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THE CANADIAN LUMBERMAN

WOOD WORKERS' MANUFACTURERS AND MILLERS' GAZETTE

VOLUME XIV. }
NUMBER 6

TORONTO, ONT., JUNE, 1893

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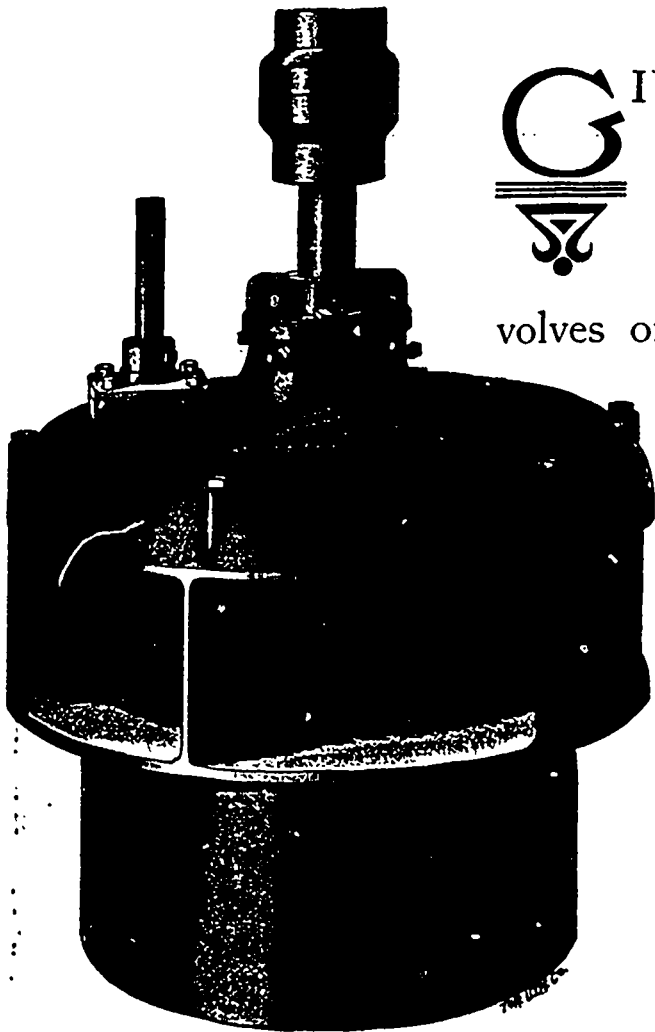
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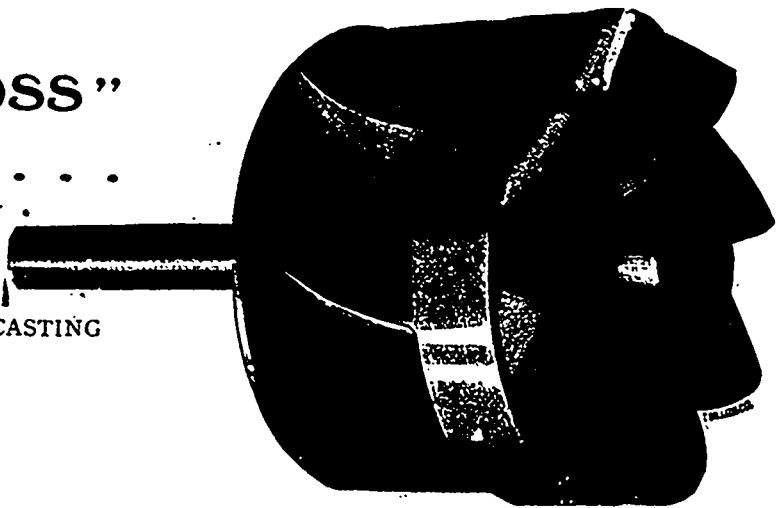
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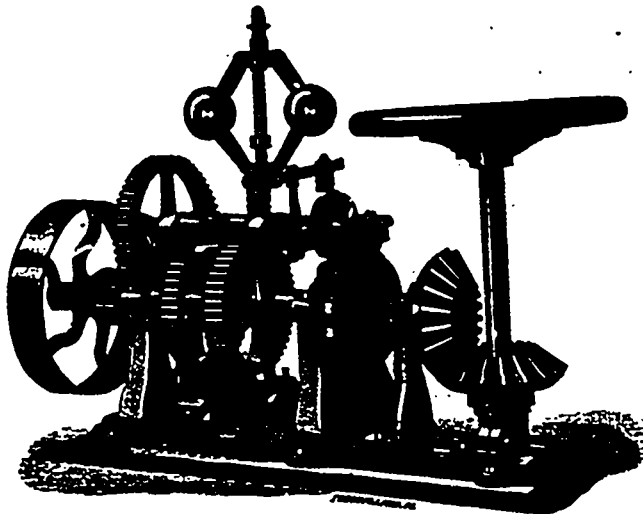
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VOLUME XIV.
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BY THE WAY.

IT is rather more than a year ago since we recorded in these columns the sale of a considerable portion of the Dodge estate in the Georgian bay district to Merrill, Ring & Fordney, of Saginaw, Mich. It will be remembered that the purchase embraced a sawmill, 12,000,000 feet of logs, and 500,000,000 feet of pine. The sum paid was stated to have been \$750,000. Subsequently the American purchasers sold part of the timber, but held 350,000,000 feet, and a late report from Saginaw says that they have now sold this to the Holland-Emery Lumber Company, of East Tawas, the consideration being announced at \$700,000. The expectation is that the timber will be taken to the Holland-Emery mill at East Tawas, though it is probable that the local mill will be utilized for part of cut.

x x x x

Two views of the log duty were brought out in the interview with Hon. Finance Minister Foster and his associates when in the city a few weeks ago. Those concerned in the carrying trade by water were represented by Capt. W. Hall, F. B. Cumberland, J. T. Matthews, Capt. Sylvester, A. M. Smith and W. Keighley, who entered a protest against the free exportation of logs as tending to seriously affect the shipping interests of the country. They pointed out that the effect upon their interests of there being no export duty on logs is shown by the fact that whereas last year only 175,000,000 feet of lumber was exported in logs, there is in sight already 455,000,000 feet for export this year, which may be called the third year of the absence of the export duty. When this lumber was cut in Canada the vessels of the United States had an equal right with Canadians to carry it, and did carry a large share. But now when the logs are towed across and cut in Michigan, Canadian vessels lose the possibility of carrying any part of it. The absence of an export duty, they declared, points to a continual increase of the exports of logs, and eventually the closing of all the large mills in Canada except for home requirements. Mr. A. H. Campbell, of the Muskoka Mill and Lumber Company, asked that the government do nothing in regard to the re-imposition of the duty until the lumber manufacturers have had time to discuss the question.

x x x x

Interest in lumbering at this time of the year centres to no small extent in the work of the drives. Just what trade conditions may be at a later period depends to some extent on the ease with which the lumber comes forward the early part of the season. It looks just now as though there would be few, if any, logs tied up this summer, and any that did not come down last year will be brought forward this season with the new cut. All over these conditions seem to prevail, for heavy rains and large freshets have been universal. In the Ottawa district the danger is from a too great abundance of water rather than too little. In the northern districts plenty of water is not wanting, and encouraging reports are reaching us regarding the drives in New Brunswick. It is believed that all of the logs in that district will come out. On the St. John river it is estimated that over 30,000,000 feet of logs are already in the Douglas boom above Fredericton. R. A. Estey, of Fredericton, who has a large drive on the Tobique, has expressed the opinion that every log on that tributary of the St. John would be got out. Logs are running freely at Grand Falls and coming out of all the tributaries farther up. All the small streams tributary to the Nashwaak are pouring Gibson's logs into the main stream. The St. John river is several feet higher than at any time last season. All the streams tributary to the lakes in Queen's

county, the outlet of which is the St. John river, will be cleared of their drives without difficulty. On the St. Croix, on the Maine border, one drive is running into the booms and those on other small tributaries of that river are well along. In Albert county the drive of C. and I. Prescott is all out into the main stream. On some of the streams men are being discharged, as the high water enables the logs to be got out with much smaller crews.

x x x x

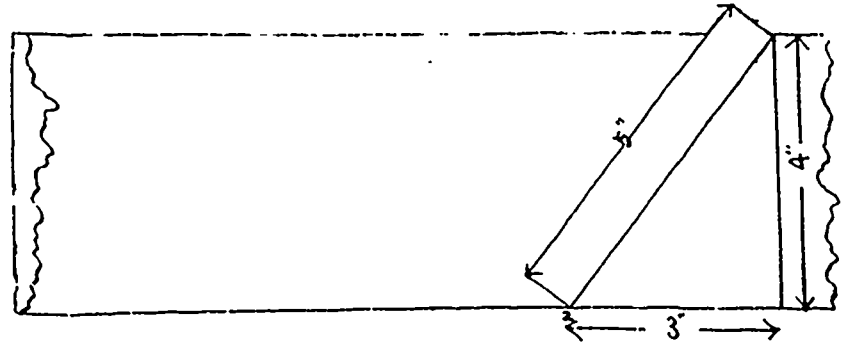
In last month's LUMBERMAN the remark was made by Mr. C. H. Clark, of Barre, that owing to the steady advance in the price of northern pine, yellow pine was being used in the eastern States for various purposes in building operations where white pine had hitherto held the field against all competitors. In a report from Boston, before us at this writing, we are told that a growing demand exists in that market for southern pine. The Northwestern Lumberman, under the caption of "High Priced Lumber," discusses this question, remarking that in these days of comparatively high prices for northern pine in the west, we hear much about the abandonment of contemplated building enterprises on that account. Our contemporary does not think there is very much in this objection, for the reason that in the house of the present day where brick, stone and labor are the heaviest items of expenditure, an additional price for the lumber that is required, does not to an appreciable extent affect the price of the contract. But if the difficulty has to be surmounted it is pointed out that there is still plenty of cheap lumber. For joists and scantling there is hemlock, and when hemlock will not give satisfaction for girders and heavy joists, yellow pine can be procured at prices not too high to be employed in first class structures. Whilst, however, other woods may for certain uses, be made to take the place of white pine on the ground of cheapness, it is to be remembered that the better article in any line of commerce will always more than hold its own. When competition reaches its keenest and depression is at its worst it is the lower values that suffer most. The silver dollar may depreciate, but the gold dollar never. The case is put this way by the Northwestern Lumberman: "We should not overlook the fact that the recent advance in prices for northern pine has been scored in the midst of increasing competition from southern lumber, which is sold as cheaply as before the advance in northern pine values. This is an important fact, and conclusively shows that the soft pine of the north holds a unique place among the lumber woods that nothing is apparently able to dislodge. White pine manufacturers and dealers can safely invite any competition with full assurance that their lumber will sell freely as long as any remains."

OUR SENTIMENTS, TOO.

HERE is some advice tendered by Hunt's Merchants' Magazine. "According to the character or extent of your business, set aside a liberal percentage for advertising, and do not hesitate. Keep yourself unceasingly before the public; and it matters not what business of utility you may be engaged in, for, if intelligently and industriously pursued, a fortune will be the result."

A HANDY RULE.

THE rule often called "the 6, 8 and 10 rule," says a writer in The Tradesman, is not nearly so well known as it should be, as this would often get men out of scrapes that now bother them. For example, we are out at the lumber pile and want to cut a piece six feet long and have the ends square. We have only the ordinary two foot rule with us, no try square or carpenter's square, and how shall we get the ends square. If we had one square we could measure down each side an equal distance, but as neither end is square we shall have to use our "6, 8 and 10 rule." We begin by measuring along the straight edge of the board and supposing it to be a board not exceeding twelve inches, lay off six inches, marking each point, making one point where we wish to cut. Now, measuring across the board, we lay off eight inches and make an "arc," by swinging the rule from the first point. For the final mark we take ten inches on the rule, and placing one end on the second point we marked, swing it until "ten inches" crosses the arc swing. A line drawn through the first and third points will be at right angles to the edge of the board. In other words, we form a triangle with a base six inches; a height of eight inches and a hypotenuse of ten inches, which makes a right angled triangle. The cut will show this plainly. It will be seen that it is marked 3, 4 and 5 inches in the



A HANDY RULE.

cut instead of 6, 8 and 10, but it is the same proportion and may be 12, 16, 20 inches or feet, according to requirements. Start with the point marked one and lay off two just three inches from it. Again, using point 1, lay off point 3, which is just 4 inches from it, and from point 2 measure where the line will cut point 3, when just 5 inches long. Then draw through 1 and 3 and you have the line at right angles to the edge of the board. It may be interesting to note that this valuable rule, which is really that a "right angled triangle can be formed by having the sides in the proportion of 3, 4 and 5") was discovered and published by the Greek philosopher Pythagorus several thousand years ago.

THE ENGINE ROOM.

IT has been said that the moisture from steam will cause whitewash to flake off, and where it falls on the working parts of machinery it will act as will so much emery. As to painting of floors, it had been my practice for a number of years to have the floor of my engine room given a coat of paint twice yearly. The place would look sleek and bright for a few weeks, and then begin to show uneven wear. Parts of machinery moved on the floor would leave their tracks, and the use of soda for washing the boards would cause shading not at all artistic. Planed tongue and grooved lumber without paint may be washed once a week with potash or lye water, and will soon bleach out, and will always present a good appearance.

THE CANADIAN PINE LUMBER TRADE.

By Wm. LITTLE.

YOU have no doubt observed in the discussion that recently took place at Ottawa on the subject of the re imposition of export duties on sawlogs that Mr. John Charlton, M.P., referred to the present prosperous condition of the Canadian pine lumber trade as a reason for not re-imposing the export duties, and many Canadian lumbermen, misled by his remarks, fancy that in some unaccountable manner, it has contributed towards bringing about this condition, whereas a knowledge of the circumstances will show that the free export of sawlogs would have completely prostrated the Canadian pine lumber trade but for the scarcity of pine timber in Michigan.

That it has caused a veritable boom of prosperity to the log exporting trade is no doubt correct, and to this extent it has of course been injurious to the Canadian pine lumber trade, as every board manufactured from these sawlogs comes directly into competition in the United States markets with our home manufactured lumber.

Even the reduction in the rate of duty on white pine lumber made by the Americans wholly in their own interest from \$2 to \$1 per thousand feet has hardly anything whatever to do with it.

The present prosperous condition of the Canadian pine lumber trade is simply due to the fact that the supply of white pine lumber both in the United States and Canada in the season of 1891 fell greatly short of the prospective demand—that in the United States alone in the three great white pine producing states—Michigan, Wisconsin and Minnesota, according to the published returns, being about 721,000,000 feet short that season, as compared with the supply of the previous year; this shortage, as you will observe, being about fifty per cent. more than our whole export of white pine lumber to the United States.

It is this fact that has brought the Canadian pine lumber trade into a prosperous condition, not the reduction in the rate of the American lumber duty on white pine, and as I have said above, in spite of the injurious effects of the export of sawlogs.

Last winter the American lumbermen with their usual heedlessness made every effort to again overstock the market, but they were unable to do so from the scarcity of white pine timber in Michigan, the result being that they succeeded in securing only an ordinary season's supply, even with the more than 200,000,000 feet of sawlogs gratuitously thrown in from Canada, which left the shortage of the previous year still existing; and but for these Canadian sawlogs sawn last year in Michigan the United States stock last fall, instead of being about the same amount short as in the previous year, would have then been near 1,000,000,000 feet short of an ordinary supply, which would have at once placed the Canadian lumber trade, where it ought now to be, in the highest degree of prosperity, no matter what the American duty might be on our pine lumber, for since they want the lumber they would simply have to pay the duty.

And here I may say that if the sawlogs which have already been, as it were, bonused away to Michigan, and the 400,000,000 to 500,000,000 feet that are to be rafted over there this year, remained as they should for the profits and industry of our own people, the Canadian pine lumber trade, which is simply fairly prosperous, would now be in the most prosperous condition ever known in its history.

But, unfortunately for the prosperity of Canada, so imprudently has our Government acted in this matter in granting these exceptional advantages to foreigners that, now when large profits should be made by Canada and Canadians out of our pine timber resources, it will be found nearly the whole timber, tributary to waters entering the Georgian Bay and Lake Huron, our last really valuable pine timber reserve, is held by Americans, who have acquired it at prices less than one-third what they would have to pay for similar timber in their own country, and not one-tenth what it would be worth five years from to-day. And great as is this loss to Canada it is not even the whole loss we must sustain, for most of it has been purchased with the intention of transferring its manufacture, shipping and other advantages from Canada to the United States, so that our people are not

to derive from it a tithe of the benefits that a proper governmental policy on this subject would give us. And even now, when these conditions must be well known to every member of the government, possessed of any intelligence, as if it was determined to prevent our people from realizing the advantages to be derived from a scarcity of timber in Michigan, our chief competitor in the white pine lumber trade, it is hesitating about re-imposing even the \$2 rate of export duty on pine sawlogs, a rate in no way even protective, as it only offsets the United States duties on the spruce, red pine and other lumbers of Quebec, New Brunswick and Nova Scotia, and the spruce, fir and cedar lumber of British Columbia and the west. And we are again this year expected to throw away about a million dollars in revenue on the 400,000,000 to 500,000,000 feet of sawlogs to be exported to Michigan free of export duty this summer, an amount about equivalent to our whole exports of sawn pine lumber to the United States, there to be manufactured into lumber to compete with our home manufactured lumber on which the Americans still exact duties; thereby not only filling the American market with lumber that would otherwise be supplied by our home product, but doing so with advantages under existing conditions equal to near \$3 per thousand feet in their favor, while at the same time depriving our own people of employment in the manufacture, shipping and other industries connected therewith—an imprudent act on the part of the government for which no satisfactory excuse has ever been or can be offered.

