal Canadian Packing and Milling Company, Victoria, is building a sawmill and cannery on the Skeena River, which will be in operation very shortly.

—A party, composed principally of members of the Mississippi Valley Lumbermen's Association and their families, paid the province a visit the other day, being part of a trip which takes in the whole Pacific coast.

MANITOWA AND THE NORTHWEST.

—J. Y. Turner, lumber, Melita, has sold out to Campbell & Ferguson, and is moving to Carmouche.

—Martin & Young, lumber and builders, Cypress River, Man., are succeeded by Fred Young in furniture business.

The timber of the Saskatchewan districts is said to be lighter than that further north, towards the Athabaska, where a very fair quality of spruce timber abounds. The construction of the Calgary and Edmonton Railway has opened up a magnificent stretch of country, which heretofore has been sparsely settled. Already a large number of ex-Dakotians have settled there.



—In 1891 Seattle used 6,630,000 feet of lumber. Tacoma consumed 9,515,552.

—Over 2,000,000 feet of logs have been received this winter by rail at C. C. Barker's mill, Bay City, Mich.

—The Crosby Lumber Co. have purchased 47,000 acres of timber land in Graham County, North Carolina.

—It is reported that H. W. Sage and Company's mill at West Bay City, Mich., will not start before July 1.

—Vast quantities of white oak are destroyed each year in the Southern States to make way for tobacco and cotton.

—Buffalo and Tonawanda's receipts for 1891 were 768,241,000. The receipts for 1890 were, in feet, 1,004,984,900.

—The British Secretary of State for War invites tenders for the supply of English and foreign timber during the current year.

—A new bill for the regulation of United States forestry interests is to be submitted to the present Congress now in session.

—Merrill & Ring's new mill at Duluth will be ready for operation early in the spring. The firm owns timber enough to keep the mill running ten years.

—Howard Watson, the well-known commission lumber dealer of St. Louis, sold in 1891 20,448,250 feet of lumber, 14,633,046 of which was yellow pine.

—Michigan lumbermen are buying considerable timber in Arkansas. One recent sale was 3,500 acres to Hovey, McCracken & Co., of Muskegon, Mich.

—The Jarry wood of Australia is hard and durable as oak. It is well adapted for panelling and carving, and is destined to be much in favour with church builders, owing to its rich deep mahogany color.

—Washington will spend \$65,000 on its State World's Fair building, and all the lumber and quarry material necessary for its construction will be donated by the lumbermen and quarrymen of the State.

—The amount of yellow pine received in New York during 1891 is given as 242,216,552 feet, being 302,851 feet less than the receipts for 1890. The falling off of receipts is not as large as was anticipated.

—The J. R. Davis Lumber Co. is running twelve camps on the head waters of the Chippewa, Mich. The company employs 450 men and it is estimated will pay out \$200,000 for the expense of the winter's work.

—A local paper calls Florida the best timbered State in the Union. Out of about 38,000,000 acres, only 3,000,000 are included in farms, the remainder, exclusive of the area covered by lakes and rivers, being covered with heavy forests.

—The manufacture of wood pulp has become one of the most important trades of Sweden. According to recent reports, that country has over 120 wood pulp factories, about half of which have been started during the last three years.

—Weather in the Duluth district is giving satisfaction to loggers. Hauling is being pushed at all speed and the half-way mark is well passed. It looks as if the winter would end with more logs hauled than the loggers had generally expected when the season began.

—The latest and largest load record from the logging camps is from a Michigan camp, where a load of forty-four logs, scaling 15,400 feet was hauled three miles by one team. It is to be hoped that no logger will attempt to outdo this record. There is no economy and less humanity in thus overloading teams.

—The lumbermen of Wisconsin are not daunted by the absence of snow on which to haul their logs. Near La Crosse the loggers are using dynamite to break up the ice in the river, large blocks of which are hauled up to the roads, chopped up, spread in two narrow lines watered by the sprinkler, and frozen into a solid mass.

—The Everton Lumber Co., the mills of which are in the town of Santa Clara, Franklin county, N.Y., has exchanged with the State 25,000 acres of timber land in Hamilton county for 11,000 acres in Santa Clara and Duane, Franklin county. The Hamilton county lands were logged years ago, but are still covered with a fine growth of hardwood and some soft timber. The Franklin county lands are covered with virgin forests, and will afford a supply to the Everton mills for four years.

—A Chicago clergyman is said to be preaching practical temperance to the lumber yard men of that city by driving to the yards every day at noon with a wagon containing a cabinet organ and a tank of hot coffee. Music and coffee are furnished free. This proceeding cuts off a large "can" trade formerly enjoyed by the neighbouring saloons.

—The destruction of the pine timber by a small insect, which some call the pine weevil, will be almost total in some sections of Virginia. It is not confined to scrubby trees alone, but some of the best timber is going, and millions of feet will be dead in a short time. Much will be saved by steam sawmills, but there are not mills enough to save all.

—What is said to be the largest piece of white oak timber ever sawed to order and shipped to the New York market was received by Messrs. Roberts and Case, of 62 Broadway. The stick measured thirty inches square and fifty feet long, and contained 3,750 feet, board measure. The estimated weight by the railroad standard was 22,500 pounds. The trunk of the tree from which it came was three and a-half feet in diameter fifty feet from the ground. The stick will be used about a dredging machine.

—Forest vegetation is much richer in North America than in Europe, and comprises 412 species, of which 176 are native to the Atlantic region, 106 to the Pacific, ten are common to both, forty-six to the Rocky Mountain region, and seventy-four are tropical species near the coasts of Florida, as against 158 species in Europe. Six North American species of forest trees—the Judas tree, persimmon, hackberry, plane tree, hop hornbeam and chestnut—are also indigenous in Europe, all now growing there naturally south of the Alps.

—Logging operations in the northern portion of Minnesota are being pushed with all possible haste. On the southern edge of the timber territory work has been greatly hampered by excessively bad weather, and farther north considerable difficulty has been experienced because of bad roads. It is confidently believed that unless the mercury should take a drop very soon, the days for logging are numbered. Reports from northern Wisconsin indicate a similar condition of affairs there. Local lumbermen will require at least three weeks to reach their expected output.

—The Cloquet Lumber Co., of Cloquet, Minn., is engaged in hauling the material for a logging railroad that will ultimately become quite an important factor in the development of the vast timber and other resources of the northern part of the State. It will eventually reach the international boundary at the head of Lake of the Woods, and will tap the great timber district north of the Mesaba belt and lying between ranges four and twenty, west. In this area is estimated to be 15,000,000,000 feet of standing pine, all of which immense quantity is now unavailable for any mills except those on the Canadian Pacific. Some of the finest farming lands of the Northwest are also in this area, and they are being rapidly settled, over 500 homesteads having been taken there in the last three months.

—A Maine dispatch, dated from Portland, says: Business for the week has been fairly good; salesmen report an increased demand for frames, and prices are a little firmer. All the mills are sawing and all have plenty of orders. The retail trade, too, is unusually good, a large part of it being new work. One large concern has had to employ outside teams to do the extra carting. The two vessels loading for the River Plate prevent total stagnation in export trade. In the West India line shippers say that they cannot make anything on lumber at present prices, and therefore they will not send any. Off-shore freights are scarce and unremunerative, and coastwise business is light, with double the tonnage offering that is required. Large trains of box and hemlock boards have been shipped from Bangor.

—A despatch from Alpena, Mich., says: We have now had over three weeks' fine logging and every prospect of a full stock for all the mills that will run this season. Two mills have gone out of commission, which will reduce the output of Alpena 25,000,000 feet. Two more finish next summer. The balance have several years' stock. The attention of the mill owners is being turned to hardwood. Alger, Smith and Company, Comstock Brothers and F. W. Gilchrist will manufacture several millions of finest red oak, some ash, elm, basswood and American satin wood, all of which find ready sale. There is quite an activity in the lumber market, several purchasers arriving daily. Nearly all of the lumber wintered has changed hands at better than last fall's prices. Preparations are being made to tow Canada logs here. Our nearness to the Georgian Bay makes this one of the most available points for the manufacture of Canada lumber. A large amount of cedar posts, hemlock, tamarack and cedar ties arrive daily. It is estimated that over 2,000,000 pieces of cedar will be on the docks and in the river for summer shipment. The mills are being repaired, and soon the hum of the saw will take the place of the oppressive silence of a lumber town when manufacturing has ceased.