MONTREAL, Que., 1893.

HIGH STEAM PRESSURE.

IT is well settled that engines can be worked with less consumption of steam if run at high boiler pressure, on either the compound or other multiple-expansion system, than at low pressure, and the present tendency in steam-engineering circles is toward an increase of pressure rather than a decrease. What the exact ratio of gain is as the pressure is increased has not been absolutely determined by any experiments of which we have knowledge, says the Engineering Record, but there are sufficient data which may be obtained here and there to make the fact of the increased saving certain. For example, there have been experiments showing that a compound engine of the Corliss type, working under 80 pounds pressure, will use from 16 to 17 pounds of steam per horse-power per hour. There are other cases where a similar engine at 110 pounds pressure uses from 13 to 15 pounds of steam per horse-power. Other data are available which show that at 150 pounds pressure the consumption of steam is reduced by triple-expansion engines to 13 pounds, or, perhaps as low as 12.5 pounds. Making allowances for differences in the type and condition of different engines from which data have been obtained, there is ground for the belief that with an increase of pressure from, say, 100 pounds to 150 pounds in the compound engine, with suitable change of proportion to realize the full advantage due to expansion of the steam, there is at least 10 per cent., and, perhaps, 15 per cent., saving in the engine carrying the highest pressure. Without going into refinements there is further reason to believe that between a compound engine running at 100 pounds, and a triple-expansion engine running at 150 pounds, both suitably proportioned and loaded, there is a similar gain of at least 10 per cent., and perhaps, 15 per cent., due to the engine working under the higher pressure and greater expansion. These figures are given to show the general feeling among those who are well informed, rather than to define exactly the relative economies; and it may further be added that they are intended to indicate the relation which exists in engines which are in good order and well maintained, and the relative economy only in the consumption of steam.

To secure the benefits of high pressure it is necessary to provide extra strength in the boilers, in the steam piping and in the engine itself, or at least in the high-pressure cylinder to withstand the increased strains. It is necessary to employ more stable joints, besides a better class of packing, and the whole equipment must be adapted, in its various details, to resist the stronger forces which are brought to bear upon it. When the plant has been well designed for these special duties, it

must, when set to work, be watched with increased care, and by a more skillful class of attendants, to keep it properly maintained, than one designed for low pressure. The breaking out of packings, and the increased wear of steam valves and pistons in the engine, introduce waste where high pressures are carried, which may be entirely absent where the pressures are limited to those which have been common in the past. Extra wear and tear and depreciation, and the losses of steam and fuel which they cause, are the accompaniments of excessive pressure even when the construction is of the best class, and these, so far as they act, offset the intrinsic advantage which might otherwise be obtained. The interest and depreciation charges on the more complicated and expensive plant, the waste of steam referred to, the extra cost of attendance, and the increased cost of repairs and supplies, use up at best a large part of the saving of fuel, which can be made by the more economical engine, and these may become, with careless management, even larger in quantity than the entire amount of saving, so that the use of high pressure produces a net loss rather than a gain.

Unless those who are intending to profit by employing excessive steam pressures and a properly proportioned engine, either of the compound or triple-expansion class, are prepared to combat the difficulties in handling the increased forces here briefly alluded to, and make proper allowance for the waste of fuel and current expenditures incident thereto, it is almost folly to expect in the end satisfactory results.

LOSS FROM THE USE OF WORN-OUT MACHINERY.

IT is poor economy, says the Scientific Machinist, to continue a tool or machine in use after it has served its time and is ready for the scrap pile. Yet we see it done every day. Machines that will turn out less than half the work that new ones would be being run in many shops and many manufacturing establishments. The slow operation is not the only loss. Inferior work, stock spoiled and time spent in rigging and fixing up are to be added—and important additions they make. Often labor less skilled can do with a good machine what can be done only with much more costly help on an old tool.

Nor is the machine shop the only place where great loss is entailed by the use of worn-out machines. Some plants are even more in need of attention. The possibilities of waste at the source of power are very great. Badly designed furnaces, boilers venerable with age and in execrable condition, defective chimneys, bad steam conditions and appliances, worn-out, shaky engines and incompetent engineers and firemen, are costing manufacturers enough every year to cut down very materially the aggregate net earnings of all concerns using power. Manufacturers who will go out of their way to save a piece of material worth ten cents and scold their workmen for not looking carefully to economy in this direction will listen complacently to the complaints of their foremen condemning used-up tools, and the recommendations of their engineers that repairs, or new purchases of engines, boilers, pumps, injectors, packing, lubricators, etc., be made, and pass them by with the mental comment that "guess if they have served so long, they can a little longer," or something of that kind, seemingly blind to the fact that the worn out machinery is eating up earnings enough to buy new in a short time.

If they looked more to the performance of machinery there would be less complaint of small margins.

DRY STEAM.

IT is probably only a question of another 10 or 15 years before engineers generally will again be using slightly superheated or dry steam, not only in land engines, but at sea and with locomotives. Modern ideas favor the change, and the economy which will be obtained by preventing the large amount of condensation now going on in steam cylinders. The presence of water is acknowledged to be uneconomical and injurious. A steam jacket is only a simple means of raising the temperature of the cylinder metal touched by the steam. For the maximum economy it is important to increase the temperature of our cylinders, and this is precisely the effect of superheated steam, the result being that there is much less condensation.

VIEWS AND INTERVIEWS.

Success
on Top.

The reply of Daniel Webster to the young man who sought his advice as to taking up law has often been quoted. "Yes," said the learned jurist, "there's lots of room on top." How to get there is the bother with many men in various callings. "On every side," some one has said, "we see the plodding masses following in the old rut, each contending with his neighbor for the scanty herbage within reach of the well-beaten pathway, while just beyond, on either side, are pastures fresh and green. Originality is the ladder which affords an escape from this old rut, which is being worn deeper every day by a constantly increasing stream of plodding, grovelling, mediocre humanity. These plodders are found in all kinds of business. They are struggling simply for bread, and many there be who fail to win it. The man who would make a success of a business venture must leave the rank and file, and get off the tread-mill. He must climb out of the rut. He must be an originator of practical ideas, and an independent thinker. He must be able to clearly see a point, and then possess the executive ability to make it. He must possess sense enough to know that he cannot advance without breaking ranks."

A Broader
View.

It is not alone men who are lost in the desert or the forest, who walk in a circle. Some men, as the saying goes, trot around from day to day the one little cabbage leaf and imagine that its circumference is the circumference of the world. They see nothing beyond it but darkness. Other worlds may have an existence, but to them these are as mysterious as the planet Mars. There are business men built on this plan. It is needless to say that they have no use for a trade paper dealing with matters connected with their calling. Nothing is to be learned outside of the knowledge they already possess. They know it all. But somehow, just as with the tree whose roots receive no water, a process of general decay gradually sets in. Or, like the farmer who works the same soil from year to year, constantly cropping it, and never feeding it with needed nutrition, the powers of giving forth finally weaken and are eventually lost. One cannot constantly give out and never take in. The system of reciprocal recuperation and feeding exist all through nature. The man of business, who expects to rise to the heights in the world of commerce, must widen his horizon, broaden his vision, dig deep, look up and beyond, be ready and expectant of learning something new and valuable every day. There is no such thing in the world of business as living like the oyster, closed up in one's shell. There are worlds beyond.

Don't
Worry.

"A man's business life is too short," says a contemporary, "to waste any portion of his time in fretting over any trifling matters of business. If a man has a mind to be annoyed by every little mishap that occurs in his establishment he can keep himself in constant hot water by worrying. There is neither sense nor reason in flying into a fit of passion because some careless clerk breaks a stone fixture, leaves a faucet running, smashes a jug, or commits some other trifling blunder. Constant fretting on the part of employers makes clerks and book-keepers nervous, and in this condition of mind and body they are far more apt to make mistakes than they otherwise would be. Business worry wears a man out very rapidly, and when the habit of fussing is acquired, it is extremely difficult to rid oneself of it. There are men who work themselves into perfect fits of passion over little insignificant matters not worthy of serious thought and consideration. There are other men who fret because they fear that something unpleasant is going to happen to their business. They may have obligations to meet, a note due at the bank, while their customers cannot be depended upon to help them out of a tight corner, but there is no earthly use of borrowing trouble until trouble comes, and then every enterprising merchant should manfully meet it. There is a great difference in merchants. Some wear themselves out before middle life, become irritable, morose, snappish and disagreeable in the conduct of a very small business, while other men,

with vast interests and great responsibilities who are calm and well poised, patient and nervy, live to a good old age without borrowing trouble or shattering their nerves over trifles.*

The Good
They Do.

It has often been remarked that the good a man has done is seldom known until after all that is useful of him here has been consigned to the earth. The cynical, yes the cynically critical spirit is strong in human nature, and more effort is given by many to fault-finding than to meeting out words of encouragement and praise to those who have earned these. We would not like to say that individuals or organizations are doing all the good they ought to do for others. The conviction is strong that we all fall short in these matters. Yet much effort is being exerted for the well-being of others that we are often slow to take cognizance of. Directly in the interests of the thousands of lumbermen whose work shuts them up in the bleak forest for about six out of twelve months in the year disinterested efforts are put forth both by our churches and temperance organizations to a degree that we frequently hear nothing about. Work among the lumbermen is a distinct department of W. C. T. U. effort and large quantities of literature are distributed among the camps every winter. A report from the Presbyterian Synod of Montreal and Ottawa before us at this writing shows that during the season just closed 124 camps, 8 depots and 14 stopping places had been visited and that the gospel had been preached and tracts distributed among 4,154 men in the woods. As many as 1,120 volumes had been distributed among men as well as 22,318 tracts. The lumber regions visited were Mattawa, Madawaska, Gatineau, Bonnechere, Petawawa, DuMoine, Muskoka, and the shanties in the vicinity of Scott's lake. It is proposed that next winter two missionaries be engaged during the season, one as heretofore in the Upper Ottawa and Mattawa, and another in the Gatineau district.

FIRE APPARATUS FOR A MILL.

IT may be handy to know, says a contemporary that about 65 pounds water pressure at a nozzle will be required to throw a one-inch stream 150 feet horizontally with a single length of hose, 70 pounds pump pressure at the nozzle. Seven to nine pounds must be for each 100 feet of hose, and the diameter of the hose used has considerable to do with the result. To maintain 50 pounds pressure at the nozzle and throw water 125 feet horizontally or 79 feet vertically through 100 feet of hose will require 67 pounds pressure at the pump. For 200 feet of hose 84 pounds pressure; 300 feet, 101 pounds; 400 feet, 118 pounds; 500 feet, 135 pounds; 600 feet, 152 pounds; 700 feet, 169 pounds; 800 feet, 186 pounds; 900 feet, 203 pounds; 1,000 feet of hose, 220 pounds pressure will be required. By using the above data when setting up a fire pump, the reader will not be in the predicament a mill owner recently found himself. The pump and connections were erected and upon testing the stream through 300 feet of hose, it was found that sufficient power could not be had at the pump to throw the water 20 feet beyond the nozzle.

MONOPOLIES.

IT would seem that modern monopolies are not without their historic ancestors. They have simply evolved in dimensions and faded in their original modesty. The first concepts were local and limited, every pea having its rind in a special thimble; the latter edition has no such waistband, but has all the planet on which to live and move and have its spoils. The difference between the sixteenth and nineteenth centuries in their monopolistic histories is simply a matter of degree. The cockatrice is still in the egg. In the days of the Tudors patents to deal exclusively in particular articles were so lavishly bestowed on courtiers and royal sycophants that scarcely a commodity remained free. They extended to salt, leather and coal, and only made a respectable halt by the bread basket of the people. Even Lord Bacon, the legal luminary of the times, handed over to a pair of fortunate barons the exclusive manufacture of gold and silver lace, giving the dainty patentees the right to search houses and also to arrest any person alleged to be an interloper in the trade. Is the modern coach traveling the same road?

STEAM CEMENT.

MANY times little occurrences come up in an engineer's practice where some kind of cement which will stand the heat and pressure of steam can be used to excellent advantage. Perhaps a blow hole in the casting opens up and a stream of steam or water escapes. In such a case it would be most desirable if there was some cement handy which could be put upon the defective spot and would set within a few moments and afterwards remain tight. Many other circumstances often come up where a good cement that would set solid and strong would be found most useful. To be sure, one of the best ways of fixing such things when they occur is to replace the defective by new material, but as this cannot always be done without the expenditure of more time and trouble than is convenient to give it, something that will serve a good purpose instead is desired. A contemporary gives the following recipe for a preparation which, we think, will be found quite useful, as we have often used a cement of similar composition to this. Five pounds Paris white, five pounds red lead, four pounds black oxide of manganese. The whole is to be well mixed and a little asbestos and boiled oil added. This cement will set hard in from two to five hours, and it is not subject to expansion and contraction to such an extent as to cause leakage afterwards. Leaks that occur in places which are difficult to get at and remedy, may often be stopped by the application of a little cement composed of the above materials in about the proportions specified. Tradesman.

"DON'TS" FOR STEAM USERS.

DO not condemn any appliance introduced ostensibly for the purpose of securing economy or safety without giving it a fair trial, as some of the most valuable inventions now in use were ridiculed and rejected when first introduced. Many excellent "devices" have been condemned by those having the care of boilers and engines.

Do not discountenance any device, invention, adjunct, or arrangement that will lessen your labor, induce economy, and at the same time give a guaranty of safety. Give everything placed in your charge by your employer a fair, impartial trial.

Do not allow the boiler front to become filthy or the gauge-cocks to leak and become covered with mud and the salts resulting from impurities in the water, as this would furnish strong evidence of slovenliness.

Do not let anything connected with the boiler in your charge run from bad to worse, with the idea that at some certain time you will have a general overhauling and repairing, because an accident may occur at any moment, involving serious loss of life and property.

Do not neglect to have a boiler insured when practicable, as insurance is generally accompanied by intelligent inspection, which furnishes a guaranty of safety to the engineer, owner, or steam user.

Do not reject the advice or suggestions of intelligent boiler inspectors, as their experience enables them to discriminate in cases which never come under the observation of persons of a different calling or pursuit.

LINKING BELT FOR SLOW MOTION.

AS is well-known by all practical men, belting in general use is not well adapted to slow motion uses, or for driving any machine or piece of machinery that has a very slow motion. Nor is it always convenient to drive such with gear wheels, even if it were desirable to do so, which, as a rule, it is not. As a substitute for both no better can be found than chain, or what is commonly called "link belting." It is well adapted to the purpose and as reliable as gear wheels, there being no possible chance to slip or run off the wheels.

EXHAUSTION AND ACCIDENTS.

IN investigations made as to the causes of industrial accidents, not a few of these are traceable to exhausted and overworked labor. Men as yet are not cast iron automata, nor is there that metallic fidelity in bones and sinews that we find in locomotives and clocks. There is a limit to the vigilance and endurance of the strongest of men, and in position in that direction is not only a claim on a humane society but an occasional subpoena of the coroner. In many cases of accident the cause is not so much due to carelessness as to helplessness. Age of Steel.



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J. S. ROBERTSON, EDITOR.

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 25 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.

LUMBER IN THE LEGISLATURE.

THE question of lumber in several different forms occupied the attention of the Local Legislature at the sessions which closed in this city a week ago. There were a number of enquiries concerning the disposition of and changes in sales of certain berths at the last sale of the local government, and also in regard to the rights of locatees and settlers on lands over which timber licenses extended.

A bill to establish the Algonquin National Park of Ontario was introduced by the Commissioner of Crown Lands and carried through its several stages to completion. We deal with this matter in a separate article.

A discussion of the government's timber policy, introduced in the following resolution by Mr. Miscampbell, gave rise to the leading debate of the session touching lumber:

This House disapproves of the policy of disposing of the timber reserves of the province without its approval being first obtained, and is of opinion that the right to cut timber upon the present reserves should be sold under such conditions as will ensure the manufacture of the lumber cut therefrom within the province and more effectually guard against the unnecessary cutting and destruction of the small growing timber on such reserves.

The member for Simcoe, in speaking to the question, referred to the valuable assets the province possessed in its timber resources. And yet these resources were rapidly diminishing under the policy pursued by the government. A heavy drain was being made on the supplies of timber in the large and growing exportation of logs, free of duty, to the United States. It was given on good authority that 180,000,000 feet of logs were towed from the north shore of Georgian bay to Saginaw last year and it was estimated that the exportations of the present season would reach fully 400,000,000 feet. Michigan lumbermen claimed to have 3,000,000,000 feet of standing pine in Canada. In connection with this phase of the situation Mr. Miscampbell referred to the growing scarcity of white pine in Michigan, Wisconsin

and Minnesota. It was admitted by Michigan lumbermen that they were touching the end of supplies in that state; it became absolutely necessary that supplies be sought for elsewhere, and no more convenient or desirable point was to be found than the forests of Ontario. With no restrictions as to where the lumber should be cut; with no duty exacted on logs exported to the States, and having their own mills in Michigan, with certain advantages over Canada, in respect to cost of manufacturing the lumber, United States lumbermen had good reason to cast covetous eyes on Canadian pine. In view of these facts Mr. Miscampbell's contention was that the government should do what was in its power to secure to the province and people the benefits that would come of the manufacture of the timber cut within our own borders.