—Mr. C. H. Clark, of Burton Bros., Barrie, was a caller at the LUMBERMAN office this month.

—The LUMBERMAN received a call a few days ago from Jos. S. Wallis, the sawmill operator, of Port Carling, Ont.

—Mr. David Maclaren, a son of the late James Maclaren, who was president of the Bank of Ottawa, has been elected a director of that institution.

—Mr. J. R. Booth, of Ottawa, Ont., has presented each of the members of the champion hockey team a handsome gold medal as a memento of their victories this year.

—Hon. E. H. Bronson, M.P.P., the extensive Ottawa lumberman, has, on the advice of his physicians, gone to Hot Springs, N.C., for rest and recuperation. He will likely remain there for a month.

—The LUMBERMAN was pleased to have a call recently from Mr. James Dollar, of Bracebridge, Ont., the extensive lumber and shingle manufacturer. Mr. Dollar is mayor of this thriving northern town.

—H. Tudor White, a prominent business man and lumberman, of Windsor, Ont., died at his home in that place on the 23rd ult. Mr. White conducted a lumber and coal business at Windsor for more than twenty years, and was highly respected. He was sixty-three years of age.

Jno. Webb, a well-known builder, of Hamilton, Ont., died a fortnight ago of la grippe. The deceased was born in Hythe, England, in 1842, and came to Hamilton in 1871, since which time he has carried on the building business there. He was a prominent mason.

—Mr. Alex. Fraser, of Westmeath, Ont., is on a business trip to Great Britain. Mr. Fraser is an extensive Canadian operator doing a large business in waney and square board pine timber. He has appointed Messrs. A. F. and D. Mackay, Canada Dock, Liverpool, agents for England and Ireland (London excepted).

—Henry C. Christopher, vice-president of the Clarkson-Christopher Lumber Co., of St. Louis, Mo., and one of the oldest and best known lumbermen in that city, died suddenly on the 29th ult. Mr. Christopher was born in Washington County, Mo., in 1829, and had been engaged in the lumber business about twenty years.

—John B. Drewry, lumber dealer, died at his residence in this city on the 1st inst., at the age of fifty-eight. He was ill only a few days. Deceased was born at Coloung, March 18, 1833. He lived a number of years in Oswego, where he carried on an extensive wholesale lumber business. After living a few years in Napanee he came to Toronto about a year and a-half ago. He leaves a widow, one daughter and five sons.

—Charles H. Waterous, senior partner of the Waterous Engine Works Co., died at his home in Brantford, Ont., on the 10th ult. He was born in Vermont and came to Brantford in 1848. He at first managed the machine shop of Mr. Van Brocklin, but in 1855 bought out his employer, and from that time until 1877 had the concern under his direct supervision. The business assumed large proportions, and in 1877 it was formed into a company, the sons of deceased sharing the control with him. Mr. Waterous was born in 1814, and was therefore 78 years of age at the time of his death. He was married in 1839. Mrs. Waterous and one son pre-deceased him. There are six children now living, J. E. Waterous, Ald. C. H. Waterous, David Waterous, of Brantford; Mrs. Agnew, Montreal, and Fred and Frank, who are connected with the branch works at St. Paul, Minn.

—Mr. Gordon C. Edwards, who has been connected with the firm of W. C. Edwards & Co., of Rockland, for three years, and the Canada Lumber Co., of Carleton Place for four years, has been admitted as a partner into the Ottawa Lumber Co., of Ottawa, in which firm he now occupies an active position. Mr. Edwards is a son of Mr. John Edwards, of Ottawa, who retired from active business in 1888 but who is one of the owners of the above-named companies, and nephew of Mr. W. C. Edwards, of W. C. Edwards & Co., and A. H. Edwards, managing director of the Canada Lumber Co. Mr. Edwards was made a director of the Canada Lumber Co. in 1891 and a director of the Capital Planning Co., of Ottawa, in the same year, in both of which companies he still controls an interest. We take much pleasure in tendering to him our best wishes in his new capacity, and hope that the Ottawa Lumber Co. shall meet with even greater success in the future than it has done in the past.

TRADE REVIEW.

Office of CANADA LUMBERMAN, Feb. 29, 1892.

THE GENERAL SURVEY.

THE quietness that is peculiar to February in every branch of trade has held complete control of the lumber trade during the month. Things have been jogging along in an easy-going sort of way, so far as the city trade is concerned, dealers waiting to see how business will open out with the opening of spring. It is no ways likely, outside of the public works now under construction and the larger mercantile concerns that are engaged, or may engage, in building operations, that trade will be over brisk. The opinion grows with the experience of the months that there is no call just now for general house-building, so that for a few years, at the shortest, the speculative builder must seek other fields, or a change of vocation. The local situation has been comparatively free from financial disturbances until the close of the month when the announcement was made that Gall, Anderson & Co., of the city, builders and lumbermen, had been obliged to seek relief from their creditors. The liabilities are estimated at \$75,000, and the assets are assessed at a nominal value of \$110,000, leaving a surplus of \$35,000. The reason of the firm's present trouble is attributable to the fact that certain parties have recovered judgment on the covenants in certain mortgages on property held by the senior member of the firm, who had parted with the same some time ago, and owing to his inability to realize upon the property given to secure the claims, and the general depreciation of property held by them in the city, they have been compelled to consult their creditors. It is understood the Quebec bank is the largest creditor, secured. An extension of time will probably be granted.

Trade in the country districts during the month has been disturbed to considerable extent by the many bye-elections that have taken place. "Nothing but politics doing here" has not been an uncommon reply to the stock enquiry, "how is business?" We may expect, however, that very shortly a turn in matters will assert itself. There is likely to be a fair trade done in lumber this spring. Farmers have been putting off building in not a few cases where building was a necessity for years, because of the "hard times"; with the good harvest of the past fall they still held off, the season as a rule being well advanced before they had realized on their crops: this intended building will now be done in the spring.

Our review of trade in the several provinces of the Dominion is given below and so of the United States and foreign markets. From a large number of special reports that the LUMBERMAN has received from different parts of the province there is no question that the trade in Canadian lumber with the United States shows an unmistakable increase. This remark applies not only to pine, but also to hardwoods, which find a growing market across the border. We simply note the fact as it comes to us over the signatures of responsible firms "east, west, north and south," in answer to the plain question: "Is trade with the United States on the increase?" The individual reader may draw his own inference.

NEW BRUNSWICK.

The month has been one of stillness in the Maritime provinces. It is yet doubtful how logging operations will come out this season, the weather not having been as propitious for lumbering as was expected. With an improvement in the English market the hope is that an improved trade will soon be observable in lumber circles at this side.

QUEBEC.

There is little, if anything, to add to the very full review of Quebec trade that was given in the last issue of the LUMBERMAN. Realizing that the restrictions of the McKinley Bill against spruce constitute at least one of the difficulties that the timber trade of this province is obliged to fight, it is expected that the lumbermen and manufacturers interested in spruce and pulp will hold a meeting at an early day, probably in Montreal, when this matter will be fully gone into, and, if possible, some practical proposition to overcome the trouble planned.

MANITOBA.

The leading millmen are quite satisfied in their own minds that an increased trade in lumber over anything yet done in the provinces will be the record of the opening season. Building operations will be active among the farming population, the splendid harvest of the past season, the results from which will really be seen during the present year, more than in the past, placing them in position to build new barns and enlarge the old ones. The lumbermen will reap the benefit of these conditions.

BRITISH COLUMBIA.

The monthly letter of our British Columbia correspondent published in another column carries with it the impression that the outlook for the season's trade on the Coast is encouraging. Immediate trade is not over brisk, but this is not to be expected. The preparations being made both for export and home trade are on a scale that evidences confidence in the future. A proneness to cut prices on the coast, more particularly in bidding for local trade, is an evil, that unless early nipped, is very certain to ultimately lead to unhealthy consequences. At least this is the history of a like custom in other places, and we apprehend that results would hardly prove any different in British Columbia. To illustrate to the lumber trade in the other provinces of the Dominion where British Columbia lumber goes, in part at any rate, we append here a table of shipments of the Moodyville Sawmill Co., (Ltd.), for the year 1891:—

Table with columns: Dressed Feet Pick, Kilbs., Lath, Kough, Tons. Lists various lumber types and quantities.

Table with columns: Shipments by Destination, Vessels. Lists destinations like Corowal, Shanghai, etc., and vessel names.

UNITED STATES.

A careful scrutiny of the markets of the United States tells quite distinctly of a shortage of important stocks like pine at nearly all the leading lumber points. Our Albany report is that in the better grades of pine, especially, stocks are already running below the demand and dealers are asking themselves anxiously what will be the conditions two months later when the demand will be largely enhanced. This circumstance is showing itself in a stiffening of prices everywhere and in an advance in price at some points. From this view the opening season looks encouraging for the lumberman; light stocks and a good demand are favorable conditions. The weather in Michigan and Wisconsin has not been very helpful to logging, and we learn that "an early termination of hauling in the southern half of the Michigan and Wisconsin fields of operation, with some restriction of the season in the Upper Peninsula and Northern Wisconsin," are likely factors of the season's work. At some places the input will be completed early this month. There won't be a plentitude of logs, at the same time it is expected there will be enough, and possibly a few to spare. A healthy state of trade is the record

that comes from Philadelphia, where hardwoods are in urgent request.

FOREIGN.

For all of a year the foreign field for lumber has been beset with discouragements. Trade in Great Britain could hardly have been more sluggish. Australian trade experienced a general financial collapse. South America had burdens of no small dimensions to handle. Chili was kept busy with internal troubles, fightings within, in fact, and fightings without. So that at every outside point whatever else was abundant there was no business there. The spring of the new year approaches with not a few of these barriers to trade removed, or in course of removal. Lumber in Great Britain is undoubtedly looking up. The market may not prove as buoyant throughout the season as the more sanguine just now predict, but there will not be a like deadness in trade to that of a year ago. The turn has seemingly come in South America. The process of advancement to extended operations calling for large supplies of lumber will necessarily be slow, but it will be steady, and, we think, continuous. The Australian trade does not yet show any remarkable signs of revival, and it will hardly prove a fruitful field of export from this side of the water for some time. With Chili business is improving. The betterment of conditions at any of these points means a betterment of trade in Canadian lumber.

TORONTO, ONT.

Toronto, Feb. 29, 1892.

Table with columns: CAR OR CARGO LOTS, Lath, No. 1, Lath, No. 2. Lists lumber types and prices.

YARD QUOTATIONS.

Table with columns: Mill cull boards and scantling, Shipping cull boards, Scantling and joint, Cutting up planks, Dressing blocks, Picks Am. inspection. Lists yard items and prices.

MONTREAL, QUE.

Montreal, Feb. 29, 1892.

Table with columns: Pine, 1st qual., per M \$35, Pine, 2nd, Pine, shipping culls, Pine, 4th qual., deals, Pine, mill culls, Spruce, Hemlock lumber, Hemlock timber, Ash, Basswood. Lists Montreal prices.

ST. JOHN, N.B.

St. John, Feb. 29, 1892.

Table with columns: Spruce deals, Pine, Deal ends, Scantling, SHINGLES, CLAPBOARDS, FLOORING, DRESSING, MISCELLANEOUS. Lists St. John prices.

OTTAWA, ONT.

OTTAWA, Feb. 29, 1892.

Table listing lumber prices in Ottawa, Ontario, including pine, mill culls, and shipping costs.

QUEBEC, QUE.

QUEBEC, Feb. 29, 1892.

Table listing lumber prices in Quebec, Quebec, including white pine and various grades.

Table listing lumber prices in Quebec, Quebec, including white pine and various grades.

Table listing lumber prices in Quebec, Quebec, including white pine and various grades.

Table listing lumber prices in Quebec, Quebec, including white pine and various grades.

BOSTON, MASS.

BOSTON, MASS., Feb. 29.—There is very little of importance to be noted of lumber matters at the Hub.

Table listing lumber prices in Boston, Massachusetts, including western pine and various grades.

Table listing lumber prices in Boston, Massachusetts, including western pine and various grades.

Table listing lumber prices in Boston, Massachusetts, including western pine and various grades.

Table listing lumber prices in Boston, Massachusetts, including western pine and various grades.

OSWEGO, N.Y.

OSWEGO, N.Y., Feb. 29.—No occasion arising for complaint of trade at this point.

Table listing lumber prices in Oswego, New York, including white pine and various grades.

Table listing lumber prices in Oswego, New York, including white pine and various grades.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including mill run, mill culls, and various grades.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., Feb. 29.—The scarcity of many of the better grades of pine lumber is a subject of no little comment here.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including white pine and various grades.

Table listing lumber prices in Buffalo and Tonawanda, N.Y., including white pine and various grades.

ALBANY, N.Y.

ALBANY, N.Y., Feb. 29.—The business of the month has certainly been very satisfactory for the season of the year.

Table listing lumber prices in Albany, New York, including white pine and various grades.

Table listing lumber prices in Albany, New York, including white pine and various grades.

SAGINAW, MICH.

SAGINAW, MICH., Feb. 29.—The indications point to an early spring; we are hoping for it, for it cannot be gained that so long as we remain closed in with winter's mantle.

March winds, business is held by the contagion and keeps to close quarters. As regards trade of the month it has been slow.

Table listing lumber prices in Saginaw, Michigan, including finishing lumber and rough lumber.

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NEW YORK CITY.

NEW YORK, Feb. 29.—Just as everyone is planning for what is anticipated will be a good year's business in building lines, we are confronted with a possible indication of renewed trouble among the workmen.

Table listing lumber prices in New York City, including white pine and various grades.

THE PENCIL CEDAR INDUSTRY.

THE pencil cedar trade is developing very rapidly outside of the territory that formerly supplied the demand, notably Florida.



ONE of the best known lumbermen that travels this province is Geo. Cormack, Sr., of Whitby, Ont. He has been engaged in the lumber business for over a quarter of a century and the biggest half of these years has been spent on the road in the interests of various lumber concerns having their headquarters in the neighborhood of the Georgian Bay. I have regretted to learn that of late years friend Cormack's health has not been as rugged as in years gone by and that latterly he has found it desirable to take life more leisurely. His place on the road is ably filled by his son George, who is a chip of the old block, and is energetically following up the business so successfully planned and developed for years by his worthy sire. I had the opportunity of a chat with the junior George a few days ago. As with the father of old he is constantly on the go; trade, he says, is good; and their shipments of lumber to the United States constantly on the increase.

* * * *

ELL has pleasure in introducing to LUMBERMAN readers this month Mr. Meaney, manager in this city for Robt. Thomson & Co. At not unfrequent intervals Mr. Meaney has talked to lumbermen through the medium of this page, and always with a purpose and to the point. He was born in St. Louis, Mo., in 1860, but removed to Toronto with his parents when quite a child. At the age of thirteen he started out to fight the battle of life, becoming message-boy in the offices of the old Northern railway. Part of his work was to deliver way-bills to the merchants of the city, and among these to many lumbermen, little thinking then that in later years he



would himself become active in lumber circles. He railroaded ten years, for two years occupying the position of travelling auditor. Give me a man who has spent a decade of years in active railway work, and put him into any other department of business, I care little where it is, and you have a hustler. In 1883 Mr. Meaney associated him-

self with the Hamilton office of Robt. Thomson & Co., throwing into his new vocation all the energy that we have intimated is born of railroading. His energy is reflected in the success of the Hamilton office, and in 1889, when the firm desired to establish a headquarters in this city, as well as Hamilton, Mr. Meaney was placed here to take charge of the work. I need not add that the business, under Mr. Meaney's management, has been highly successful. Without being posted in the arts of the phrenologist, a glance at the picture before us is sufficient to tell of a man of effort, energetic and capable in his undertakings, shrewd and far-seeing in his judgment of men, and possessed of a bonhomie of disposition that makes him a favorite with all who know him.

* * * *

"Our operations this winter," said Mr. G. L. Thompson (Walters & Co., of Lindsay, Ont., "are in the burnt timber district on the Spanish River. We were one of the purchasers at the sale of the Ontario Government the past fall. Work is active all through that section. We will send our logs to Bay City, Mich. The amount of towing that is being done to the American side is in no way affecting the cut of the mills in the locality. The Spanish River Lumber Co. will send probably 15,000,000 to Michigan, but their mills at home will be kept as busy as ever. There will simply be an extra cut to cover the American shipments. With a fair knowledge of conditions in the Georgian Bay district, I must say

that I do not believe that the local mills are, to any extent worth mentioning, being forced to close down, because of the increased export of logs to the States. Midland is sometimes named as a town that is suffering from this cause. We have this to remember, that the immediate available territory for cutting around Midland is very light. To get at the timber the lumberman must go a considerable distance from the saw, and this means extra expense. For example: cost of towing logs from the mouth of the Spanish River to Bay City, Mich., is \$1.25; cost from same point to Midland, \$1.75, and attended with greater risk because of the treacherous character of the waters along these points. Lumbering will be brisk in the Georgian Bay territories the coming summer."