Mr. Clancy said the plain duty of the government was to preserve the resources of the province. He argued that there was an alarming shrinkage in the size of timber cut. To-day they were cutting timber that 20 years ago would have been passed over.

The Commissioner of Crown Lands vigorously defended the policy of the government. Timber limits were sold as the necessities of the Province called for certain sums of money to cover the expenditure of public works. He believed it would be injudicious to adopt the resolution as that would be the means of provoking retaliation from the United States. The international relations between this country and the United States were already strained over the question of duties and it was not for this province to involve us in international troubles.

The leader of the opposition, Mr. Meredith, said that whilst there might be something to be said against imposing an export duty on logs going from the whole of Canada there could be no contention on the part of the United States that the province had not the right to insist that the timber sold should be cut within its borders.

The outcome of the debate was foreshadowed in the remarks of the Minister of Education who, replying to the statement made by one of the speakers that the question was being discussed with a strong party bias, argued that nothing else was to be expected as the resolution meant a vote of want of confidence. The vote was certainly on strict party lines standing 48 to 27 and the resolution was consequently defeated.

If Mr. Ross' statement is to be taken as expressing the views of the members generally, whilst not, perhaps, unexpected, it must be regretted. The question suggested by Mr. Miscampbell's resolution was commercial in its character, and aside from the policy enunciated, whether the best in the interests of the province or not, ought to have been discussed purely from a commercial basis. We shall not easily get at right views of business legislation except as we prepare ourselves to deal with business questions from the point of view of strict business and away from the prejudices of political partizanship.

ALGONQUIN PARK AND FOREST PROTECTION.

THE bill of the Commissioner of Crown Lands to establish a forest reservation and national park, passed at the sessions of the Local Legislature a few weeks since, gives a practical turn to Canadian forestry. The matter had been under consideration by the government for some years and about a year ago a Royal Commission was appointed to enquire into and report on the matter. This report was laid before the Legislature at its last session.

A description of the location of the park has already appeared in these columns. It will be situated in the Nipissing district, embracing about eighteen townships comprising 938,186 acres or 1,300 square miles. Of this 106,000 acres were under water. One important reason for the selection of this territory, said the Hon. Mr. Hardy, was that it had within its bounds the sources of all the considerable rivers flowing into the Nipissing or Muskoka lakes. Those having charge of the park would be able to inaugurate a system of forestry that would be beneficial to the whole province. The territory, in addition to being a splendid fishing ground, was the natural home of the moose, deer, otter and beaver. It was not intended to allow any destruction of these animals, those in charge, however, being empowered to

kill destructive animals, such as wolves. In certain portions permission would be given for the erection of summer cottages and hotels, and he had no doubt but it would be in time a most popular resort for health and recreation. No fishing, except with the rod and line, would be permitted. One superintendent at a salary of about \$800 to \$1,000 and four or five park rangers at a salary of about \$500 each would be necessary. A \$1,000 hut would be erected for the superintendent and ten or fifteen huts at a cost of about \$20 each merely for sleeping purposes. This would be about all the cost outside of a few implements.

The report of the commissioners indicates an intelligent and sympathetic interest in the general subject of forestry. The names of the commission were, Alexander Kirkwood (chairman), Aubrey White, Archibald Blue, James Dickson and R. W. Phipps. All have to a considerable extent been careful students of forestry, and they have at the same time a very general knowledge of lumbering interests and needs.

There is a good deal to be said on the subject of forestry from the scientific and also the national point of view. No intelligent lumberman will pretend to say that serious consequences do not come to any country as a result of the too prodigal destruction of its forests. As the Ontario commissioners remarked in their report: "The experience of older countries has everywhere shown that the wholesale and indiscriminate slaughter of forests brings a host of evils in its train. Wide tracts are converted from fertile plains into arid deserts, springs and streams are dried up, and the rainfall, instead of percolating gently through the forest floor and finding its way by easy stages through brook and river to the lower levels, now descends the valleys in hurrying torrents, carrying before it tempestuous floods."

With a somewhat rapid denudation of Ontario forests of late years, a national view of the question is one that is coming home to the people with enhanced emphasis. The timber resources of Ontario, and the other provinces as well, are among their richest possessions. Should these some day become extinct would not the financial condition of the country become seriously impaired? To many, we know, this question will seem so chimerical that it will not cause them a moment's consideration. Such a possibility will not come in our time is a frequent setting of the problem. But from the genuinely national standpoint have those of the present day no interest in the conditions of the future?

The danger usually in pursuing a study of this question from either the scientific or national side is that one forgets that when the lumberman invests his thousands and perhaps his millions of dollars in the products of the forest it is only by making this product marketable that he can hope for a paying return for his investments. And so far as forestry regulations exact unfair restrictions in the cutting of the standing timber in that measure the considerations of commerce are interfered with.

An indication of the interest lumbermen manifest in the present movement of the government is shown by a letter from Messrs. McLachlin Bros., of Arnprior, who are owners of extensive timber limits in the vicinity of the proposed reservation. They have asked the Commissioners that the boundaries of the park be so arranged as to take in a number of the townships over some of which they hold the right to cut. The government have included two of these within the proposed boundaries. The land set aside by the government for the Park belongs wholly to the Crown and as a consequence there are no vested or private interest in it to be bought up or dealt with.

The field will prove a satisfactory one for experiments in forestry, and lumbermen, no doubt, will watch with interest, the development in this direction.

DISCRIMINATION IN RATES.

The millmen in the vicinity of Fredericton, N.B., are complaining over an increase made by the Canadian Pacific road in the rate on shingles to American points, in which it is claimed that there is discrimination in favor of other places. The rate from St. John, St. Stephen and St. Andrews is 33½ cents; from Fredericton it is 40 cents, though the distance is no greater.



Ottawa mill-men, and remembering the distress that followed to wives and little ones, as a result of that month's cessation from work, am I not doing a kindness to fellow workmen, when I say: "Boys, go it slow?"

* * * *

A cablegram to a leading lumber firm here from their representative in great Britain does not point to a satisfactory state of trade across the Atlantic. The correspondent states that in both lumber and deals sales are very dull and hard to negotiate. Great difficulty, he says, is experienced in obtaining the advanced prices which have been paid for this year's cut. Consumers, he says, in England, are doing very badly, and there is much financial uneasiness. Shippers express themselves as being unwilling to purchase further ahead unless the outlook very materially changes, which he believes is most improbable. The trade on the east coast and Bristol channel has been affected by the recent strikes. The union men who were the original strikers now desire to return to work if the non-union men who were brought in from the country to fill their places are discharged, which the employers are refusing to do. It has been hoped, he says, that a new avenue of trade would be opened up in the French market, but the excessive import duties imposed under the new French tariff precludes the possibility of developing the lumber trade in this direction. The recent heavy failures among the Australian banks have caused considerable alarm among shippers, who are on this account inclined to be more cautious than before.

* * * *

A correspondent, of Saginaw, Michigan, says: "The apprehension exists to quite an extent that the exceptional activity that has characterized the lumber business the last few months will suffer a reaction before the manufacturing season closes. This feeling no doubt arises from the disturbance in financial circles, and is, perhaps, fostered by the bear element, or lumber buyers, who regard prices as having reached a higher level than the conditions of business will warrant. In other words that prices in manufacturers' hands are too high to enable buyers to handle the stock at a profit. The tightening of the money market and difficulty in obtaining discounts, except on first-class, gilt-edged paper, also exerts an influence favorable to the apprehension referred to. A contraction of credits and disposition to conservatism in financial circles generally affect most branches of the industry, and should these result in a contraction in building trades with a consequent falling off in the demand for lumber it would naturally affect prices. Some think that such large quantities of lumber have been contracted for, and the demand is still so active that no reaction is likely to be felt in time to affect this season's output. There is general complaint of dull business and banks are chary in discounting accommodation paper."

* * * *

The capacity of the coast mills of British Columbia is placed by Mr. H. H. Spicer, the large shingle manufacturer, of Vancouver, at 740,000,000 feet annually, but the annual cut is not anything like this amount, and a large amount of milling capacity is standing idle. Any one of the large mills could cut enough lumber to supply the home trade, and the population east of the mountains is so small that only a limited trade can be done in this direction. The duty prevents business with the States to the south and southeast. The mills have to depend largely upon the export trade to Australia, the west coast of South America and China and Japan, and this export demand has not been nearly great enough to keep the mills going. The two largest mills in the province are closed down entirely. Some lumber has been sent round the Horn to England, and a vessel has recently loaded for Montreal, via the Horn. But the distance is so great that the mills cannot expect much trade from the Atlantic side of the continent, while railway rates across the continent are out of reach for any considerable trade via rail. The completion of a ship canal across the isthmus between North and South America, connecting the Pacific and Atlantic oceans, would, said Mr. Spicer, add millions to the value of British Columbia coast timber, as it would enable British Columbia lumber to compete freely in Atlantic coast markets, both in America and Europe.

NOTES AND QUERIES

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column. Correspondents need not give their own name for publication, but it must be made known to the editor. Anonymous communications will find space in the waste basket.

No. 36. **BUYING A BOILER.** The advice of the MILLER is not unfrequently asked concerning the buying of a new boiler. Consult a firm of known ability and character is advice we never fail to give. There is no economy in the simplest purchases of life in trying to save a few cents in buying the cheap and nasty. But the disaster that may befall unwise buying is not the same in all cases. Where a boiler is needed is a case where it is difficult to say what may be the outcome of "a penny wise and pound foolish" policy. A writer in the Safety-Valve puts the matter tersely in these words: "If you want a brick wall built or a well dug, it's a good plan to advertise for bids and let every mason and well-digger in town compete. The most irresponsible and conscienceless boiler-maker is sure to get the contract, and you'll have no end of trouble with your new boiler. A little consideration will assure you that boilers can not be made for less money than is asked by those who make boilers of standard quality, and who could not afford to deliver a boiler of poor material and faulty construction, because it would injure the reputation of their work and workmanship."

No. 37. **CHALK AND GREASY BELTS.** There are many places where leather belts are used so greasy from drippings that can not be well prevented, from flying oil and spray, or from other unavoidable causes, that they become thoroughly saturated with grease, so much so that they become very inefficient and practically useless unless the grease is washed off or otherwise removed. It is said that a belt so disabled can be best renovated by the use of common chalk. Take a large piece of chalk that will cover the width of the belt, and hold it against it while running. The chalk takes up the grease as it is worn off by the friction of the belt. After chalking awhile, take a scraper and hold it against the belt in such a manner as will scrape the accumulated mixture of chalk and grease all off, and then renew the chalking operation, and keep repeating until the belt is in good working condition, when the cleaning process can be discontinued until it becomes dirty again. This is a simple remedy, and is by some considered the best way for keeping greasy belts clean and in good working condition.

No. 38. **THINK BEFORE YOU ACT.** Not a month goes by that we are not reminded, as we worry through some hundreds of newspapers, from all parts of the country, of the many accidents occurring in mill and factory solely through carelessness. Scores of these are so serious that we are surprised that the carelessness continues, but no sooner is warning sounded on one hand than an accident occurs on the other from almost a like cause. We are moved to write in this strain by a letter from a correspondent detailing and bewailing, as well he might, an accident, the result of simple carelessness, that had come immediately before his notice. To further illustrate what we have been saying, we shall quote here from a forceful paragraph that has come to our notice in a technical exchange. It is this: "Prompt action may avert a catastrophe, but thought as to cause and effect must come a little ahead of action, otherwise more damage than good may follow. I have in mind a young oiler in an electric light plant, who, being in a hurry to fill his oil cups, that he might be relieved for supper, grabbed an oil can in each hand and inserted the spouts on cups with different bearings at the same time. He immediately lost all appetite for supper. Another case, in which a poor fellow lost his life. A heavy belt commenced to slip. He grabbed a can of resin, and, running under the belt threw a great quantity of the dry resin, some of it in large lumps on the belt, which resulted in throwing the belt from the pulley, which struck him on the head and threw him into the fly-wheel of the engine." Care, care, constant care, that eternal vigilance that we sometimes talk about, is the only recipe against a continuance of these sad casualties.

DAMPERS IN STACKS.

BE careful of dampers in stacks; use them with care; be sure they are open before starting the fires. The greatest care should be exercised when light fuel is used, for to close a damper with large body of fuel on grate bars will cause flame to impinge on bottom over same, thus concentrating heat on one point of boiler. Many good boilers have been bagged and burned from the same cause. Always try and regulate draft by damper in bottom or front.

McCaffrey's planing mill at Huntsville, Ont., was burned on 31st ult. Loss, \$3,000; no insurance.

ARIVERMAN from the Georgian bay district says the water is running so swiftly in the Walnapitae that the logs go down stream with almost the rapidity of a locomotive under full head of steam. The American firms have nearly all their tugs employed in towing the logs across the Georgian bay to the different ports on the Michigan side. * * * *

A prominent Ottawa lumber agent said that he thought a cut of 250,000,000 feet at the Chaudiere mills for the season would be rather below than above the mark. Asked what he estimated the money value of the output at he said he believed it would reach \$3,000,000, as the lumber cut would on the average bring \$12 per thousand. Asked about how the "drive" was coming out he said everything was doing well. Messrs. Shepherd, Morse & Co. had an alligator tug on the Kippewa and the way this tug brought out a tow of logs astonished all the old time river men. The tug, as its name indicates, works almost as well on land as on water. It is worked by a cable wire and can go across a portage at a fair rate of speed. In the water, when the cable is not used, the tug can ply her paddles and steam along at the rate of six miles an hour. * * * *

In the opinion of Mr. Henry Gannett, a member of the geological survey of the United States, there is no fear of the forests of that country giving out soon. He says: There is to-day nearly if not quite as great an area of woodland in the United States as when the white man set foot on our shores. There are not so many square miles of merchantable timber now, as then, but the territory occupied by growing trees is about as extensive as it was 400 years ago, and these trees will in time grow to size suitable for the production of lumber. Some of Mr. Gannett's statements are quite inconsistent with the general belief that American forests are giving out. He says, for instance, that only about 270,000 square miles, or less than one-tenth the area of the country, is artificially cleared land, while to offset this loss there has in recent years been great extension of wooded land in the prairie states as well as in some of the natural tree-growing states. A table is published showing the total area and the wooded area of each state, the figures having been obtained from reports of the census and agricultural department, from official surveys, and in a few cases from careful estimates. As a grand result it is shown that the wooded area in the United States, excluding Alaska, is nearly 1,113,000 square miles. * * * *

It may be that there will be a strike among the mill hands of the Chaudiere within a day or two. The mill-hands are asking for a ten-hour day and a short time since addressed a circular to the mill-owners making this request, and asking for a joint meeting for Saturday, May 27th. The mill-owners made no response to the circular, and the day named has passed without any meeting being held. It is certain that the mill-owners have determined to resist the demand. A member of the firm of J. R. Booth & Co. stated that if a strike did take place it was very probable that the mills would be boarded up for the season rather than accede to the demands of the men. The only way in which the strike would affect the mill-owners would be that they would have a smaller quantity of dry lumber for shipment next season. Mr. F. P. Bronson, of Bronson & Weston, when spoken to regarding the matter said: "Let the men strike. We can get along without them. If they really want to strike we will not prevent them." Mr. Robt. Hurdman, of the firm of Buell, Hurdman & Co., stated that he did not fear a strike. Their mill was now shut down for want of logs, and as it would be some days before they would get them, it did not matter to his firm whether the men struck or not. The mill-men will hold a mass meeting to consider the situation. With the record of the strike of 1891 yet fresh in the memory of

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE sensation in lumbering circles the past week has been the unusual rising of the Ottawa river. At this writing it is difficult to tell what the outcome will be. Already the water has reached the highest point in seventeen years, since 1876, the year of the great floods. What is being remarked by those who know Ottawa well is that the increase is not gradual as has sometimes been the case, but the rise is in leaps and bounds. How much further this increase is to continue is the alarming aspect of the case. The fear is that the terrible record of the flood year will be rivalled unless there is a speedy cessation of these rushing, bubbling, troubling waters. Lumber interests are being affected in various ways. A boom of the Upper Ottawa Improvement Company has been carried away, and seventy thousand logs sent adrift. J. R. Booth has been obliged to close down his mill for the reason that the water has risen so high logs can no longer be gotten to the saw. Buell, Hurdman & Co. will likely have to close down if the waters continue to rise. Eddy's dam is in danger of being swept away, though they have taken the precaution of drawing a lot of heavy stone to place there. The water has risen so that the logs separating the government slide for square timber for McKay's mill race and the other slides for logs have become covered, and there is great danger that they may break at any moment. The possibilities of serious trouble are indeed many. It is a case of wait and hope for the best.

INDIFFERENT LENGTHS.

A quantity of logs, which have lain all winter above the Chaudiere Falls, enclosed in a boom, broke away on Queen's Birthday, and for a time blocked an excursion party by a local steamer. The logs number some hundreds and belonged to the Hawkesbury Lumber Company, with a few the property of Mr. J. R. Booth.

R. G. Dunn & Co., in their latest trade report, uses these words in regard to the lumber situation in Ottawa: "This year's lumber season has opened most auspiciously, extremely large sales at good prices having been already reported, especially in square timber, and the opinion has been expressed that if present prospects are realized it will be one of the most successful seasons on record."

An awkward mishap occurred at W. C. Edwards & Co.'s mill at New Edinburgh a few days ago. Shortly before six o'clock, the hour for stopping work, the endless chain, which is used to haul the logs up from the Ottawa river a height of about fifty feet, broke in the centre, and slid down, falling far out into the river. A good deal of difficulty is being experienced in getting it out again owing to the weight of the chain and the condition of the river with sawdust.

A large cargo of deals calling for the use of six barges belonging to the Ottawa Forwarding Company have gone forward to Montreal, thence to be shipped to the old country. The deals are of fine quality and were sawed last year by Perley & Pattee. As a large carries some 750,000 feet of lumber, it will be seen that nearly 5,000,000 of feet will go by these six barges. Besides this shipment Mr. J. R. Booth was loading a number of cars with dry lumber for the American market.

OTTAWA, Can., May 29, 1893.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE Royal City Planing Mills Co. are at present cutting a cargo of lumber which, without exception, will be the finest ever shipped out of British Columbia. The cargo is destined for France, and the ship which will carry it has been chartered and will arrive in port early in July to load. Every stick will be seasoned and free from knots, sap and shakes—in other words, every piece in the cargo will come under the head of "specially selected." This will be the first export of lumber from British Columbia to the French republic. This company is also making some important shipments to Ontario and Quebec. A recent shipment to Toronto consisted of 21 sticks of lumber 12 inches square and 69 feet long. The timbers were loaded on two cars, and their beauty even in Westminster, where such sights are not rare, attracted considerable attention. Several car-loads of heavy canal timbers are to be shipped to Montreal. Nor do the shipments of this Company end here. They are filling an order for St. John, New Brunswick, of extra large spar timber. Each stick is 22½ x 24 inches, and 70 feet long, all free from knots or flaws. The logs from which these splendid sticks will be made have been cut at the company's logging camp, Mud Bay, and will be brought by rail to Port Kells and towed from there to the city. Several carloads of smaller timbers for the same destination have gone forward during the last few days.

COAST CITIES.

The N. P. steamer Victoria left Victoria for the Orient on 11th inst, taking 350,000 feet of lumber for Yokohama.

The saw mills are all busy and expect to be for some time. Their orders for salmon cases are larger than they have ever been, as a large run of fish is confidently expected.

The continued wet weather is interfering with their getting logs fast enough to keep running, but the last few days have been very fine and it is to be hoped the summer has arrived.

The case of Scott vs. Hastings Saw Mill Co. has been decided against the Plaintiff, and the company absolved from all liability in the matter. I mention this because in a former letter I said that Scott had secured damages.

The shingle business is picking up, and shipments are steadily increasing. Messrs. W. L. Johnson & Co., of Gambler Island, have shipped 1,000,000 feet to Victoria, and 160,000 to Bowmanville, Ont. This firm had 20 carloads sold to a Chicago house, and was commencing to load the first car at Liverpool, when the shingle combine on the United States side of the line went to pieces, and the order was cancelled forthwith. There is a duty of 30 cents per thousand on shingles going into the United States. Were this removed, Mr. Johnson says, the shingle business would soon be booming in British Columbia.

NEW WESTMINSTER, B.C., May 22, 1893.

NEW BRUNSWICK LETTER.

[Regular Correspondence CANADA LUMBERMAN.]

RECENT legislation may have an important bearing on the future of the lumber industry of this province. The local legislature, at its late session, passed a bill relating to the leasing of crown timber lands. The term of ten years, the length of the present leases, expires in August. The new bill endeavors to ward off possible speculation in timber lands by providing that a certain average cut must be made by all lessees in respect to all lands held by them. In another section of the bill power is given the governor-in-council to increase at any time the rate of stumpage and mileage on such lands. This is supposed to be a safeguard against possible monopoly. Provision is made in the closing section of the bill for the offering of the leases at public competition, upon condition that they be renewed annually at the pleasure of the government for a term, not exceeding 25 years. In the course of the debate on the bill the leader of the government stated that there were not less than 2,000,000 acres of splendid timber lands still unlicensed and unbroken. With some the opinion prevails that this legislation may lead to a strong lumber combine, and by bidding in the best of the new lands and controlling the leases it would completely shut out small operators. Under the present system of only ten-year leases 1,250,000 acres are held by ten lessees.

Another piece of lumber legislation proposed by the Legislature is a bill admitting of the incorporation of companies for the purpose of clearing out rivers, lakes and streams, to facilitate the driving of logs; such companies to have the right to charge tolls on the lumber drives down the streams cleared by them. The theory is that were the same parties, who might buy up the principle leases, to also control the movement of the logs in the stream, a remarkably strong compact would be made.

St. JOHN, N.B., May 27th, 1893.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

SPECULATION is somewhat active as to the future of prices. There are those who hold to the view that prices have reached the maximum and that it is not unlikely that before long a shrinkage may be expected. In one way it is natural that this view should prevail. Prices for pine have stiffened to so marked a degree in a short space of time that as is the case with a rapid advance in any line of stocks, there is always fear of a rebound sooner or later. And general experience shows that the rebound is almost certain to come, and not unfrequently more sudden than is expected. But there is the contrary fact that stocks continue about as scarce as ever. In fact stocks are just so low that until the new cut comes from the mill, which will be some time yet, shipping interests for the time of the year will fall a good deal below the average. Moreover, the demand keeps up and it is hard to find anyone who does not consider white pine a profitable article of merchandise to hold.

DESTRUCTIVE FIRE.

It is some time since this lumber centre has been devastated with as destructive a fire as broke out here on 21st inst. A little spark and a strong southwest gale did the work. The spark is said to have started from the chimney of the Briggs & Co.'s factory, on what is known as the Middle ground, and was carried to the dismantled mill plant of Sample & Camp, on the

docks, where there is a number of piles of lumber. Here it found rich food, and in the twinkling of an eye the single spark had grown into a roaring mass of flames, and started on its mad career. Thence the flames leaped to the east side just below Bristol street and north of the City Hall, where are located a large number of buildings, including hose house No. 6, J. E. Winkler's ice houses, eleven residences on Tilden street, and on both sides of Washington avenue down to Holden street were quickly licked up. Then the sparks were carried across the old bayou into the premises of the George F. Cross Lumber Co. The planing mill, lumber in the yard, and a dozen tenement houses melted like snow. Next came the Allington & Curtis Manufacturing Company's extensive plant, and Passot's old soap factory, all of which were wiped out. Here the fire struck Jefferson avenue, and in an hour some of the finest residences in the city were in ashes. The flames made a clean sweep north to Emerson street, where the fire continued eastward, south of and along Emerson street, toward the city limits. It cut a wide swath on Owen, Howard, Sheridan avenues, and other streets east. The Orphan's home succumbed early, but the inmates were all removed to places of safety. The patients were all removed from St. Mary's hospital which was in extreme danger for a time, but was saved. The fury of the gale carried the sparks long distances, and at six o'clock the fire had reached the planing mill factory and lumber yards of E. Germain, which were destroyed, as well as a large number of dwellings in that section of the city. The scenes witnessed during these two hours of wind and flame are beyond the power and pen to adequately portray. The excitement was at fever heat, and in many instances houses caught fire and were destroyed before the occupants were hardly aware they were in danger. The loss is estimated at a million and a half dollars, with an insurance of about one-half. Fully 1,000 men employed in the factories burned are out of employment, and hundreds of families are homeless, as about 300 buildings were burned. Several deaths by burning have taken place.

BITS OF LUMBER.

Nearly all the mills of the Huron shore are in operation.

The tug Owen, owned by Gilchrist & Fletcher, of Alpena, will tow log rafts from Georgian bay to Alpena.

Alger, Smith & Co. have a crew of men under R. J. Anschutz, of Tawas, looking pine land on the iron range near Duluth.

W. W. Sutherland expects to handle 15,000,000 feet of hardwood lumber this season. Hardwood lumber is in active demand.

Captain Ryerse, of the tug Saugatuck, has contracted to tow 10,000,000 feet of logs from Georgian bay to the Cheboygan Lumber Company's mill, at Cheboygan.

The value of the products of planing mills, sash and door and box factories in Saginaw last year was \$5,210,000, employing 2,300 men, and paying in wages for the year \$812,000.

It is not altogether certain that Ross, Bradley & Co., of Bay City, who were supposed to have completed arrangements to remove to West Bay City, will actually make the change. Certain inducements are being held out to them to remain at the home point.

Sibley & Bearinger have 12,000,000 old logs in the Ocqueoc, which were hung up last season, but are now out and will be taken to Cheboygan to be manufactured. They have also 8,000,000 to come from Georgian bay to Tawas, and will probably purchase 10,000,000 to 15,000,000 more.

Lumbering operations have suffered severely from the high state of the water at Menominee. Never in its history has the Menominee river been so high. The logs are piled in one solid jam from 10 to 30 feet high and extend up the river from the upper dam a distance of six and a half miles. In the jam there are 200,000,000 feet of logs.

SAGINAW, Mich., May, 27, 1893.

SPANISH RIVER.

[Special correspondence CANADA LUMBERMAN.]

ACTIVITY is beginning to show itself in lumber in this district. Logs are coming in fast to the Spanish boom. The water being a good height this spring it is anticipated that all logs will be easily got to the boom. About two hundred million feet are expected to go through the Spanish river boom this season.

The Hull Lumber Co. are building a log railroad on their berth and will operate all summer.

Culter & Savidge, who are operating on the Spanish river, are erecting a sawmill about six miles west of here on the site of the burned mill, which was at one time used by the Bowswell Company.

Men for the drives are being paid higher wages than last spring.

The opinion prevails in this district that the long talked of deal between the Cook Bros. and Alger, Smith & Co., of Michigan, for the purchase of the berths, sawmill, and other property of the former, at a sum placed by some as high as two million dollars, is finally off. The American firm had as many as forty men at one time in the woods looking over the pine.

SPANISH RIVER, Ont., MAY 26, 1893.

HONORA.

[Special correspondence CANADA LUMBERMAN.]

LUMBERMAN readers may not know the name Honora as a lumber town. We are just twelve miles from Little Current. Large quantities of cedar are found at this point, which are used for ties, telegraph poles, paving, etc. Probably the largest quantity of cedar is being taken out by Mr. Jno. Collins, foreman for Dr. W. L. Herriman, of Lindsay. The stock has been purchased by Captain S. Fraser, agent for the Cleveland Cedar Co., who have secured most of the season's out-put of cedar on the Island. The same concern have secured the option until June 1st to buy the property, consisting of 5,000 acres, belonging to Dr. Herriman, which comprises nearly all the cedar, pine and pulpwood in this vicinity; the saw mill, shingle mill and docks, together with four improved farms, are also included in the option, and if the Company purchase they purpose manufacturing shingles here extensively for the American markets.

Loading commenced here about the 15th inst., and most of the timber is being sent to Chicago.

Capt. Fraser is loud in his praises of the quality of cedar found in this locality.

Among others engaged in the cedar business at this point, besides Dr. Herriman, are Wm. Needler, L. W. Ferguson, Irving & Co., and Wm. Idle.

It is expected that the sawmills will be idle here this season, as the entire stock of logs has been purchased by J. & T. Conlon, of Little Current. The new shingle mill of this firm is ready for operation.

HONORA, Ont., May 23, 1893.

PUBLICATIONS.

It rarely falls to the lot of any journal to achieve the marvellous success that has fallen in the lines of the Ladies' Home Journal, of Philadelphia. This monthly has to-day an actual circulation of nearly one million, won solely on the merits of the journal itself. The editor Mr. Edward W. Bok is to be congratulated.

The latest arrival in the arena of trade journalism is the Canadian Engineer, published in Toronto and Montreal and devoted to the mechanical, mining, marine, locomotive, sanitary and other branches of the engineering trades. The promoters of the new paper have given us a bright, newsy journal and in its special field it ought to find general favor.

The Cosmopolitan, of New York, scores a success in reproducing in its May number, almost simultaneously with the daily papers, an elaborate description of Professor Gray's marvellous invention, the Telautograph, which reproduces the handwriting, or the work of the artist, simultaneously, thousands of miles distant from the place where the writer or artist is sitting. The number throughout is very attractive. Mr. Howells' purpose in "The Traveller from Altruria" is, month by month, becoming more evident, and is now receiving wide attention at the hands of the critics all over the world.

"The Land of the O-O" is a somewhat nondescript title that Mr. Ash Slivers, sr., gives to his book of travels that has recently been published by the Cleveland Printing and Publishing Co., of Cleveland, Ohio. Mr. Slivers, when he is addressed by his business associates, is known as Mr. C. C. Burnett, president and general manager, of the Sturtevant Lumber Co., of Cleveland, and "The Land of the O-O" is a description of a holiday trip in the Sandwich Islands. The ordinary man may experience some difficulty in establishing a connection between literature and lumber. The two vocations hardly run in parallel lines, and yet when one has perused Mr. Burnett's literary effort we think that they will agree with us that he knows how to write an interesting and attractive book. The style is graphic and at times eloquent, and shows a very thorough acquaintance with current literature, indicated by not unfrequent and apt quotations or literary reference. Mr. Burnett evidently enjoys travel and in his visit to Hawaii he has found much of interest and worthy of note. A quiet humor runs through the whole work, adding lightness and readability to the book. Fifty well-executed illustrations adorn the book. The typography of the book is first-class and it is bound in tasty cloth, bevel edges.

THE NEWS.

ONTARIO.

Geo. Cormack, Whitchy, has sold his lumber yard to The Jackson Co.

—Business is brisk at the sawmill and stave factory of D. S. Clemens, Winterbourne.

—The McKechnies, of Durham, are rebuilding their sawmill at Glenroaden, recently destroyed by fire.

J. J. McNeil, Mayor of Gravenhurst, is to erect a new saw and shingle mill at Edginton, near the line of the Parry Sound Railway.

—The Rathbun Company, of Deseronto, have received an order for 5,000 doors from England. They have also been making shipments to Africa and Australia.

—A correspondent at Hepworth, Ont., writes: "Things in the lumbering line are in very good shape in our district this season, so far at least as prices are concerned."

—The estate of Thos. Green & Co., of London, is to be wound up, and the planing mill, employing thirty hands, has shut down. The establishment is to be sold in accordance with the will of the late Thos. Green.

—The lumber combine of the Lake of the Woods saw mill men is said to be completed with the Keewatin Lumber Company out of the deal. D. C. Cameron is to be general manager, and J. W. Savage, whose name was mentioned in this connection, is to be one of the directors. The central offices will be located at Norman, the store now occupied by Messrs. Cameron & Kennedy to be taken over and adapted to that purpose.

—The assignee to the estate of the Casselman Lumber Co., Ottawa, has notified the creditors that a dividend of 2½ per cent. will be paid. The claims filed amounted to \$94,983 and the dividend on this after retaining \$728 for legal and other fees amounts to \$2,374. The largest creditors are the Bank of Commerce, J. G. McKenzie & Co., Montreal; The Rathbun Lumber Co., Deseronto; Frothingham & Workman, Montreal; D. McCormick, Montreal. The estate has still on hand some 40 odd cottages, and about 60 village lots in the village of Casselman.

MANITOBA AND THE NORTHWEST.

John Weibe, Greta, Man., lumber, has assigned.

John K. Ross, lumber, Austin, Man., has sold out to Bright & Wheeler.

J. S. Edmonson, lumber, Pipestone, Man., is reported to have sold out to Crawford & Co.

QUEBEC.

—A boom belonging to Lindsay & Bailey broke over the waves at Aylmer a week ago, and an immense quantity of logs were swept recklessly over the lake and down with the current towards Ottawa. The lake presents a desolate scene, being strewn for several hundred yards with wreckage.

—Joshua W. Collins, who has carried on a lumber and commission business in Montreal for several years, chiefly in American woods, has assigned. His assets are small and liabilities comparatively large. He has been going behind for some time and is reported to have kept quite a line of notes under discount. The direct liabilities are \$6,700 and indirect \$7,800. He owes the Kentucky Union Lumber Co., Clay city, Ky., \$1,529 and Irwin & Hascall, Goshen, Ind., \$991.

NEW BRUNSWICK AND NOVA SCOTIA.

—About 40,000,000 feet of logs and cut lumber will come down the Restigouche this spring. The logs are largely cedar.

—In Campbellton, N.B., the old firm of A. McKendrick & Son, has dissolved partnership, the senior retiring from business. A. D. McKendrick, jr., has formed a partnership with Henry Connacher, under the style of Connacher & McKendrick.

—David Richards' large shingle and clapboard mill is nearing completion. There is now in Campbellton and vicinity six large sawmills and quite a number of smaller ones. They have a large stock to manufacture this season. Lumbermen are now up the river bringing on their drives which will be the largest for many years, last year being a favorable one for them.

FIRES AND CASUALTIES.

FIRES.

Bull's sawmill at Ormsby, Ont., was burned on the 27th ult. Loss \$5,000.

—The saw mills of Jas. Stark, of Paisley, Ont., were destroyed by fire on the 21st ult. Loss about \$3,000.

—The stave and hoop mill of J. B. Coates, at Blenheim, Ont., was destroyed by fire on 22nd ult. About fifty hands were employed. Loss, \$2,500; partly insured.

—Wagner's saw mills, Port Elgin, Ont., were totally destroyed by fire on 26th May. The machinery was new. Loss on plant \$3,000.

—Terrible forest fires are raging in the vicinity of Cadillac, Mich. Margrudge's saw mill was burned, and the lumber camp of Louissand's was also destroyed; four men burned to death and eight others missing.

—Lumber to the value of \$5,000 was destroyed by fire on the docks of Fassett & Bellinger, Tonawanda, N.Y., on 26th ult. Every clue thus far, it is said, points to the fact that the lumber shovers are responsible for the fire.