* * * *

It is the old story that doctors—and lumbermen—differ in their opinions. While our friends—some of them—in the Georgian Bay districts are complaining of the terrible waste of logs in that territory, owing to the large cut by United States firms; and, on the other hand, Mr. Huyett and his friends are crying out against the quantity of logs that are coming into his country from Canada, demoralizing the American lumber trade, we have Americans themselves going home from our lumber territories and saying there is no lumber worth anything over here at any rate. I have given you the opinion of some of these people on other occasions, and now we have Mr. O. E. Elsmore, of Saginaw, Mich., who has been on a trip to the Georgian Bay logging district telling the correspondent of the New York Lumber Trade Journal that "cutting timber there is no great bonanza. He says there is plenty of timber on the market there, but it is short bodied and scattered, the land having a rough and rocky surface, making logging operations both annoying and expensive, with stumpage ranging from \$1 to \$3 per thousand, with Crown charges for cutting and removal to be added." Then, what's all the ado about "American markets for American lumber"?

* * * *

From the town of Midland, Ont., hails the lumber firm of Peters & Cain. I had an interesting fifteen minutes conversation with Mr. Cain a few weeks ago. He tells me that operations in the woods in his section this winter are on a larger scale than a year ago. A considerable portion of the logs cut will be towed to the United States. I enquired if this would not affect the operations of the mills in Midland the coming summer. "As far as I know," said Mr. Cain, "the mills both in Midland and neighbouring points will enjoy a busy season's trade the coming summer. The abolition of the export duty has influenced American operators to make purchases of Canadian limits, and to tow much of the cut to their own mills in Saginaw, Bay City, and other convenient points in Michigan. But this is not lessening the cut of the mills here. The fact is that with the reduction of the duty on lumber to \$1 a thousand the demand from the States for Canadian lumber is on the increase, and we must put in a considerable cut to keep up with this demand. It is true that the mill of the Emery Lumber Co. in our town, which had been operated by Mr. Miscampbell, is closed down. But this is an isolated case. I do not think that the Emery people, when they first contracted with Mr. Miscampbell, anticipated doing any towing to speak of to Michigan. We must remember this, however, that the Michigan mills have the advantage over the Canadian millmen in being able to use the refuse of the cut in their salt works and thus reduce the expense of manufacturing. No doubt this fact influenced the Emery Co. I am certainly in favor of free trade in lumber."

* * * *

Among the callers of the month at the LUMBERMAN office was Mr. S. Burkholder, of Crawfordsville, Ind. His specialty is hardwood lumber, which he ships in large quantities to various parts of his own country, and also to Canada. He is one of your genial Hoosiers, who is after pointers wherever he goes, and is just as ready to reciprocate from out of his own fund of information. Mr. Burkholder says that he would not be surprised to see the Free Lumber Bill, now before Congress, become law. The majority of the House is no doubt in its favor. It might not pass the Senate so

readily, though over-strong opposition is not likely to be shown even there. What of the protests of the lumbermen, backed up by the big convention this month at Washington? "A good deal of that," Mr. Burkholder said, "is on paper. Some of our lumber journals have stirred up all the noise they know how, but the lumbermen of our country, who know the situation, are able to weigh the thing pretty correctly. As to the signatures to the petition, everyone knows how easy it is to get up a petition. It's the old story, 'anyone will sign a petition.' I met a friend the other day, and I remarked to him that his name was on the petition. 'Yes,' he replied, 'I was asked to sign it, and did so, though I do not know that I am opposed to free lumber.' It is true that one reading Mr. Huyett's side of the question only, if they stop there, may get worked up some on the question of "American markets for American lumber," but let the question be viewed in a broad spirit, as it has been by your Mr. Bertram, whose letters I read with interest, and fresh light is thrown on the subject. Certain lumber sections will oppose the bill with all their might, but the farmers of our country want free lumber, and this is the influence that is going to tell on Congress. For my part I am not afraid of freer commercial relations between the two countries, and the lumber industries are not in that crippled condition that the influx of Canadian timber is going to prove their ruin. We don't kill so easily."

* * * *

"He would rather sell lumber than eat his breakfast—almost" is the facetious but significant way an intimate friend has described Mr. Joseph Oliver, of the well-known and successful firm of Donogh & Oliver, Toronto. And some of his customers who have been charmed into buying what they did not want predict that his dying words will be: "Shall I send you that car of lumber?" It must be admitted that this is a fitting description of the man whose particular vocation calls him to sell goods to others in this age of keen competition in every business. Mr. Oliver is the man of the road for his firm and knows his business through and through. Let me give you a few particulars of this popular lumber representative, whom many of my readers know so well, and who will, I think, say that the engraver has given us a "speaking likeness" in the picture of him that adorns this paragraph. Mr. Oliver is the son of Irish parents, and was born at Erin, in the county of Wellington, Ontario, some thirty-nine years ago. His parents removed to Toronto while he was very young, and all his life has been spent here. His education was received in the old Park public school. He served his time as an apprentice to the carpentering trade, and thus gained a knowledge of the uses of lum-



ber which has stood him in good stead since. About nineteen years ago he entered the employment of the late S. R. Briggs, the pioneer wholesale lumber dealer of Toronto, as city salesman. When Briggs retired in 1877 he, with Mr. T. S. McCool and Mr. John Donogh, formed the firm of Donogh, McCool & Oliver, and continued the business of S. R. Briggs with great success. In 1883 Mr. McCool withdrew and the firm of Donogh & Oliver continued, and still stands the storm. Mr. Oliver is a Presbyterian, a prominent Oddfellow, having filled some of the highest offices, never takes anything but "soft drinks," and does not use tobacco in any form; a good man to travel with, it has been suggested, when treats are in order. He takes some interest in public matters and sat for three years as school trustee for St. Thomas' ward. He calls himself a Reformer in politics, though he has not taken any very prominent part. No more popular arrival strikes any of our western towns than Joseph Oliver. He has travelled this ground and sold lumber for fifteen years—who don't know him? He could not give other than a kindly, hearty greeting to any he meets, and on the principle, I suppose, that like begets like, everyone is glad to see him, even though he never "lets up" on his favorite topic—lumber.

CORUNDUM WHEELS.

MOST saw users are familiar with corundum wheels as used on automatic saw sharpeners, and for similar purposes in planing mills and other wood-working establishments. It may interest them to know something about this material.

Corundum is a mineral found in a crystalline or granular state. The most familiar example is emery, so commonly used for grinding and polishing purposes, which is the granular form mixed with a large proportion of oxide of iron in its natural state, and which is found in more sections and in larger quantities than any other form of the mineral.

What is known as corundum is the other, or crystalline form, and is limited in quantity in most of the depositories. It includes in its most perfect and higher varieties such gems as the sapphire, the oriental ruby and the amethyst. Adamantine spar is the brown variety which is used in the mechanic arts, and which is seen in the form of wheels and whetstones. These are made by mixing the fine sharp crystals with an adhesive composition, which is pressed into moulds, where it hardens.

Next to the diamond, corundum is the hardest known mineral, and is the most effective material for cutting away or polishing hard metallic substances. For a long time it was found only in small quantities in "pockets," in various places, and scarcely a ton of it was ever on the market at once. But about a dozen years ago a vein of it was discovered in Macon county, North Carolina, about seven miles from the town of Franklin. This has been developed until the mine now practically supplies the world with the mineral; the output being in the neighborhood of 400 tons per year, and the demand is increasing. Owing to its exceeding hardness, this form of the mineral has largely superseded emery, except for fine polishing. There are many deposits of it in the region about this mine, but as the demand is limited and the one mine can easily supply it, there is no object in opening up others at present.

A PHENOMENAL RIVER.