Slavenwhite Bros.' new sawmill at St. Margaret's bay, Halifax county, N.S., with all the machinery and a quantity of finished lumber, were entirely destroyed by an incendiary fire a week ago. Last September the firms mills were set on fire and burned, and now those that replaced them have been lost. No insurance.

CASUALTIES.

—Henry Fisher had his hand badly cut while running the saw in the mill at Summerhill, Ont.

—A man named Fleury became entangled in some belting in a Rimowski saw mill a fortnight ago and was instantly killed.

—Andrew Cadieu, of Penetanguishene, was killed in the mill of the Georgian Bay Lumber Co. a week ago by being caught in a pulley.

—John Watson, of Thamesford, Ont., while skidding logs at the Ferguson mill, was kicked by a horse near by, and seriously, if not, fatally injured.

—Frank Burd, a filer in the sawmill of the Parry Sound Lumber Company, had his left arm completely cut off whilst filing on the large circular saw.

—Frank McLeod, of Tilbury Centre, Ont., met his death at Sicklesteel's stave mill, at McGregor, by being caught in a belt and was dragged under the shaft.

—Charles Collin, employed in a Calgary lumber camp, was thrown from his horse the other day, and his foot catching in the strap, he was dragged to death.

—W. D. Ritchie, who has been in the employ of the Bronson & Weston Lumber Co. for the past thirteen years was drowned while attempting to break a gang of logs.

—James McMullen, of Ironsides, Que., was drowned at Chlesen two weeks ago. He was on his way to Gilmour & Hughson's Gatineau mills, where he had secured work.

—While examining a new planer in Bettes & Chaffey's Mill at Bracebridge, Ont., Geo. Neal got his hand too close to the under cylinder and had it so badly cut and crushed that it had to be amputated at the wrist.

—While working at a lath machine in the Pearce Co.'s sawmill at Marmora, Ont., William Southworth, a boy 14 years of age, was struck by a piece of tin, producing internal injuries, from which he died within 24 hours.

—While cutting steel at John Bertram & Sons' tool works, Dundas, Ont., Mr. Millington was struck on the chin by a piece of hot steel weighing three or four pounds, cutting quite a large gash and burning him severely.

—Lindsay Morgan, of Osnabrock Centre, was instantly killed a few days ago while working with a circular saw. The saw while running at a high rate of speed broke and flew from its fastenings, struck Morgan, cleaving his head, neck and chest.

—A despatch from North Bay says a team of horses belonging to Mr. John Mackey, of Eau Claire, were hauling a car load of lumber from the mill siding to the main line, when the car started rapidly down grade, and the driver being unable to get them out of the way, they were crushed to death between the car and another standing near the main line.

—A sad accident occurred at Kleinburg, Ont., by which a well-known farmer by the name of John Kirts lost his life. He was waiting at Curl's sawmill for a load of lumber and on going into the mill saw the tail Sawyer removing a heavy slab which had just been cut from the slab. Mr. Kirts at once stepped forward to assist the man, and in so doing the slab caught the saw and Mr. Kirts was thrown against the saw. One arm was severed and a terrible gash was cut in his side. He expired almost immediately.

PERSONAL.

Mr. George J. Cook, president of the Cook Bros. Lumber Co., has been elected a director of the Bank of Toronto.

Mr. R. R. Dobell and Mr. R. M. Cox, of Liverpool, Eng., British lumbermen, well known to the Canadian trade, are at present in this country.

TRADE REVIEW.

Office of CANADA LUMBERMAN, May 31, 1893.

THE GENERAL SURVEY.

ACTIVITY is general in Canadian lumber centres, large and small. The work of the drives is being pursued with comparative ease, and there are few mills that are not nicely into the new cut.

In the northern lumber territories the mills are busy. Of course a large quantity of logs will be towed to the American side, but it does not seem that this will in any serious measure curtail immediately the operations of the local mills.

The trade in New Brunswick are in better feather than they were to be found a month ago. There, as in Ontario, the drives are coming along in splendid shape and an active season's sawing is expected.

A British Columbia correspondent writes that trade is improving on the Coast. A satisfactory local trade is being done, and shipments for export are fair.

Ontario is contributing a fair share to the lumber trade of the country. Nothing very large is to be noted but there is no reasonable ground to complain of dullness.

UNITED STATES.

The stringency in financial circles in the States, resulting during the month in several large failures of commercial and monetary institutions, is not without a depressing influence on lumber.

Commerce is an extremely sensitive plant and calamity cannot befall it at any one point without the whole tree feeling the effect. Lumbermen are scanning closely the accounts of customers, and behind them bankers are watching with all their native astuteness the applications made to them for credit and the securities on which this credit is to be based.

But this much recognized it is within all the facts to say that the lumber trade of the present is in an encouraging shape. The demand is satisfactory at all leading centres. Not in all places, nor in every line, is there equal buoyancy of trade, but taking the broad field over business is good.

a good trade is being done; spruce is least active; while white pine holds its own in price and demand. The cut of Saginaw mills is contracted for months ahead and lumbermen will not budge from the highest prices for any desirable grade of pine.

Sufficient unto the day is the evil thereof—perhaps. The immediate present is bright, but the long-headed lumberman will nevertheless not forget that there are possibilities of breakers ahead, and be guarded and careful accordingly.

FOREIGN.

With the lumber trade abroad it is a good deal a case of hoping against hope. Improved conditions no sooner seem to become apparent before the sky is again clouded and trade continues as flat as ever.

HARDWOODS.

The volume of trade is fair and prices are well maintained. In the British markets, where lumber generally is dull, Farnworth & Jardine remark, in their May circular, of Canadian hardwoods: "Elm has been more enquired for, but with the stock quite ample."

TORONTO, ONT.

Toronto, May 31, 1893.

Table with columns for CAR OR CARGO LOTS and VARD QUOTATIONS, listing various lumber grades and prices.

Table with columns for CAR OR CARGO LOTS and VARD QUOTATIONS, listing various lumber grades and prices.

Table titled HARDWOODS—PER M. FBRT CAR LOTS, listing various wood types and prices.

OTTAWA, ONT.

OTTAWA, May 31, 1893.

Table listing various lumber products and prices for Ottawa, Ontario.

QUEBEC, QUE.

QUEBEC, May 31, 1893.

Table listing various lumber products and prices for Quebec, Quebec.

Table listing various lumber products and prices for Quebec, Quebec.

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Table listing various lumber products and prices for Quebec, Quebec.

BOSTON, MASS.

BOSTON, Mass., May 31.—Lumber news is none too cheery at the Hub in contrast with the bright expectations of a month ago.

Table listing various lumber products and prices for Boston, Massachusetts.

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OSWEGO, N.Y.

OSWEGO, N.Y., May 31.—Conditions are active with a good trade doing and prices firm.

Table listing various lumber products and prices for Oswego, New York.

SIDING.	
1 in siding, cutting up	1 1/2 in selected..... 35 00
picks and uppers..... 32 00	1 1/2 in dressing..... 21 00
1 in dressing..... 19 00	1 1/2 in No. 1 culls..... 14 00
1 in No. 1 culls..... 14 00	1 1/2 in No. 2 culls..... 12 00
1 in No. 2 culls..... 12 00	1 in. No 3 culls..... 10 00
1X12 INCH.	
12 and 16 feet, mill run.....	21 00
12 and 16 feet, No. 1 and 2, barn boards.....	19 00
12 and 16 feet, dressing and better.....	27 00
12 and 16 feet, No. 2 culls.....	15 00
1X10 INCH.	
12 and 13 feet, mill run, mill culls out.....	21 00
12 and 13 feet, dressing and better.....	26 00
12, 10, 14 to 16 barn boards.....	18 00
12 and 13 feet, No. 1 culls.....	16 00
12 and 13 feet, No. 2 culls.....	15 00
14 to 16 feet, mill run mill culls out.....	21 00
14 to 16 feet, dressing and better.....	26 00
14 to 16 feet, No. 1 culls.....	17 00
14 to 16 feet, No. 2 culls.....	15 00
10 to 13 feet, No. 3 culls.....	11 00
1 1/2 X 10 INCHES.	
Mill run, mill culls out.....	17 00
Dressing and better.....	25 00
1X4 INCHES.	
Mill run, mill culls out.....	17 00
Dressing and better.....	24 00
1X5 INCHES.	
6, 7 or 8, mill run, mill culls out.....	20 00
6, 7 or 8, drsg and better.....	25 00
SHINGLES.	
XXX, 18 in. pine.....	3 70
Clear butts, pine, 18 in.....	2 70
XXX, 16 in. pine.....	3 60
Stock cedar, 5 or 6 in.....	4 50
LATH.	
No. 1, 1 1/2.....	2 75
No. 1, 1 in.....	2 00
No. 2, 1 1/2.....	2 50
No. 2, 1 in.....	2 00

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., May 31.—A fair trade is about the best that can be said for lumber. The tangle of financial matters is causing everyone to move slowly. Credit is watched closely, and banks are cautious in their discounts. The labor troubles on the docks are unsettling to trade though not blocking work to anything like the extent that had been anticipated. New men are readily found to take the place of the strikers. Prices keep firm, and various lines of pine continue short.

WHITE PINE.

Uppers, 1, 1 1/2, 1 3/4 and 2 in.....	50 00
2 1/2 and 3 in.....	58 00
4 in.....	62 00
Selects, 1 in.....	42 00
1 1/2 to 2 in.....	43 00
2 1/2 and 3 in.....	51 00
4 in.....	52 00
Fine common, 1 in.....	37 00
1 1/2 and 1 3/4 in.....	37 00
2 in.....	39 00
2 1/2 and 3 in.....	39 00
4 in.....	47 00
Cutting up, No. 1, 1 in.....	29 00
1 1/2 to 2 in.....	35 00
No. 2, 1 in.....	29 00
No. 2, 1 1/2 to 2 in.....	25 00
No. 3, 1 1/2 to 2 in.....	18 00
12 to and 12 in. (No 3 cut).....	24 00
12 and 13 in. (No. 3 cut).....	13 50
12 1/2 and wider.....	15 00
SHINGLES.	
18 in. XXX, clear.....	3 75
18 in. XX, 6 in. clear.....	2 75
LATH.	
No. 1, 4 ft.....	2 60
No. 2, 4 ft.....	2 70

ALBANY, N.Y.

ALBANY, N.Y., May 31.—A more backward season has not been experienced for some years. Very little lumber has arrived here so far, and this has been quickly picked up, as the demand is much larger than the supply. Prices, as a consequence, remain decidedly stiff. It is calculated that the new cut will command anything from \$1 to \$3 per thousand beyond last season's price.

2 1/2 in. and up, good.....	\$58
Fourth.....	58
Select.....	50
Pickings.....	45
1 1/2 to 2 in. good.....	52
Fourth.....	47
Select.....	37
Pickings.....	37
1 in. good.....	52
Fourth.....	47
Select.....	47
Pickings.....	37
Cutting up.....	27
Bracket plank.....	30
Shelving boards, 12 in. up.....	30
Dressing boards, narrow.....	20
LATH.	
Pine.....	\$2 40
Spruce.....	\$2 40
SHINGLES.	
Sawed Pine, ex. XXX.....	\$4 35
Clear butts.....	3 10
Smooth, 6x18.....	5 40
10-in. common.....	\$15 \$16
12-in. dressing and better.....	28 34
Common.....	15 17
1 1/2 in. siding, selected, 13 ft.....	40 45
Common.....	15 17
1 in. siding, selected.....	38 42
Common.....	15 17
Norway, clear.....	15 17
Dressing.....	22 25
Common.....	16 18
10-in. plank, 13 ft., dressing and better, each.....	11 15
10-in. plank, 13 ft., culls, each.....	42 55
10-in. boards, 13 ft., dressing and better, each.....	23 75
10-in. boards, 13 ft., culls.....	27 32
10-in. boards, 13 ft., culls.....	17 21

SAGINAW, MICH.

SAGINAW, Mich., May 31.—Nothing is more remarkable than the markedly stolid manner in which the lumber trade here hold to high prices. There is no approach to a letting down of the bars. As a matter of fact there

is very little lumber to sell. Green stuff is coming from the saw in insufficient quantities, some mills not yet running, waiting for logs. And a large part of what will be cut for some time is already contracted for.

FINISHING LUMBER.	
Uppers, 1, 1 1/2 and 1 3/4.....	45 00
2 in.....	46 00
Selects, 1 in.....	40 00
1 1/2 and 1 3/4.....	41 00
2 in.....	41 00
SIDING.	
Clear, 1/2 in.....	24 00
1 1/2 in.....	24 00
Select, 1/2 in.....	24 00
1 1/2 in.....	24 00
TIMBER, JOIST AND SCANTLING.	
2x4 to 10x10, 12, 14 and 16 ft.....	\$11 00
18 ft.....	11 00
For each additional 2 ft. add \$1 1/2; 12 in. plank and timber \$1 extra; extra for sizes above 12 in.	
SHINGLES.	
XXX 18 in. Cedar.....	3 65
XXX Saginaw.....	3 40
XX 14 in. Cedar.....	2 25
18 in. c. h.....	1 75
LATH.	
Lath, No 1, white pine.....	2 35
Lath, No. 2, W. pine, Norway.....	1 65

NEW YORK CITY.

NEW YORK, May 31.—Business is not by any means buoyant. Building operations are fairly active, but they are not of the kind to cause any large consumption of lumber. Spruce is in stock in much larger quantities than there would seem to be any present demand. White pine is on liberal call, but with supplies sufficient to meet the demand. As the centre of financial operations New York generally is affected in a noticeable degree by present financial disturbances, and there is a strong disposition in all lines of commerce to move slowly.

WHITE PINE—WESTERN GRADES.

Uppers, 1 in.....	\$44 00
1 1/2, 1 3/4 and 2 in.....	46 00
3 and 4 in.....	55 00
Selects, 1 in.....	40 00
1 in, all wide.....	41 00
1 1/2, 1 3/4 and 2 in.....	43 00
3 and 4 in.....	52 00
Fine common, 1 in.....	36 00
1 1/2, 1 3/4 and 2 in.....	38 00
3 and 4 in.....	46 00
Cutting up, 1 in. No. 1.....	28 00
No. 2.....	21 00
Thick, No. 1.....	29 00
No. 2.....	24 00
Common, No. 1, 10 and 12 in.....	22 00
No. 2.....	20 00
No. 3.....	17 00
Coffin boards.....	20 00
Box, in.....	\$17 00
Thicker.....	17 50
Ceiling, loose, fig. No. 1.....	42 00
No. 2.....	35 00
No. 3.....	24 00
Shelving, No. 1.....	30 00
No. 2.....	25 00
Molding, No. 1.....	30 00
No. 2.....	27 00
Bevel siding, clear.....	22 50
No. 1.....	22 00
No. 2.....	20 00
No. 3.....	16 00
Norway, clear, and No. 1.....	21 00
No. 2.....	20 00
Common.....	15 00

COMING SALES.

The Georgian Bay Consolidated Lumber Company announce in our advertising columns that early in August they will sell by auction, important pine timber berths in the Nipissing district. These properties are known to be among the most valuable along the north shore of the Georgian Bay.

TRADE NOTES.

John Milne, of Essex, Ont., proprietor of the Canadian Hollow Blast Grate Co., is making important additions to his manufacturing buildings and remodelling his offices.

The following letter speaks for itself: "Fall River Line, between New York and Boston, on board steamer 'Plymouth,' New York, April 29th, 1893, Magnolia Anti-Friction Metal Co., New York. Dear sirs.—In answer to your enquiry as to our experience with the Magnolia Metal, we desire to say that we have it in the intermediate crank pin brasses of the Plymouth, and it has given us every satisfaction, and from our experience with it we cheerfully recommend it for such work. Yours very truly, H. J. Benson, Chief Engineer, S. S. Plymouth."

MONEY.

JOHN Stuart Mill defines it as "a mere contrivance for facilitating exchanges;" a definition followed by another British writer, Jevons, in his book, "Money and the Mechanism of Exchange." Money is defined usually as a "measure of value;" it is something by the possession or surrender of which we measure the value to us of other articles. It need not be gold or silver. In Homer's time oxen were money; the Abyssinians used salt; the natives of the west coast of Africa used sea-shells; the early settlers in Virginia used tobacco; Marco Polo says that the Chinese used paper—not paper redeemable in coin, but paper made valuable, by the Great Khan's orders. So really money is anything that is generally accepted as of value, which serves to do away with trading "in kind" or barter. It makes no difference what its nature is, so long as it is something which is of value to the people at large.

STEAM PUMPS



Duplex

AND SINGLE

Steam

AND POWER

Pumps

If you require a pump for any duty, of the latest and most improved pattern, and at close prices,

WRITE US

NORTHHEY
M'FG CO.
LIMITED
TORONTO - ONT.

WOOD PULP.

WRITING of the production of wood pulp in the United States, a contemporary says: "When the manufacture of pulp in this country was in its infancy the material was obtained principally from New York State, but as supplies became reduced and more difficult to reach, manufacturers have sought other fields. Within the past few years the spruce forests of Maine have been drawn upon liberally, and during the past season a syndicate of manufacturers has made large purchases of timber lands in Canada along the United States border for the purpose of cutting the wood and reducing it to pulp. The extensive character of this business has a material influence upon the cost of timber and lumber for commercial purposes, especially as pulp manufacturers have commenced to discover that the best logs serve their purposes more readily than poor stuff. Considerable foreign stock is still imported, but the domestic production, it is thought, will soon satisfy all demands. Norway is one of the most important pulp producing countries, and a recent communication gives some idea of the output. The exports of what is called "mechanical wood pulp" were 115,000 in 1886, but last year they were 210,000 tons. Restriction of production was attempted last year, and concurrently there was a decrease of 20,000 tons in the exports, and the trade is now growing in other parts. In addition to the mechanical wood pulp there is also a considerable export of chemical wood pulp from Norway, which is stated as about 28,500 tons for the year."

SHIP BUILDING IN ENGLAND.

LOYD'S returns show that there are 354 vessels of 621,668 tons gross under construction in the United Kingdom at the close of the year ending March 31st, 1893, as compared with 493 vessels of 843,078 tons at the close of the corresponding quarter in 1892, thus showing that the work has diminished by over 220,000 tons, or 26 per cent. Of the vessels now being built there are 236 steel steamers, 20 iron steamers and 7 wooden and composite steamers, the total steam tonnage being 535,291; while as regards sailing vessels there are 51 being constructed of steel, 2 of iron and 38 of wood and composite, the gross tonnage being 86,377. The returns show that only Belfast and Hartlepool have held their own, all the other rivers suffered alike from the recent depression. The number of vessels being built abroad affords no room for the suspicion that shipbuilding is leaving Great Britain, the principal figures being: Trieste, 2 vessels of 4,900 tons; Antwerp, 1 vessel of 2,600 tons; Copenhagen, 7 vessels of 8,141 tons; Nantes and St. Nazaire, 9 vessels of 15,240 tons; Bremerhaven, etc., 8 vessels of 10,091 tons; Danzig, 2 vessels of 7,500 tons; Hamburg, etc., 16 vessels of 29,458 tons; Rostock, etc., 8 vessels of 7,725 tons; Amsterdam, 2 vessels of 3,650 tons; Kinderdijk, 2 vessels of 3,540 tons; and Philadelphia, etc., 9 vessels of 14,010 tons.

HOW TO SAW LOGS.

By J. H. MIXER.

THERE is nothing especially difficult about setting a log right, and any practical Sawyer ought to be able to do it, but it is unfortunately not to be said of all of them that they are. In ripping slitches it is not uncommon to see the saw pinched and stopped, the driving belt slips, and the result is often a sprung saw and perhaps a badly injured belt. I remember several years ago that a lot of 100,000 feet of 1 1/2 x 6 in. kiln-dried flooring stock that was sent to market, 50,000 feet was refused by the buyer on the ground that the pieces were only from 5 1/2 to 5 3/4 inches wide at one end while running six inches plump at the other. Investigation showed the cause of this to be a Sawyer who did not know his

business. He would run his log on to the saw, get stuck, back out and start again. He applied water, and kept up this see-saw motion until the cant ceased to pinch and the saw would run through. Each time the saw entered it took another quarter-inch from the six-inch slitch on one end, while when it got fairly started it cut full six inches wide. The stock was the spruce found in the Southern lowlands, which is very springy.

All logs should be set on the carriage so that the saw will run parallel with the straightest way of the log when ripping slitches or deals for an edger. Such a deal goes to the edger, and again we have trouble. The edger shakes, the saws stop, the belts smoke, and sometimes the fire flies. When at last the stuff has been forced through, we have something resembling wheel felloes. The rule stated is imperative, and if sawyers were obliged more than they are, to watch it closely, the result would be time and money saved to the owner of the mill.

ACTED WISELY.

MONETARY TIMES: An attempt was made in the Ontario Legislature to pass a bill to require the holders of timber licenses in the Province to manufacture the lumber in Canada instead of exporting the logs. Ontario, it may be, has the power to make such a regulation; but this is doubtful, as it would be in the nature of a restriction on trade. If such a policy were a wise one, which would be difficult to prove, the regulation would properly fall to the Ottawa authorities. But the Ottawa authorities, whatever their shortcomings, are too wise to impose such a restriction, with the full knowledge that the effect would be to cause an increase in the American duty on Canadian lumber. The Local Legislature, in throwing out the bill to require the owners of timber limits to manufacture the lumber here, did the best thing possible. To have passed it would have been voluntarily to diminish the selling value of our standing timber, a sacrifice for which no adequate compensation would have been received.

PREVENTING FIRES.

IT is pleasant to record the growth of the idea of fire-prevention in wood-working plants in many sections of the country. Ten years ago it was rare to find a planing mill or other combustible plant in which there was any provision made for extinguishing fire. To-day it is the exception to find one of these plants without some provision for fighting the "fire-fiend." Large plants are being equipped with tanks and automatic sprinklers. Smaller plants show up with tanks and barrels, force-pumps and pails, and there seems to be a growing idea that a wood-working plant, while necessarily combustible, is worth at least an effort to save. It may be a rather too enthusiastic view to assert that the effect of the spread of this idea has already resulted in an appreciable decrease in fires, but it is certain that many fires have been prevented by simple means lately. Last month, in one day, I visited three wood-working plants, in which the simple old pail of water and sand had prevented serious fires. Each one of the three plants was saved by the operatives, who had been trained in the use of the ready buckets. That was to me an object-lesson on the immense value of the ounce of prevention, and every mill owner and insurance man could profit by making this a study.—Lumber World.

A GOOD ISSUE.

The June Arena is a mammoth number and one of the best issues of this growingly popular monthly. It contains one hundred and sixty-four pages, of which one hundred and forty-four are in the body of the magazine, and twenty pages of carefully written book reviews by well-known critics.

WANTED AND FOR SALE

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.

WE WANT ALL KINDS OF HARDWOODS. Will pay cash. ROBERT THOMSON & CO., 103 Bay Street, Toronto.

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

WANTED—A SITUATION AS FILER IN A sawmill. Have had nine years' experience with gang and round saws. Address "H," 3 Maitland St., Halifax, N.S.

WANTED—BY YOUNG MAN—SITUATION as book-keeper, cashier or correspondent; rapid worker; energetic, and thoroughly reliable and experienced; competent to take charge of manufacturer's office. Address: "Accountant," care CANADA LUMBERMAN, Toronto.

LUMBERMEN

EXPERIENCED SHIPPER OPEN FOR ENGAGEMENT middle of May. Good bookkeeper and correspondent. Competent to take charge of mill. References furnished. Address: "Inspector," care CANADA LUMBERMAN, Toronto.

RAILS FOR TRAMWAYS

NEW AND SECOND-HAND STEEL AND iron rails for tramways and logging lines, from 12 lbs. per yard and upwards; estimates given for complete outfit.

JOHN J. GARTSHORE,
49 Front St. West, Toronto.

TO EASTERN STATES LUMBERMEN.

AN EXTENSIVE HANDLER OF PULP wood, fir, spruce, canoe birch and poplar, is desirous of finding a market for some in the Eastern States—New York or Boston preferred. Is prepared to ship any size required per schooner from Quebec. Parties handling same should communicate with I.C.L., care CANADA LUMBERMAN, Toronto.

WANTED FOR CASH.

ASH AND SOFT ELM DIMENSION STOCK cut to exact sizes. Apply for specification, prices, etc., to

P.O. Box 2144,
NEW YORK.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly firsts and seconds; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Red Birch Lumber, 1 and 1 1/2, all thickness; also Red Birch Squares 5 x 5 and 6 x 6, ten feet and over long. Address all particulars as to dryness, quality, quantity on hand and price, to P.O. Box 2144, New York, N.Y.

AUCTION SALE

— OF —

CANADA

PINE TIMBER LIMITS

IN ORDER TO WIND UP THE AFFAIRS OF "The Georgian Bay Consolidated Lumber Company," the following Timber Berths will be sold by public auction in the City of Toronto, during the early part of August next.

Berths Nos. 44, 45, 60 and 61, each containing 36 square miles, more or less, tributary to the Wabigoon River.

Berths (south halves of 41 and 49), each containing 18 square miles, more or less, situated on Lake Wabigoon.

These Limits are in the District of Nipissing, on the North Shore of the Georgian Bay. The waters of Lake and River Wabigoon empty south into the French River, thence into the Georgian Bay. The licenses give the right to cut all kinds of timber. The ground rent is \$300 per square mile, and the Crown dues are \$1.00 per thousand feet 1 s. m. for pine saw logs.

Notice will be given later on of the time of sale, and the terms and conditions will be made known on the day of sale.

THE GEORGIAN BAY CONSOLIDATED LUMBER CO.,
24 King Street West,
Toronto, April 2nd, 1893. Toronto, Canada.

SAW AND SHINGLE MILL FOR SALE

At Proton Station on the G.P.R.
Containing 3 1/2 Acres of Land

Mill Capacity from 10,000 to 15,000 feet per day

THE PROPERTY IS SITUATED IN ONE of the best hardwood districts in the country.

Two small houses, stable, etc., on the property. Mill is running, and can be seen at any time. Terms easy.

For full particulars apply

235 QUEEN STREET EAST,
Toronto.

IMPORTANT SALE

— OF A —

LARGE AND VALUABLE

TRACT OF TIMBER AND MINERAL LAND

THE TIMBER AND MINERAL PROPERTY of the Scottish Carolina Timber & Land Company, Limited, in liquidation, situate in Haywood and Madison counties, western North Carolina, will be offered for sale at public auction at the Court-House door, at Knoxville, Tennessee, on

Wednesday, June 14th, 1893

This splendid tract of land is estimated to contain about forty thousand acres, a large part of which is heavily timbered with poplar, white-pine, cherry, walnut, hickory, maple, birch, locust-wood, hemlock and other woods. After the timber is removed from the lands, the property will still be valuable for agricultural and grazing purposes, and for the rich deposits of iron-ore and other minerals upon it.

This property having come into the hands of mortgagees, must be sold, and offers a rare chance to investors or practical lumbermen. For further description or particulars, apply to

LEON JOURJOLMON, Attorney,
Knoxville, Tennessee.

VALUABLE

Timber Lands

— AND —

Saw Mills

FOR SALE

AT PARRY SOUND

THE MILL IS SITUATED ON THE WATERS of Parry Sound, and has good shipping facilities. The largest vessels or steamers on the lakes can load at the lumber docks. The mill will cut about twenty thousand feet of lumber and twenty-five thousand shingles in ten hours.

There are about seven thousand five hundred acres of timber pine, hemlock, birch, ash, oak, spruce, bass-wood, etc.

The timber is free of dues.

Parry Sound is the terminus of the Ottawa, Arnprior and Parry Sound Railway, now in process of construction.

Price: Twenty-five thousand dollars.

Terms as may be agreed upon.

WM. BEATTY,
Parry Sound.

Lumbermen

YOUR BUSINESS IS HELPED BY

ADVERTISING.

... IN ...

CANADA LUMBERMAN

WRITE FOR PARTICULARS

3½ Cents a day—

That isn't much money, is it?

About twenty-five cents a week or so.

And a man must be pretty hard up if he hasn't that much to spend every week.

Times are hard, they say; but if they are hard now to your family and yourself, what will they be to your family without you?

That's worth thinking about.

We think that no man should be without life insurance when it can be had at such a low rate as 3½ cents a day from the Manufacturers' Life, Yonge Street, corner Colborne, Toronto.

Write to us and we will give you all particulars.

DONOGH & OLIVER



WHOLESALE DEALERS IN

LUMBER



OFFICE
Nos. 213, 214 and 215

Board of Trade Building

Toronto, Ont.

Representative Lumber Manufacturers and Dealers

Towns	Railway, Express, or nearest Shipping Point	NAME	BUSINESS	Power, Style and Daily Capacity
Ottawa, Ont.	Ottawa	Booth, J. R.	Lumber, Wholesale and Retail.	Steam, Circular and Band Mill
Ottawa, Ont.	Ottawa	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 450m
Ottawa, Ont.	Ottawa	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars
Ottawa, Ont.	Ottawa	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	Wat., Gang and Band, Saw 400m, Lath 70m
Parry Sound, Ont.	Utterson	Conger Lumber Co.	Lumber, Wholesale and Retail.	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Parry Sound, Ont.	Parry Sound	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	2 Mills, Water, 1 Band, 2 Gangs and 3 Circulars
Muskoka Mills, Ont.	Penetanguishene	Muskoka Mill and Lumber Co., Head Office, Arcade, 24 King st. w., Toronto	W. Pine Lumber, Lath and Bill Stuff, all lengths	Water, Gang, Circular, Saw 90m, Shingles 70m, Lath 30m
Alexandria, Ont.	Alexandria	McPherson, Scheil & Co.	Cheese Box Factory, Pine, Spruce, Cedar	Circular, 3m
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 40m
Barrie, Ont.	Barrie	Dymott & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 16m
Harrow Hay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar	Stm., Band, Cir., S. 75m, Sh. 60m
Blind River, Ont.	Blind River	Blind River Lumber Co.	Oak, Oak Railway Ties, Paving Blocks	Waukegan mill, stm., 200m; Pt. Severn mill, water, 120m
Hubbardsburg, Ont.	Fenelon Falls	Boyd, Mossom & Co.	2 Saw, Sh. and Lath Mills, Pine, Hem., Bl. Birch	Steam, 2 Circular, 50m
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Wholesale and Retail.	Steam, Circular, 60m
Barrie, Ont.	Barrie	Burton Bros.	Lumber, Shingles, Wholesale	Steam, Cir., Saw 140, Sh. 200
Waukegan, Ont.	Waukegan	Georgian Bay Consol. Lumber Co. Hd. office arcade 24 King st. w., Toronto	Lumber, Wholesale and Retail.	Water, Band and Circular, 100m
Calabogie, Ont.	Calabogie	Carswell, Thistle & McKay	Pine only	Steam, Circular, 25m
Callander, Ont.	Callander, G.T.R.	John B. Smith & Sons	Lumber, Wholesale and Retail.	Steam, Circular, 4m
Collins Inlet, Ont.	Collins Inlet	Head Office, Strachan Ave., Toronto	White and Red Pine Lumber, Bill Stuff, Lath and Shingles	Steam, Circular, 200m
Comber, Ont.	Comber	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	Steam, Circular, 25m
Glamis, Ont.	Pinkerton	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 4m
		McIntyre, N. & A.	Saw, Shingle and Lath Mill, Timber Land, Hemlock, Pine, Lumber, Hardwoods	Water, Band and Circular, 100m
		BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hacks, Whol. and Ret.	Steam, Circular, 25m
		Heath, Taft and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 4m
		Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Water, Band and Circular, 100m
		Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular, 25m
		Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Steam, Band and Circular, 100m
		Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail.	Steam, Circular, 25m
		Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Band and Circular, 100m
		Mowry, J. W. & Sons	Lumber, Wholesale and Retail.	Steam, Circular, 40m
		Gordon, James	Exp. and dfr. in Am. Hacks, made to specification	Steam, Circular, 200m
		Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwoods, Whol. Cherry, White Ash, Hardwoods, Wholesale	Steam, Circular, 200m
		Greenides, W. S.	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 200m
		Cameron & Kennedy	Lumber, Wholesale and Retail.	Steam, Circular, 200m
		Minnesota & Ontario Lumber Co.	Hardwoods, Shingles, Lath, Handles	Steam, Circular, 200m
		S. B. Wilson & Son	Lumber, Wholesale	Steam, Circular, 200m
		Campbell, A. M. & Co.	Lumber, Wholesale	Steam, Circular, 200m
		F. N. Tennant	Lumber, Wholesale	Steam, Circular, 200m
		Donogh & Oliver	Lumber, Wholesale	Steam, Circular, 200m
		Victoria Harbor Lumber Co.	15 Saw, Shingle and Lath Mills, White Pine, Whol.	Steam, Circular, 200m
		W. N. McEachren & Co.	Lumber, Wholesale	Steam, Circular, 200m
		James Tennant & Co.	Lumber, Lath, Shingles, etc., Wholesale	Steam, Circular, 200m
		Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationery, 100m
		Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 120m
		DeLaplante & Bowden	Pine and Hardwood Lumber, Whol. and Retail.	Steam, Circular and Gang, 60m
		Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Band, 50m
		Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hacks, Whol.	Steam, Circular, 200m
		Roberts, Joseph & Fils	Saw and Planing Mills, Sash, Doors and Blinds, Int. Fin, Spruce, Hardwoods, Wholesale	Steam, Circular, 200m
		SHEARER & BROWN	4 Sawmills, Oak, Ash, Elm, Pine, Hem., Dm.	2 Stm., 2 Wat., Band, Cir., 40m
		MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 200m
		Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
		James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 35m
		DAVIDSON, E. D. & SONS	15 Saw, Shingle and Lath Mills, Pine, Spr., Hwd.	Water, Circular and Gang, 200m

Lumbermen desirous of being represented in this Directory can obtain information in regard to rates by communicating with the Publisher.

LUMBER TRUCK WHEELS

The Montreal Car Wheel Co.

... MANUFACTURERS OF ...

Charcoal Iron Chilled

RAILROAD WHEELS

OFFICES:

NEW YORK LIFE INSURANCE BUILDING, MONTREAL

WORKS: LACHINE, QUEBEC

We make a specialty of Wheels suitable for the requirements of Lumbermen and Street Car Service, and can supply them Bored, Finished and Balanced.