THE St. Lawrence is a phenomenon among rivers. No other river is fed by such gigantic lakes; no other river is so independent of the elements. It despises alike rain, snow and sunshine. Ice and wind may be said to be the only things that affect its mighty flow. Sometimes almost as phenomenal as the St. Lawrence itself is the fact that there is so little generally known about it. Among all the great rivers of the world the St. Lawrence is the only absolutely floodless one. The St. Lawrence despises rain and sunshine. Its greatest variation caused by a drought or rain hardly ever exceeds a foot or fourteen inches. The cause of this almost everlasting sameness of volume is easily understood. The St. Lawrence is fed by the mightiest bodies of fresh water on earth. Vast as is the volume of water it pours into the ocean, anyone who has traversed all the immense lakes that feed it, and for the surplus waters of which it is the only channel to the sea, wonder that it is not even more gigantic than it is. Not one drop of the water of the five great lakes finds its way to the ocean save through this gigantic, extraordinary and wondrously beautiful river. No wonder that it should despise the rain and defy the sunshine.

WHAT THE PEOPLE SAY.

FEW subscriptions reach the LUMBERMAN office that are not accompanied with words of appreciation from our readers. Many thanks, kind friends. Our constant aim shall be to deserve the success that is so cordially attributed to this journal. We cull a few extracts from letters on our desk at this writing:—

- A first-class paper.—John M. Meyers, East Oro, Ont.
- Send to me paper in the Dominion.—W. J. Mather & Co., Neepawa, Man.
- Well pleased with your paper both as regards the make-up and contents. Harlow & Kenyon, Milton, N.S.
- I did not intend to take the LUMBERMAN this year, but don't know how we can do without it. Enclosed find \$1.00 for renewal.—George M. Palmer, West La Hare Ferry, N.S.
- Your minds the CANADA LUMBERMAN is the best trade journal that we receive. While some of the large American lumber journals are little else than market reports and advertising mediums, we always expect from the CANADA LUMBERMAN a few hours of interesting reading upon subjects of interest, instruction and entertainment to lumbermen, and we are not disappointed. While machinery, dollars and dry kilns are good in their places, we hope we appreciate and are pleased to be able to convey to your good opinion of your successful efforts to make your literary columns instructive and, we hope, beneficial to more than lumbermen.—J. T. Schell (Macpherson & Schell), Alexandria, Ont.

KIND WORDS FOR "THE LUMBERMAN."

WE have to thank the press of our own country and the United States for the many nice things they have said of the CANADA LUMBERMAN on the occasion of entering upon its thirteenth year of publication. Out of a multitude of kind words we select the following:—

- The publisher recognizes the importance of capable editorial management, as much as he does the typographical and mechanical. —Globe.
- A creditable representative of the large commercial interests for which it speaks. —Empire.
- From a journalistic view tells of careful and competent editorial management. —Mail.
- Always taken a front position as a well-conducted exponent of trade interests. —World.
- A first-class paper in its special line. —Trade Review, Montreal.
- Decidedly one of the handsomest trade journals which come to our table. —Canadian Manufacturer.
- From first page to the last a credit to the publisher. Patent Record, Ottawa.
- A very handsomely printed paper. Commercial, Winnipeg, Man.
- Without doubt one of the best trade papers on our exchange list. Commercial Journal, Vancouver, B.C.
- No better craft paper in the Dominion. Colonist, Winnipeg, Man.
- One of the most esteemed and influential journals in the lumber trade. Am. Paper Trade, New York.
- Able and industriously edited. Southern Lumberman, Nashville, Tenn.
- An able representative of the lumber interests of Canada. —Wood and Iron, San Francisco, Cal.
- Evidently annexation is not necessary to make a success of the CANADA LUMBERMAN. —Sawmill Gazette, New York.
- In both typographical appearance and editorial management perfection has been secured. Watchman, Tiverton, Ont.
- Should be in the hands of every wood-worker, manufacturer and millman. —Free Press, Shelburne, Ont.
- At one dollar a year is one of the cheapest journals in America. —Review, Streetsville.
- A faithful guardian of the lumberman's interests. Herald Port Arthur, Ont.
- Most beautifully printed paper in the Dominion. Examiner, Peterborough.
- An exact compendium of all matters of interest to lumbermen; worth double the amount of subscription. Mercury, Walkerton, Ont.
- No industry in Canada is represented by such a well-conducted exponent. —Tribune, Deseronto, Ont.
- A magazine of practical usefulness to all interested in the lumber business. —News, St. John, N.B.
- Lumbermen of the Dominion may well feel proud of it. —Puget Sound Lumberman.

AN ANCIENT ROADWAY.

AN ancient roadway has been discovered at Marshall, Illinois. It is from four to six feet below the surface, and constructed of stone underlaid by pounded sandstone and gravel. Each slab is about twelve feet long, from one to three feet wide, and about two inches thick. It proves that civilization had its hold here long before the advent of the Indians.

SHEEP RAISING IN DAKOTA

is a financial success, as is evidenced by the statements made by prominent Dakotians in a pamphlet just issued by the Chicago, Milwaukee and St. Paul Railway, copy of which will be sent free upon application to J. H. Hiland, General Freight Agent, Chicago, Ill., or to A. J. Taylor, Canadian Passenger Agent, 4 Palmer House Block, Toronto, Ont.

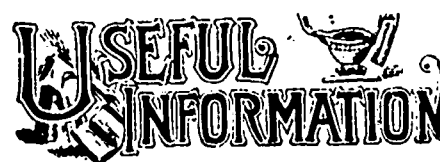
TRADE NOTES.

The Dodge Wood Split Pulley Co., of Toronto, have found it necessary to increase their output by fifty per cent. Their large works at Toronto Junction are now running to fullest capacity ten hours per day, and the company reports a large increase in sales and demand from every quarter. This company also calls the attention of millmen interested in rope-driving to a letter from one of their patrons, which appears in their advertisement on another page, and which speaks for itself.

The celebrated Grip Pulleys of the Waterous Co., of Brantford, Ont., are finding a large sale in all parts of the Dominion. Electricians are strong in their recommendation from the fact that "Grips always remain motionless when out of clutch." Another important feature is the ability to place these pulleys in pairs, saving one foot space on the line shaft to each pair of pulley. They possess special value in driving main circular, edger and special machines in sawmills. During the month the Waterous Co. have shipped to C. B. Wright & Co., of Hull, Que., three pairs of bevel gear "30x7" face wood and iron teeth fitted with grip attachments for throwing in and out of gear without disengaging cogs.

NEW FACTS ABOUT THE DAKOTAS

is the title of the latest illustrated pamphlet issued by the Chicago, Milwaukee & St. Paul R'y regarding those growing States, whose wonderful crops the past season have attracted the attention of the whole country. It is full of facts of special interest for all not satisfied with their present location. Send to A. J. Taylor, Canadian Passenger Agent, No. 4 Palmer House Block, Toronto, Ont., for a copy free of expense.



Many good devices for self-oiling pulleys have been introduced, with different results. The trouble with self-oiling devices is that if a pulley will run successfully for one month without re-oiling, it is liable to be neglected for three, or until the oil is all worn out, then stuck fast to the shaft or become badly cut, then condemned as worthless. In this manner many of the good intentions of the manufacturers are defeated by the neglect and carelessness of the operator.

When power is transmitted from a central engine by shafting, seldom more than 50 per cent. of the power created reaches the machines, so great is the friction of the best shafting that can be made, having the best care and with the best lubrication. For small places and short transmission this may be reduced to 15 per cent., but when extended to a greater distance it eventually comes to 50 per cent. loss, and as the establishment becomes larger the efficiency of transmission diminishes more and more. A line of shafting two miles long could not, it is estimated, be turned from one end; it would twist itself off before you could turn it.

It stands to reason that if we have an engine fairly well made, with all its parts in line and the valves properly set, it will do its work without a sign, save the sign of the exhaust and the "creep" of the belt parting from the back side of the drum. More frequently we meet with engines whose "chug, chug," as they laboriously pound away at their work, seems to be emulating pile-drivers. The influence steam admission has upon the action of an engine, as regards its noise, is well shown at times in some variable cut-off engines. Within a certain range it works noiselessly, but when additional load is put on and the cut-off changes, the engine pounds furiously. A popular remedy for pounding is keying up the connections all round, screwing down the binders on the shaft bearings, or settling up the shocks in the sides of them. In most cases this only makes a bad matter worse; for when an engine pounds from being out of line, the tighter the connections are the harder they bind, and the stiffer they are. Pounding costs money, for it is power thrown away. It is expensive to have a noisy engine, and disagreeable as well. What is easily cured should not be endured.