CORRESPONDENCE SOLICITED

OAK TANNED BELTING

TORONTO
20 FRONT STREET
TELEPHONE 4-5

THE J.C.M^cLAREN BELTING CO MONTREAL

MACHINERY

FOLLOWING LIST OF NEW AND SECOND-HAND BOILERS, ENGINES AND GENERAL MACHINERY FOR SALE BY THE CANADA MACHINERY AND SUPPLY CO., BRANTFORD, ONT., DEALERS IN NEW AND SECOND-HAND MACHINERY AND SUPPLIES:

- ONE BOILER, TO BRICK IN, 44 IN. DIA. X 11 FT. 7 IN. LONG, 41 3/4 IN. TUBES, IN FIRST-CLASS ORDER.
ONE BOILER, TO BRICK IN, 44 IN. DIA. X 11 FT. 8 IN. LONG, 38 3/4 IN. TUBES, IN FIRST-CLASS SHAPE.
THREE 25 H.P. PORTABLE LOCO. FIRE BOX BOILERS, IN GOOD ORDER.
ONE 20 H.P. RETURN TUBULAR BOILER, TO BRICK IN.
TWO 6 H.P. FIRE BOX BOILERS FOR CHEESE FACTORIES.
ONE 12 X 16 SLIDE-VALVE ENGINE, BECKETT'S MAKE.
TWO 9 X 12 SLIDE-VALVE ENGINES, GOLDIE & McCULLOCH AND MORRISON MAKES.
ONE 6 1/2 X 9 SLIDE-VALVE ENGINE, COPP, IRON & BARRY MAKE.
TWO 5 1/2 X 9 SLIDE-VALVE ENGINES, BECKETT'S MAKE.
ONE 6 H.P. ENGINE, UPRIGHT, WITH 5 H.P. BOILER COMBINED ON ONE CAST IRON BASE.
ONE 15 H.P. ENGINE, ENGLISH MAKE.
ONE 11 H.P. LEONARD MAKE ENGINE, NEARLY NEW.
ONE 12 H.P. HORIZONTAL PORTABLE ENGINE AND BOILER ON SKIDS; AMES & CO., MAKERS, OSWEGO, N.Y.

- MACHINERY:
ONE 24-INCH MCGREGOR, GOURLAY & CO. MAKE HEAVY SURFACE PLANNER, ALMOST NEW.
TWO 24-INCH GANT, GOURLAY & CO. MAKE LIGHT SURFACE PLANERS, IN GOOD ORDER.
ONE GOLDIE & McCULLOCH THREESIDE MOULDER.
ONE ONESIDE MOULDER.
TWO 14-INCH WHEELS BAND SAWING MACHINES.
ONE ALMOST NEW VERTICAL SPINDLE BORING MACHINE, MCGREGOR, GOURLAY AND CO'S MAKE.
ONE ALMOST NEW IRON TOP JIG SAW, COWAN AND CO., MAKERS.
ONE GOOD SHAPER.
SIX GOOD SAW TABLES.
ONE NEARLY NEW GOLDIE & McCULLOCH TENONER, WITH DOUBLE COPIES.
ONE WOOD FRAME TENONER IN GOOD SHAPE.
TWO UPRIGHT SWING SHINGLE OR HEADING MACHINES, WITH JOINTERS.
ONE ALMOST NEW GENUINE "BAILEY" GAUGE OR HANDLE LATHE, WITH COUNTERSHAFT.
ONE ALMOST NEW SPINNING LATHE FOR MAKING SPUN METAL WORK, WITH COUNTERSHAFT.
FOUR DOWELL MACHINES.
ONE 20-INCH WATEROUS CHOPPER COMPLETE WITH DOUBLE ELEVATORS, EQUAL TO NEW.
FULL PARTICULARS CHEERFULLY GIVEN UPON ENQUIRY AT THE CANADA MACHINERY AND SUPPLY CO., BRANTFORD, ONT.

SECOND-HAND MACHINERY FOR SALE

- One right hand 12 x 14 straight line engine, our make run a very short time.
One pair of engines, right and left, 16 x 20, can be used separately or together, with two large pulleys and fly wheel and connecting shaft.
Three boilers 45 x 14 with large domes, full fronts all fittings, fixtures and stack.
One 60 x 12 ft. 6 in. steel boiler, with 34 3/4 in. x 12 ft. 6 in. tubes, boiler made of 6 sheets of plate riveted on side seams, furnished complete with all fittings, fixtures and stack, boiler and fixtures are in perfect order having been run but three months.
One 56 x 14 boiler, comparatively new, has been in use less than a year.
One right hand iron saw frame, with mandrel, pulley, boxes, three 34 in. saws, 56 to 100 teeth in each, and one 14 in. saw, suitable for steam or independent friction feed.
One 3-horse heavy saw carriage, Sewry's make, with loss dogs, V and flat track, frame and carriage are in good order, have averaged 35,000 to 40,000 ft. per day, only discarded to put in a hand mill and carriage suitable for same.
One 14 ft hand 3-horse light medium sized saw carriage with V and flat track.
Several portable engines from 12 to 20 horse power.

WATEROUS, BRANTFORD, CANADA

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A HANDLE LATHE FOR MAKING FORK AND RAKE HANDLES.

Inch squares are cut out of slabs, piled one on top of the other in the machine, and it automatically takes the lowest, runs it between the knives and produces the handle without any more attention. Contracts can be secured for all the handles that can be produced with the machine.

WATEROUS, BRANTFORD, CAN.

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Canoe, Yacht and Boat Sails made to order. Perfect Fits Guaranteed. Every description of Lumbermen's Supplies and Waterproof Clothing.

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Lumber and Commission Merchant

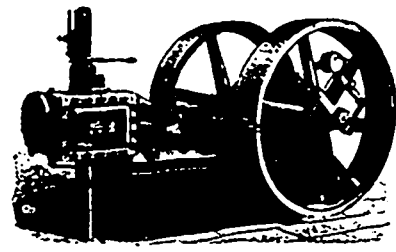
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AMHERST - - NOVA SCOTIA

THE NORTH SHORE NAVIGATION CO.

Royal Mail Line of Steamers

CITY OF MIDLAND CITY OF LONDON ... FAVORITE ... MANITOU ...

Running in connection with the G.T.R. and C.P.R., will sail during the season of 1893 as follows:

THE CITY OF MIDLAND AND THE CITY OF LONDON will leave Collingwood at 1.30 p.m. every Tuesday and Friday on arrival of G.T.R. morning trains from Toronto and Hamilton, calling at Menford. Leave Owen Sound same day at 10.30 p.m., after arrival of C.P.R. train from Toronto, connecting at Wharton with night train from the south, and stopping at all intermediate ports to Saul Ste. Marie. Returning leave the Sea at daylight, making railway connections at Wharton, Owen Sound and Collingwood.

The FAVORITE will leave Collingwood Monday and Thursday, at 1.30 p.m. for Parry Sound, Byng Inlet, French River and Killarney, connecting there with line steamers for Saul Ste. Marie. Returning stop at French River, Byng Inlet and Midland, making connection there with steamer MANITOU for Parry Sound and G.T.R. for south and east, and at Collingwood with G.T.R. for Toronto and Hamilton.

Commencing Thursday, May 4th

The MANITOU will make regular trips from Penetanguishene, connecting with trains from the south only at Midland, every Monday, Wednesday, Thursday and Saturday on arrival of G.T.R. from all points south and east for Parry Sound, making connection there with the steamer FAVORITE for Byng Inlet, French River and Killarney, where the latter connects with the line steamers for the Sea.

For tickets and further information see folders, or apply to all agents of the G.T.R. and C.P.R., or to C. E. STEPHENS, M. BURTON, Sec.-Treas., Collingwood, Mgr. Collingwood.

CANADIAN

LUMBERMAN'S DIRECTORY

AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA.

THE Publisher is now open to receive subscriptions for the above Directory of the lumber trades. No effort is being spared to make this publication thoroughly complete and reliable in every detail, and it is hoped that all LUMBERMAN subscribers interested will fill in the following subscription blank and return to this office at as early a date as possible.

TO THE PUBLISHER OF THE LUMBERMAN'S DIRECTORY AND INDEX TO THE PLANING MILLS AND SASH AND DOOR FACTORIES OF CANADA: 1893 Please supply.....with.....copies of the above Directory as soon as issued, for which.....agree to pay Two Dollars per copy.

All owners of saw and planing mills, wholesale and retail lumbermen, coopers, etc., are earnestly requested to furnish information asked for in following blank and mail same as soon as possible:

Card of Enquiry to Lumbermen.

Manufacturers of lumber, shingles, lath, staves, headings, etc., will please fill in this blank:

Power, style and capacity of mill: Class of manufacture: Post Office: Shipping Point:

Dealers in lumber, shingles, lath, etc., will please fill in following blank:

Wholesale or Retail: Class of stock handled: Post Office: Shipping Point:

Owners of planing mills, sash, door and blind factories, will please fill in following blank:

Power and style: Class of manufacture: Post Office: Shipping Point:

(Signed) P.O. Province.....

Address all communications to

DIRECTORY DEPARTMENT, CANADA LUMBERMAN, TORONTO, ONT.

Do You Lack Steam? We Can Help You THE CANADIAN HOLLOW BLAST GRATE

The Hollow Blast Grate supplies the furnace fire with a blast of hot air sufficient at all times to insure the rapid and perfect combustion of fuel of every sort.

It is the only appliance that steams successfully with green or wet sawdust, tanbark or other refuse and waste.

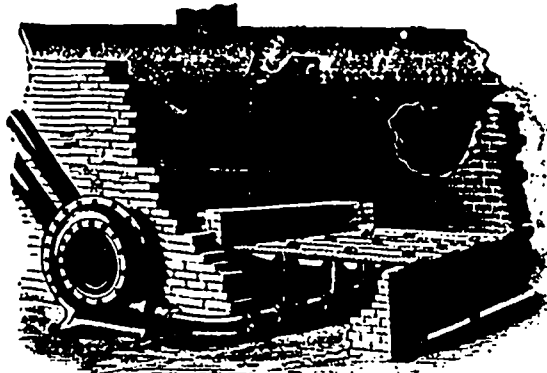
It alone has solved the problem of steaming with the fine, compact dust of the band mill.

THEY WILL NOT BURN OUT LIKE OTHER GRATES. NO SAW MILL CAN AFFORD TO BE WITHOUT. THEY WILL SAVE THEIR PRICE IN THREE MONTHS.

REGARDLESS OF THE CHARACTER OF YOUR FUEL, WE CAN GREATLY INCREASE THE VOLUME OF STEAM GENERATED IN YOUR BOILERS.

IT COSTS YOU NOTHING TO TRY THEM

WE GUARANTEE SATISFACTION OR NO SALE



Furnace Fitted with Hollow Blast Grates and Apparatus.

HUNDREDS OF TESTIMONIALS LIKE THE FOLLOWING:

"After having used your blast grates for one year we have much pleasure in saying that in our opinion they are THE INVENTION OF THE AGE. We would not be without them under any consideration." STEINHOFF & GORDON, WATLINGTON, ONT.

"They are a complete success, doing more than you claimed for them. We now keep a full supply of steam using nothing but green elm sawdust, doing better than we could with dry wood using the ordinary grate-bars." C. W. THOMAS, GORDON, ONT.

"They give us full satisfaction in every respect. We now turn out one third more stuff per day than formerly. They exceeded our expectations." M. MACKON & COATES, THURTON, ONT.

"The blast grates started all right and gave good satisfaction. We can burn most of the saw-dust and keep up steam now. I would not be without them for double the price." JOHN C. KOUK, BROWN HAVEN, ONT.

"I do not consider a saw mill complete without Blast Grates." AARON GORDON, DUNSMITH, ONT.

"I put in a set of your Grates a year ago, and they pleased me beyond expectation. I spent hundreds of dollars in various contrivances to burn elm sawdust, but without success. I now burn all my dust. I can keep up better steam pressure than I could before with dry wood." C. E. NAYLOR, ESSON, ONT.

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THE CANADIAN HOLLOW BLAST GRATE CO., ESSEX, ONT.

A. ALLAN, President

J. O. GRAVEL, Secretary-Treasurer

J. J. MCGILL, Manager

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Canadian Rubber Company

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Is the Short Line to
SAGINAW AND BAY CITY

(Centres of the vast lumber interests of Michigan)
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MILWAUKEE AND MANITOWOC, WIS.

The last two named are reached by the Company line of Steamships across Lake Michigan.
The line thus formed is a short and direct route from
NEW YORK **MONTREAL**
BUFFALO **TORONTO**

to **ST. PAUL, DULUTH** and Pacific Coast points.

Write either of the undersigned for Folders, which contain Maps, Train Schedules and much information of value to those contemplating a trip to any of the above-mentioned points.

W. H. BALDWIN, JR., General Manager. **W. F. POTTER,** Gen'l. Supt.

A. PATRIARCHE, Traffic Manager.
GENERAL OFFICES: **SAGINAW, MICH.**

Actual Results

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ONTARIO MUTUAL LIFE

on an ordinary Life Policy of \$1,000,
No. 1230 during its first 20 years,
issued for age 37:

In 1872....	Paid \$26.57	In 1882....	Paid \$13.79
1873....	" 26.57	1883....	" 13.79
1874....	" 26.57	1884....	" 13.79
1875....	" 26.57	1885....	" 13.79
1876....	" 26.57	1886....	" 13.79
1877....	" 26.57	1887....	" 13.79
1878....	" 26.57	1888....	" 13.79
1879....	" 26.57	1889....	" 13.79
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ever published

Gives measurement of a kind 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; comboid 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 1892. Ask your book-seller for it. Sent post paid for 15 cents.

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LUMBER SHIPPED TO ALL PARTS BY RAIL OR VESSEL
WHITBY, ONTARIO

Dauntless Shingle and Heading Machine

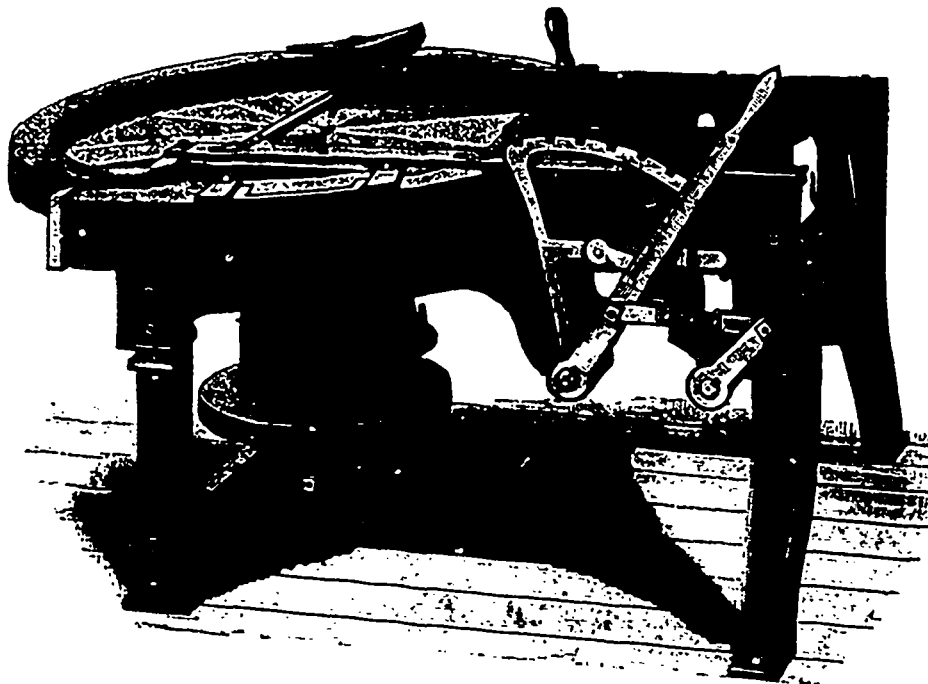
∴ WILL make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

THE FRAME

... Is of Iron throughout, very heavy and rigid, strongly bolted and braced.

THE CARRIAGE

... Is very light and strong, made of forged Cast Steel Plate, running on steel ways or tracks. Will take in a block 18 inches wide and 19 inches long, adjustable for 16-inch or 18-inch shingles.



—CAPACITY FROM 25,000 TO 50,000 PER DAY—

[COPY.]

LINDSAY, May 18th, 1893.

Mr. F. J. DRAKE, Belleville.

Dear Sir, The shingle machine we bought of you over a year ago is doing well. Last year we averaged over 32,000 shingles per day all through the season. We did not lose 15 minutes' time from all stoppages, and all repairs so far have not cost 50c. We expect to make a still higher average cut this year.

All our other machinery purchased from you is as good as the shingle machine. Your drag saw, with friction drive, cannot be beaten. We run ours 150 strokes per minute; with 6½ ft. saw it would easily make blocks for two shingle machines. The splitter, with balance wheel 4 feet diameter, weighing 1,000 lbs., is perfect and runs without the least jar. The iron frame shingle jointer with 40-inch saw is the only good jointer we ever saw. In fact, all your machinery, line shaft, pulleys, etc., give us the best satisfaction.

We expect to require another mill in a few days, and, if we do, will send you the order for complete outfit.

Truly yours,

M. DORV.

P.S.—If anyone wants to see a good working shingle mill send them to us. M. D.