A sawmill boiler house recently caught fire and had the roof completely consumed. A number of boilers were under steam at the time the fire started, but were saved by the prompt action of the firemen, who pulled nearly all of the fire out of the furnace before they were obliged to leave the building. There were three gauges of water in the boilers when the firemen left. Two of the boilers had cords attached to the safety-valves, by which each valve could be raised from its seat. The remaining boiler had a chain attached to its valve. All three of the valves were opened and fastened in that position before the building was abandoned. The valves to which the cords were attached soon closed, owing to the cords burning away, but the chain held the other valve open. Probably the escape of the steam did considerable to save the boilers by deadening the fire immediately over them. After it was again possible to leave the building, there was nearly one gauge of water left in each of the boilers. They were in good shape and unharmed, although the fitting and steam connections were badly deranged. Every boiler should have a chain fitted to its valve for use in case of fire, but a much better way is to make the roof of the fire room fire-proof by building it of brick arches instead of wood. A few tons of channel iron and a sufficient quantity of iron rods combined with brick and mortar will form a roof which will not burn off.

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Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

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HALF A MILLION FEET OF ASH, MOSTLY one inch, some one-and-a-quarter and one-and-a-half inch Canada Ash, strictly firsts and seconds; must be of uniform color; also commons and one inch Elm, 1 and 2. State particulars as to stock on hand, dryness and lowest prices F.O.B. Montreal, Que.
Furthermore, Red Birch lumber, 1 and 2, all thicknesses, principally 1 and 1 1/4 inch; also Red Birch Squares, 5x5 and 6x6, ten feet and over long, free of splits, a knot now and then allowed.

Address all particulars to
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IN PROSPEROUS TOWN ON GEORGIAN Bay, eighty h.p. engine, modern improvements, capacity 25000 per day, rail and water conveniences, siding to lumber piles. Easy terms. Whole or half interest. Plenty of stock can be bought. Write for particulars. Lock Box 7, Hepworth station, Ont.

WANTED TO CONTRACT

FOR 1 1/2 AND 1 3/4 IN. BASSWOOD, ALL 12 FT. long, quality 1sts and 2nds, New York inspection, to be delivered here in canal boats next summer.

Only responsible parties need apply, stating price delivered.

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FOR SALE: 25 H.-P. STEAM SAWMILL, WITH power cider press and hoop-sawing outfit, with or without stock of lumber. Will be sold cheap. Address LOUIS LUBACH, lot 2, con. 4, Fullerton, Carlingford P.O., Perth Co., Ont.

FOR HEMLOCK, DIMENSION LUMBER, hardwood flooring, cedar shingles, piles, sawdust, etc., write J. E. MURPHY, lumberman, Hepworth station, Ont.

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FOUR LIMITS IN THE NIPISSING DISTRICT, as follows:

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Estimated to contain 80,000,000 feet of merchantable timber, Pine, Spruce, etc.

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BERTH NO. 82, CONTAINING 36 SQUARE miles, situated on the north shore of Lake Huron, within about ten miles of Georgian Bay; well watered, and containing large quantity of pine timber. Has never been lumbered on. Apply to THE GEORGIAN BAY CONSOLIDATED LUMBER CO., Toronto.

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1 12 x 16 WATEROUS DOUBLE CUT-OFF ENGINE with Pickering governors.

1 12 x 16 BECKETT SLIDE VALVE ENGINE with Judson governors.

1 9 x 15 BECKETT ENGINE, SLIDE VALVE.

1 7 1/2 x 10 NORTHY ENGINE WITH PICKERING governors.

1 5 1/2 x 9 HORIZONTAL SLIDE VALVE ENGINE.

2 25 H.P. TUBULAR BOILERS TO BRICK IN.

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1 WATEROUS LATH MACHINE, THREE SWS.

1 SET IRONS FOR TWO HEAD BLOCK SAW mill.

1 30 INCH J. T. NOYE MAKE, BUFFALO, hurr portable Chopper with crane and picks.

1 POWER CORN SHELLER.

1 RESAW BAND SAW, 40 INCH WHEELS, with two 2 1/2 inch saws.

1 BLIND SLAT TENONER.

2 ONE-SIDE MOULDERS.

1 RIPSAW TABLE.

1 CUT-OFF SAW TABLE.

SHAFTINGS, HANGERS, PULLEYS, BELTING, etc., all sizes.

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Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale.

Communications confidential. References given.

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OFFICE, 24 MANNING ARCADE

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Most complete book of its kind ever published. Gives measurement of all kinds of Lumber, Logs, Planks, Scantling; cubical contents of square and round timber; hints to lumber dealers; wood measure; speed of circular saws; care of saws; cordwood tables; felling trees; growth of trees; land measure; wages, rent, board, interest, stave and heading bolts, etc. Standard book throughout the United States and Canada. Get the new illustrated edition of 1882. Ask your bookseller for it. Sent post-paid for 35 cents.

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ALL INSTRUMENTS SOLD OUTRIGHT. ESTIMATES CAREFULLY MADE FOR TELEPHONE OUTFITS

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Lumbermen should send in their announcements for the April LUMBERMAN not later than the 26th instant.

ROBIN & SADLER

Manufacturers: **LEATHER BELTING**

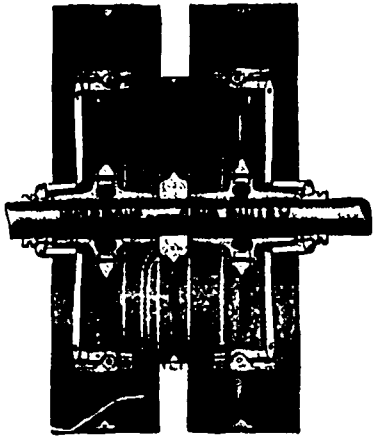
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... COTTON AND GANDY BELTING

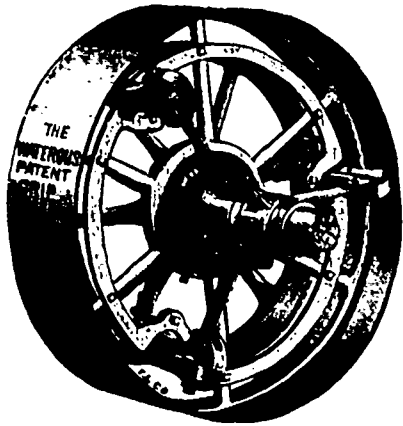
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Sectional View (2 pulleys on 1 grip ring).



A 3-GRIP PULLEY.

MADE WITH 2, 4, 6 or 8 grips, transmitting any power.

W. B. & S. ANGLIN, sawmill, Kingston, write 24th Feb., 1892: "The grip pulley still continues to give good satisfaction and is a good convenience, as we do not have to stop the rest of the mill or throw off belt when filing saw."

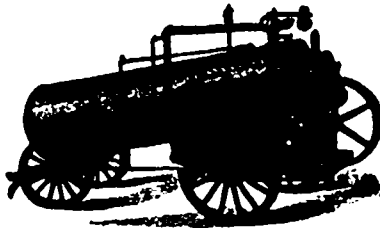
HALL & PRICE, sawmills, Quebec, write Feb. 24th, 1892: "We have been using your grip pulleys for some time, and they give every satisfaction. They are not liable to get out of order and do not require much attention in adjustment."

Our Motto:

Grips always motionless when out of clutch.

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A Sample
of the
many
Letters
received
by us



Messrs. STUART & HARPER,
Agents Dodge Wood Split Pulley Co.,
Winnipeg, Man.

SOURIS, MAN., January 7th, 1892.

GENTLEMEN,---Your favor to hand and contents noted. The Rope Drive you supplied is giving us first-rate satisfaction; better than we expected. We think it will be durable, and it has ample capacity to drive all the machinery in the elevator.

If any of your customers want anything of the kind, just tell them to come and see it work, which will be the best recommendation we can give it.

The elevator works first rate, and the engineer says that he does not know much difference in keeping up steam. We are glad to hear that you are keeping busy.

We are, yours truly,
Signed, McCULLOCH & HERRIOT.