F. J. DRAKE

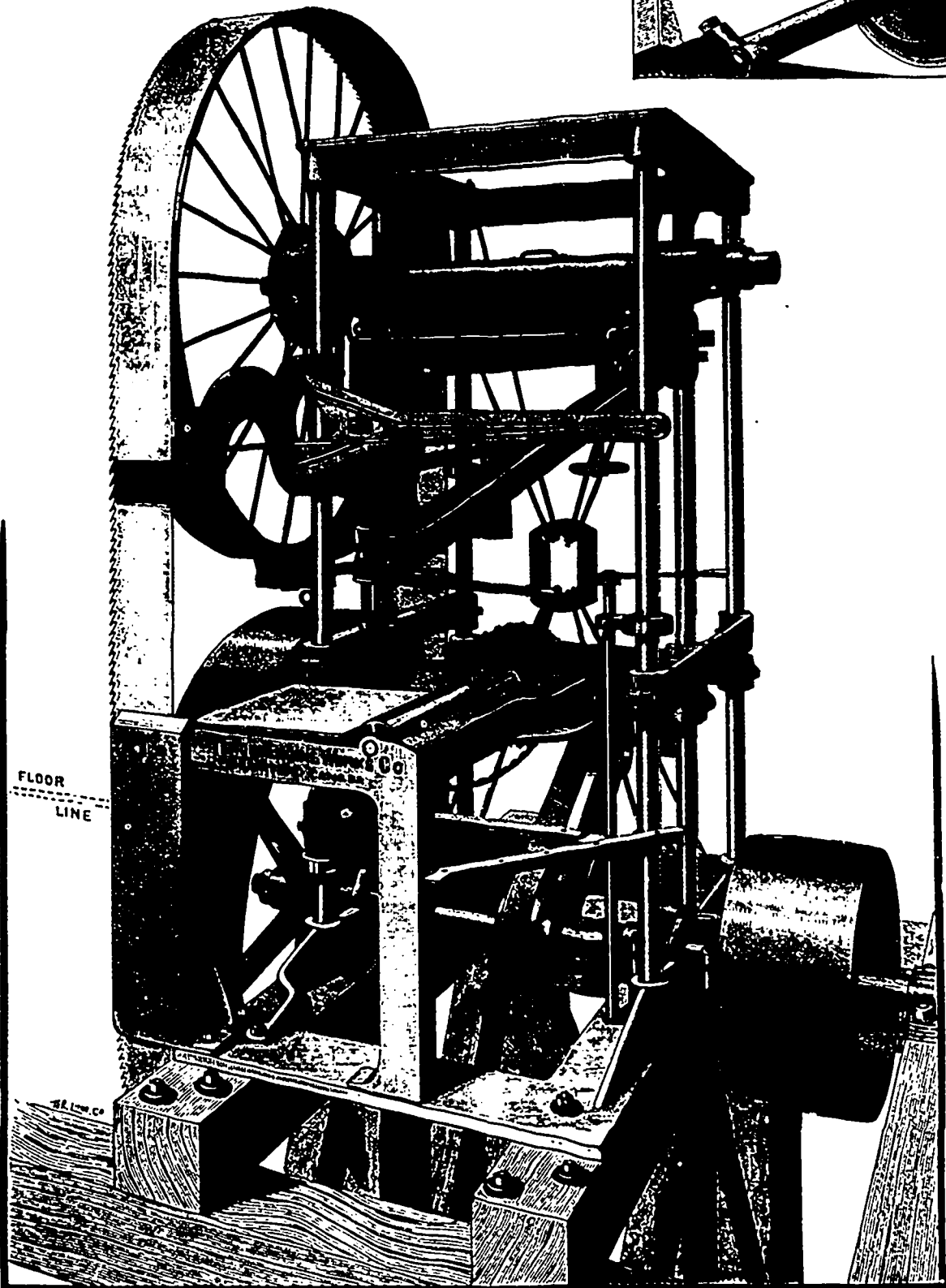
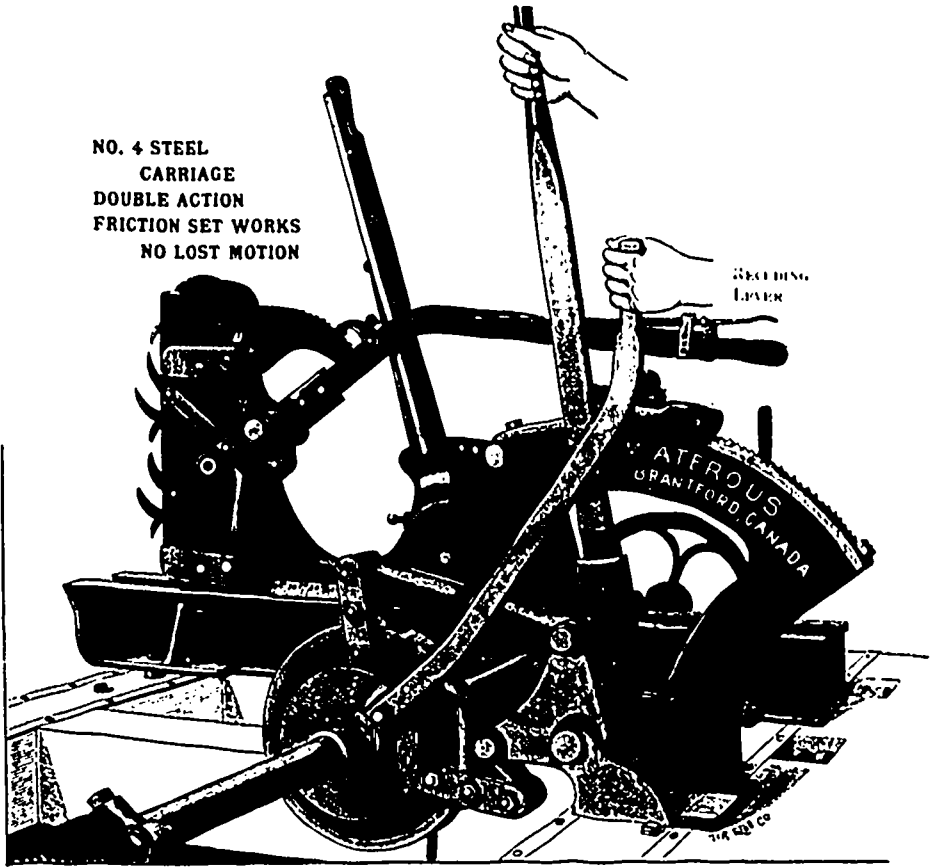
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"None Surpass ^{GHE} WATEROUS"

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- BAND SAW EXPERT - one of the best, at the service of our customers, to put saws right and teach your sawyer how to handle the saws

NO. 4 STEEL
CARRIAGE
DOUBLE ACTION
FRICTION SET WORKS
NO LOST MOTION



Start Right

ORDER

The Waterous No. 2 BAND SAWMILL

Not having already decided to put in a BAND, you may consider it too late for this season.

We can erect in your mill at any time during the summer, one of our No. 2 Band Mills, and not delay you longer than a week.

Will not a saving of 5-32nds on each cut of an ordinary circular more than pay you to make the change.

Capacity of mill is increased rather than diminished.

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NONE BETTER; AND OF

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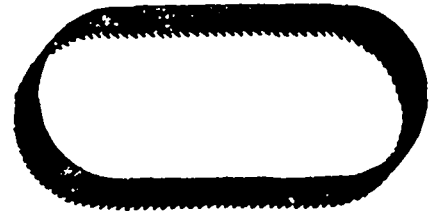
WHY BAND SAWS BREAK

SIXTEEN

REASONS,

AND HOW TO

AVOID THEM



Being instructions to filers on the care of large band saw blades used in the manufacture of lumber.

A book filled with valuable information on the care of band saws. Giving the reasons for breaking; analyzing each reason; giving instructions to dispense with the causes as laid down in each reason; and full details on filing and brazing. The proper styles of hammers to use are illustrated and described, and views of blades showing the blows of the different styles of hammers form an important part of the illustrations. Improper and unequal tension are then treated, and the manner of properly setting irregular teeth is described. In connection with the treatise is a history of the invention, manufacture and use of the saw from its origin to the present time. The work in whole makes an accumulation of information such as has never before been published.

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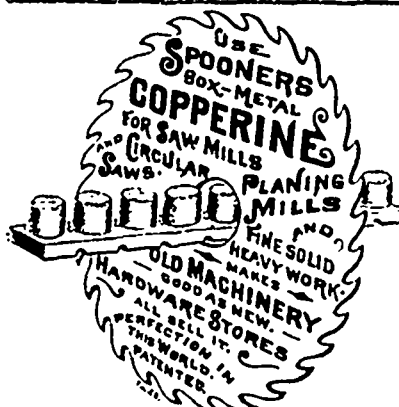
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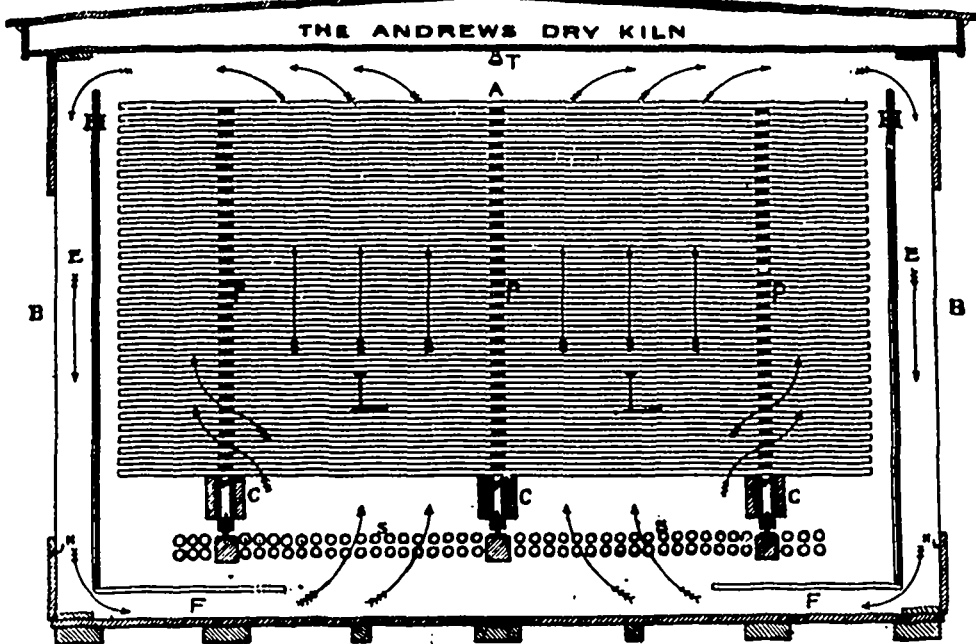
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For Lumber, Shingles, Staves, Heading, etc.



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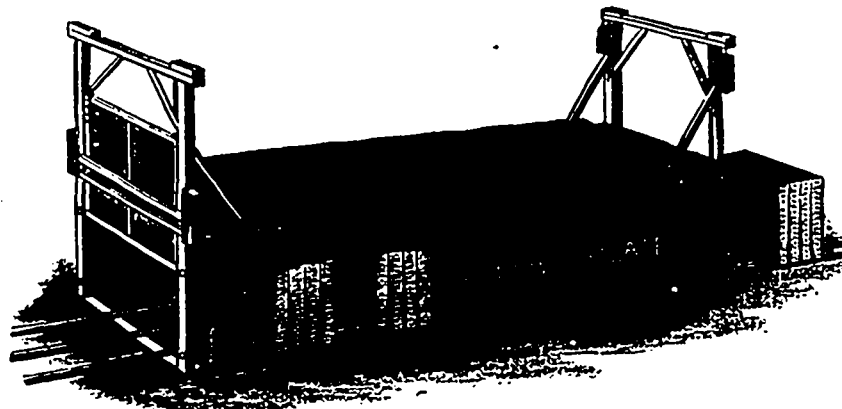
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There may be persons who do not appreciate the advantages of the artificial drying of lumber. But the shrewd men, in the manufacture of furniture and other woodwork where reputation would be sacrificed by a lack of proper material for good gluing and finishing, recognize a good system of drying as an important element of their success. High scientific authorities and thoroughly practical men are now agreed that the hot-blast and rapid-current systems ARE WASTEFUL, and that steam heat is the only safe means for artificial drying. The mode of applying steam heat most efficiently and economically is therefore now the essential point. The Andrews Dryer accomplishes this result more surely than any other known system.

This system and apparatus covered by letters patent.
 A—Drying-Room. BB—Brass Condensing-Walls. CCC—Lumber Cars. EE—Down Air-Flues. FF—Bottom Air-Flues. GG—Brass Gutters for receiving condensed moisture. PPP—Sticks between lumber. SS—Double Steam-Coils. T—Automatic Steam Fire-Extinguishers. Arrows show direction of currents of air.
 HH—Inside Walls, protecting metal from heat. LL—Lumber on cars.

- NO FAN
- NO ENGINE
- NO SMOKE
- NO CHIMNEY
- NO SPECIAL FIREMAN OR FUEL
- NO EXPENSIVE BRICKWORK
- NO RISK OF FIRE
- NO CHECKING OR WARPING
- NO CASE-HARDENING
- ... NO EQUAL ...



Outside View of the Andrews Progressive Kiln, showing Lumber placed crosswise the building, on cars.

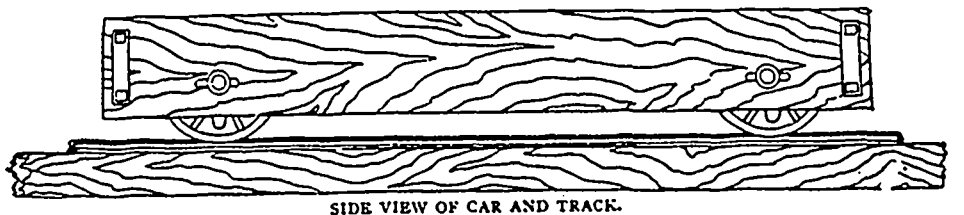
'WE PUT GREEN SPRUCE IN DRIPPING WITH WATER, AND IN EIGHTEEN HOURS IT WAS DRYER THAN LUMBER THAT HAD BEEN STUCK UP IN THE YARD ALL SUMMER.'

This is the verdict of a Quebec lumber firm, and we can give equal results every time.

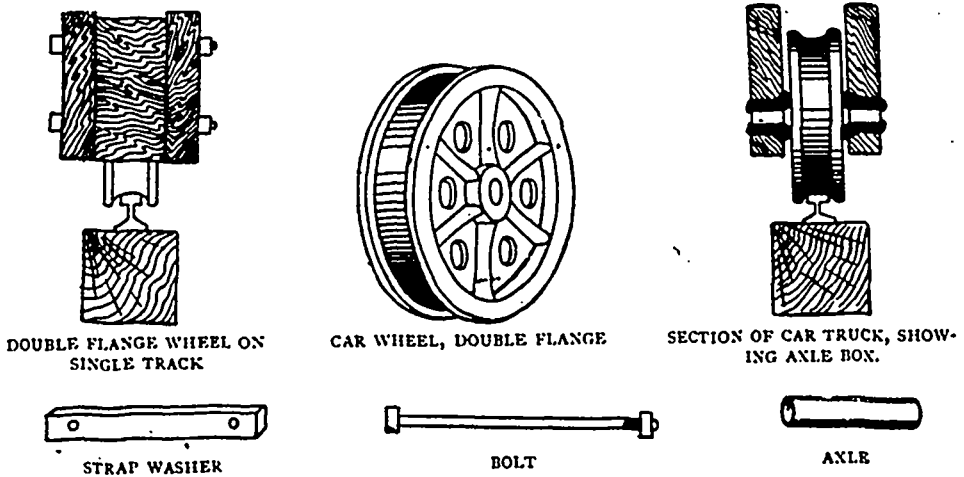
The Andrews Lumber Dryer

Has been proved to possess the following points of excellence:

- 1st. That its drying is rapid and perfect.
- 2nd. That external and internal checking and discoloration are entirely avoided by this method.
- 3rd. That the drying is done by a CONTINUOUS system and the temperature of the kiln is under absolute control at all times.
- 4th. That our Dryer is free from the varying air currents (always wasteful) incident to all fan and open-draft kilns.
- 5th. That our drying is done by the slow continuous movement of a large body of slightly-moistened air.
- 6th. That our condensing surface is so very large as to be adequate to precipitating the moisture of the saturated air with the least amount of movement.
- 7th. That our piping is tested by high pressure and every outfit is fully guaranteed.
- 8th. That by our improved system of drainage the freezing of pipes becomes impossible.



SIDE VIEW OF CAR AND TRACK.



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DOMINION DRY KILN COMPANY

CANADA LIFE BUILDING :: :: TORONTO, ONT.

R. H. SMITH CO., LIMITED

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Sole Manufacturers



ESTABLISHED 1855

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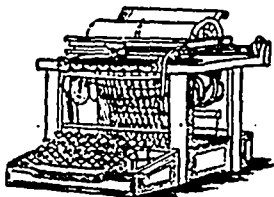
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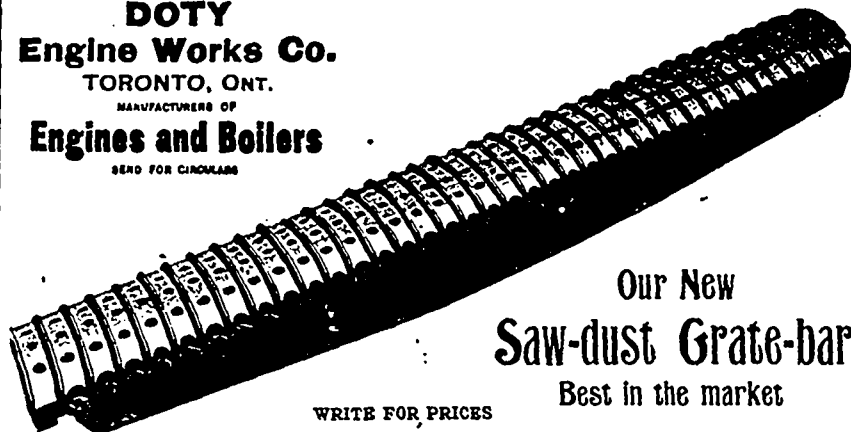
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