Dodge Wood Split Pulley Co., Toronto

FOR FURTHER INFORMATION
APPLY * * * * *

ESTABLISHED 1876

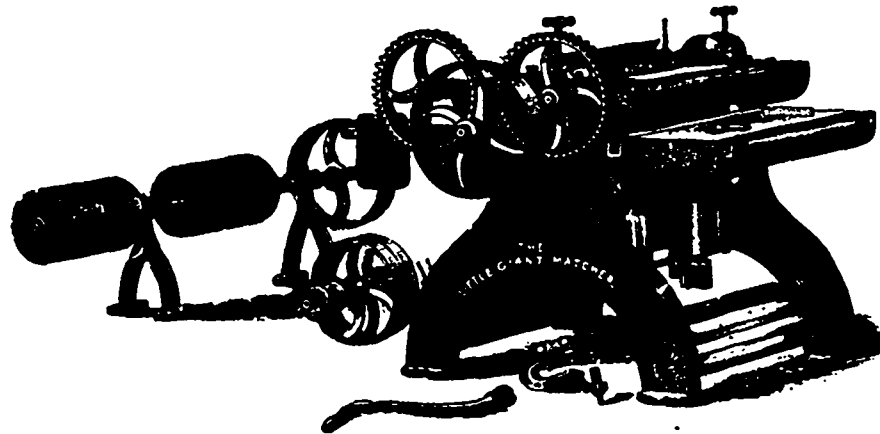
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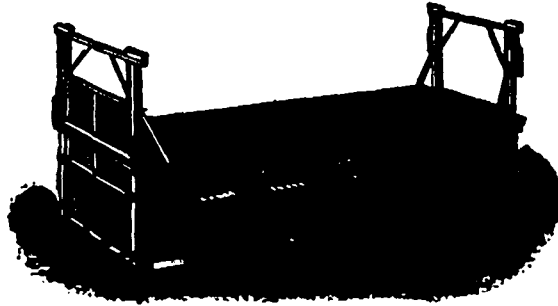
ECONOMY IS WEALTH!

A FIRE-PROOF DRY-KILN

IT SEASONS WITHOUT DESTROYING "LIFE"
OF WOOD

IT SEASONS WITHOUT WARPING OR CHECKING

IT SEASONS WITHOUT WASTE OF FUEL AND
LABOR



Outside View of the Andrews Progressive Kiln

IT SEASONS WITH REMARKABLE RAPIDITY

IT SEASONS WITHOUT "CASE HARDENING"

IT SEASONS WITHOUT DANGER FROM FIRE

OUR PROCESS DUPLICATES NATURE NO FAN! NO ENGINE!

THE SEASONING OF LUMBER.

Artificial Seasoning must be done Rapidly, without injury to the Stock, and with Economy of Fuel and Labor. The Andrews Kiln is the Perfect Lumber-Drier.

ITS remarkable efficiency depends upon its peculiar mode of applying heat to, and eliminating moisture from, the air used in drying. We use no costly fan, engine, or other device that requires constant attention, nor do we waste heat by a special chimney or door. The air circulates through the lumber and the moisture absorbed from it is extracted from the air by natural methods.

PRINCIPLES THAT APPLY:

Water can be taken out of air only by condensation. Air will hold in solution a certain amount of water without its being perceptible to sight or touch. This amount varies with the temperature of the air—the warmer the air is the more water it will receive. When the air has taken up all the water it can take, it is said to be "saturated."

When air cools it deposits its water in the form of cloud or fog, which, if cooled still more, becomes liquid water. The body of air thus deprived of moisture will again readily take up more moisture, and is therefore specially effective for drying purposes. The drying power of the air which enters a drying room is "the difference between the maximum saturation for the highest temperature of the air and its 'dew point' before it enters or becomes heated above initial temperature." The higher the temperature of a drying-room, the cheaper its contents can be dried. When this high temperature is used in connection with air that has been previously deprived of moisture, we have the maximum of efficiency. This very rapid seasoning without injury to the lumber is accomplished only by "The Andrews."

CONSTRUCTION AND OPERATION.

The Andrews Kiln has a hollow inner wall, reaching nearly to the ceiling, and a tight outer wall of sheet metal. The space between these two walls forms a down flue communicating at its foot with a large flue at the bottom of the kiln. Above the openings of the bottom flue are the steam coils which furnish the heat.

The lumber is placed upon cars outside the kiln and rolled in on tracks. The cars stand directly above the coils and close enough to get the advantage of the radiant heat. The air from the heaters passes up slowly through the lumber, taking up moisture from it, and then goes over the inner wall down the side flues to the bottom. On its way down, as it comes in contact with the sheet-metal outer wall, its moisture

condenses on the cool metal and trickles down. By means of small gutters on the inside of the metal walls near their foot, the water is conveyed out of the kiln. The air, having thus parted with much of its moisture, passes through the bottom flue to the coils to be heated again, its comparative dryness now making it more effective than common air for this purpose; yet this air is so tempered with moisture that no "dry heat" comes in contact with the lumber. This circulation goes on continuously. In a few hours after water ceases to flow from the gutters the lumber can be removed.

By this process the lumber is dried in a moist air at a high temperature, and this has been found to give wonderful results. The humidity of the air is so gradually, effectively, and finally rapidly lessened that warping and checking are reduced to a minimum. This continued use of the same body of air, without access of cold currents, saves a large part of the heat.

This kiln does its work perfectly EITHER IN SUMMER OR WINTER. During the warm weather the average temperature in the sun is 110 degrees at noon, and as we never use less than 150 degrees of heat in drying lumber, it will be seen at once that the steel outer wall will always be efficient as a condenser of the vapor in the kiln.

We dry on the CONTINUOUS SYSTEM, that is, putting the lumber in at one end of the kiln, green, and taking it out at the other end dry and properly seasoned. This admits of using cars or trucks, and the lumber can be handled more economically than if simply piled or "sticked" on the floor of the kiln. At each end of the kiln a platform can be built, if desired, the entire width of the kiln. The lumber is loaded upon cars at front end of the kiln. As each car is loaded it is rolled into the kiln and pushed forward. This is repeated until the kiln is filled with cars. When the cars have passed through the kiln and reached the delivering end they are ready to take out and unload upon the rear platform; or they can be rolled upon transfer cars for unloading elsewhere.

All kilns sold are furnished with AUTOMATIC FIRE SPRINKLERS, which do away with any suspicion of danger from fire, thereby lessening fire risk, a point that fire insurance companies have for a long time been trying to impress upon lumbermen and manufacturers of woodwork.

In other systems, when the engine or fan is stopped, both the source of heat and the circulation cease. With a kiln full of green lumber in the process of drying, this stoppage is often the cause of losing the entire contents from mould and mildew. In our kiln, as long as steam is allowed to pass from boiler to kiln, it will work even at a very low pressure. In the construction of the Andrews Kiln much labor and material are saved, as it is of the simplest form. No expensive foundation or separate house for engine, blower and heater is needed. We can guarantee a saving of money in the construction of these kilns over the cost of any built. We furnish all the heating apparatus, piping, iron material and rail.

In our contract we guarantee the seasoning of pine or oak in less time than an competing kiln that leaves the lumber in good condition.

The Andrews Process and Apparatus for Artificial Seasoning of Lumber will Save you Money in every one of the following items:

TIME : CAPITAL : INTEREST : INSURANCE : YARD ROOM : FREIGHT : MATERIAL : LABOR : EXPENSE
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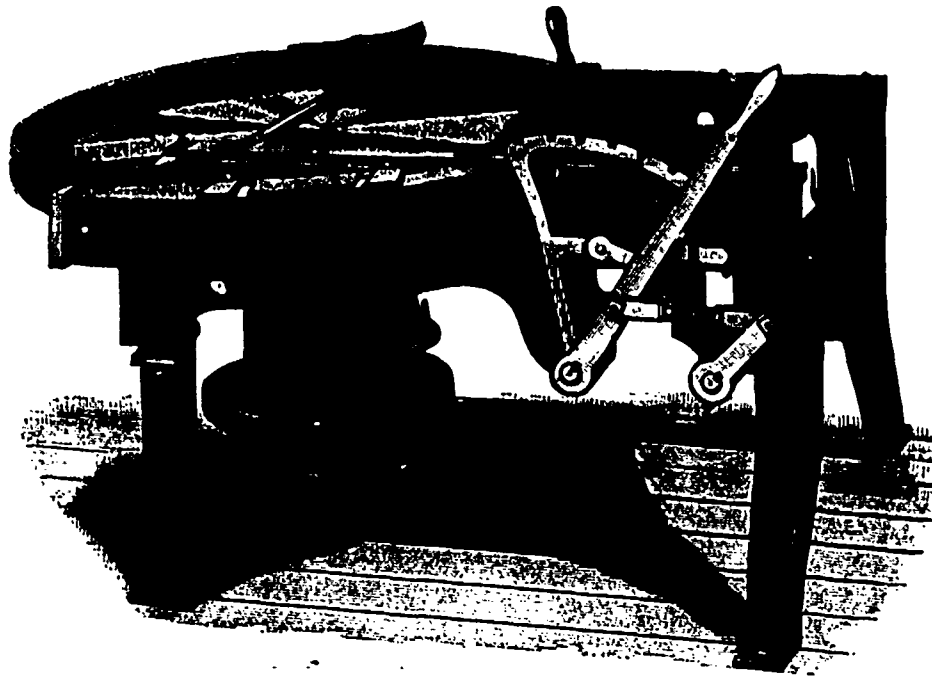
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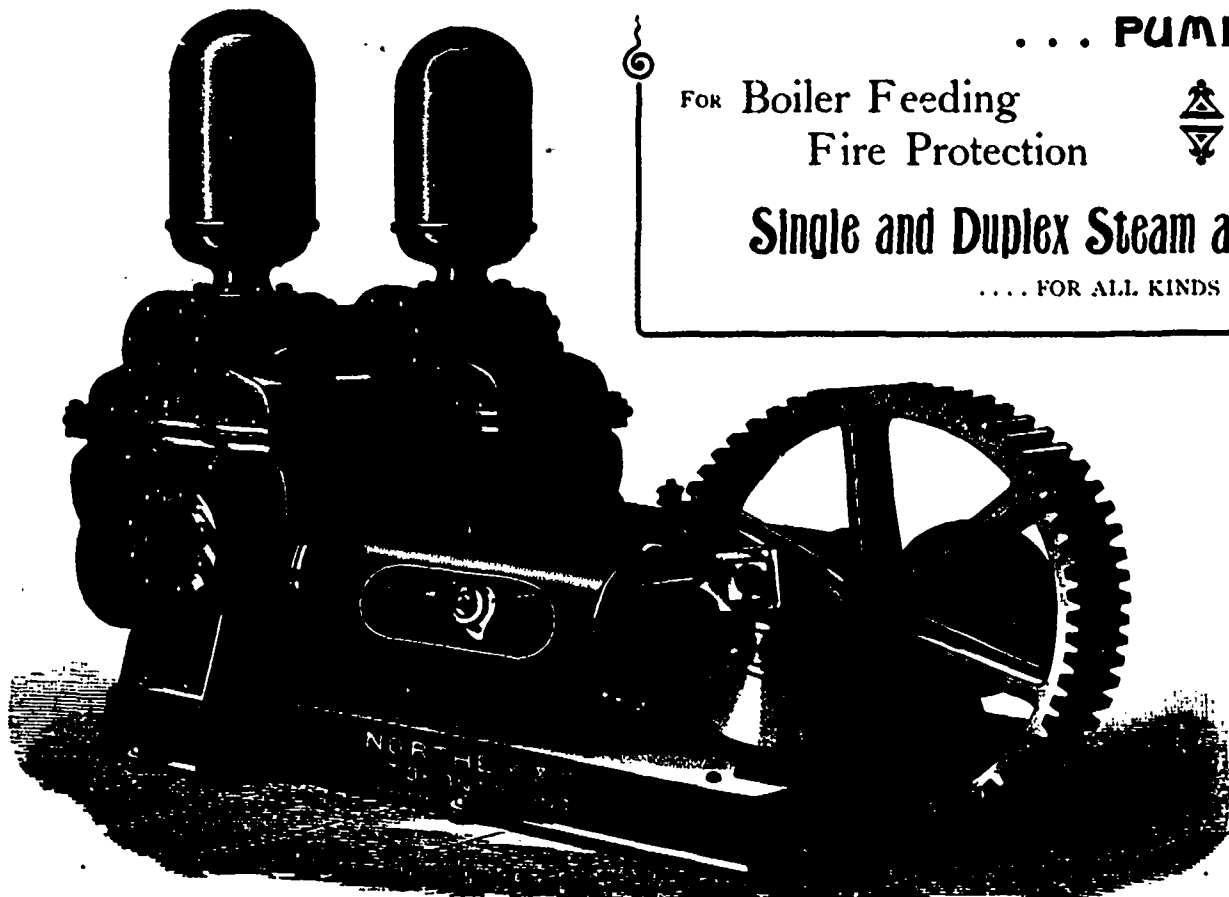
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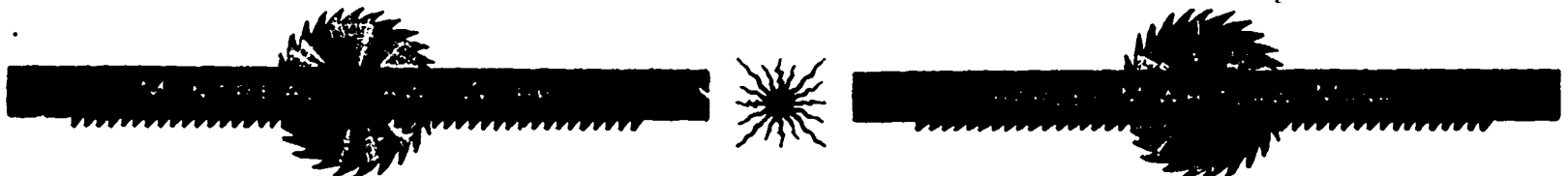


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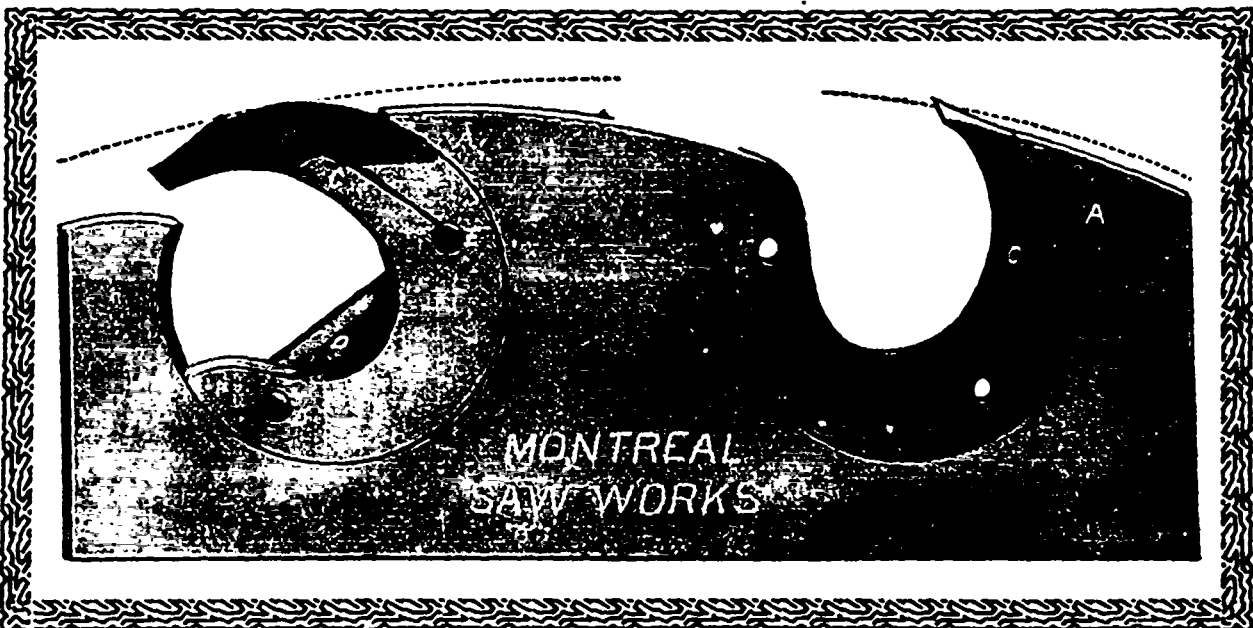


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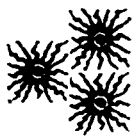
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