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CANADA LUMBERMAN

WOOD WORKERS' MANUFACTURERS AND MILLERS' GAZETTE

VOLUME XIII }
NUMBER 4 }

TORONTO, ONT., APRIL, 1892

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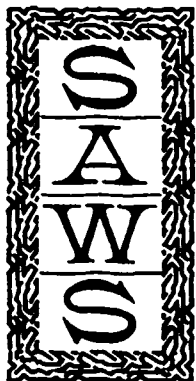
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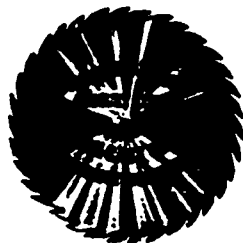
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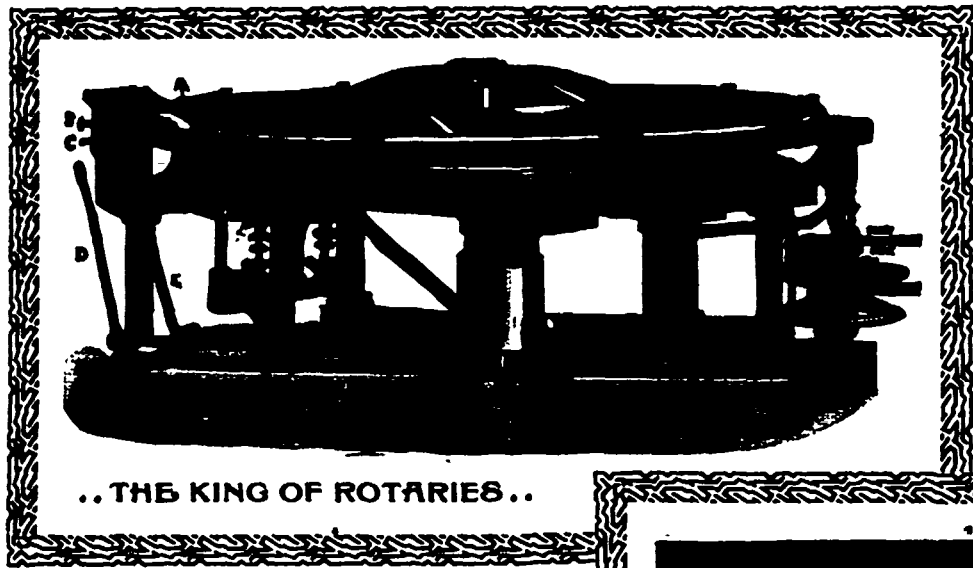


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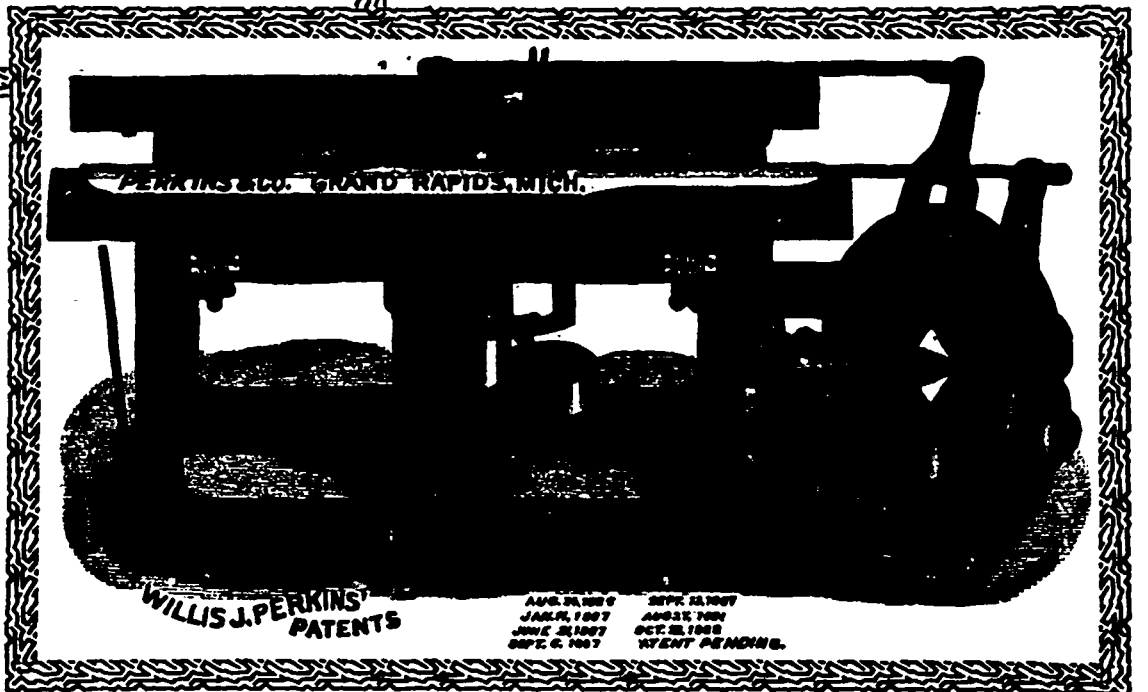


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THE CANADA LUMBERMAN

VOLUME XIII.
NUMBER 4.

TORONTO, ONT., APRIL, 1892

TERMS, \$1.00 PER YEAR
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CHARACTER SKETCH.

MR. E. B. EDDY.

"If I have done the public any service it is due to nothing but industry and patient thought." - Newton.

WHERE in this broad Dominion is the name of E. B. Eddy, of Hull, Que., not known? Influenced by the law of association, who strikes a match, for whatever purpose, without thinking of this greatest of match-makers?

E. B. Eddy comes of historic Mayflower stock, and was born in Bristol, Vt., in 1827, being a direct descendant of that doughty warrior but luckless wooer, Miles Standish. He came to Canada in 1851 and settled in Hull, Que., where, in 1854, he commenced the making of matches. The contrast between the small beginnings of those days and the achievements of the present—by actual calculation the product of his match factory is 27,600,000 matches per day

is an illustration of the tremendous energy and push of the man during these years; for it has not been all plain sailing with Mr. Eddy. He has had difficulties to overcome that would have downed ten ordinary men, but his unconquerable energy has enabled him to climb successfully over each obstacle as it has met him in his path.

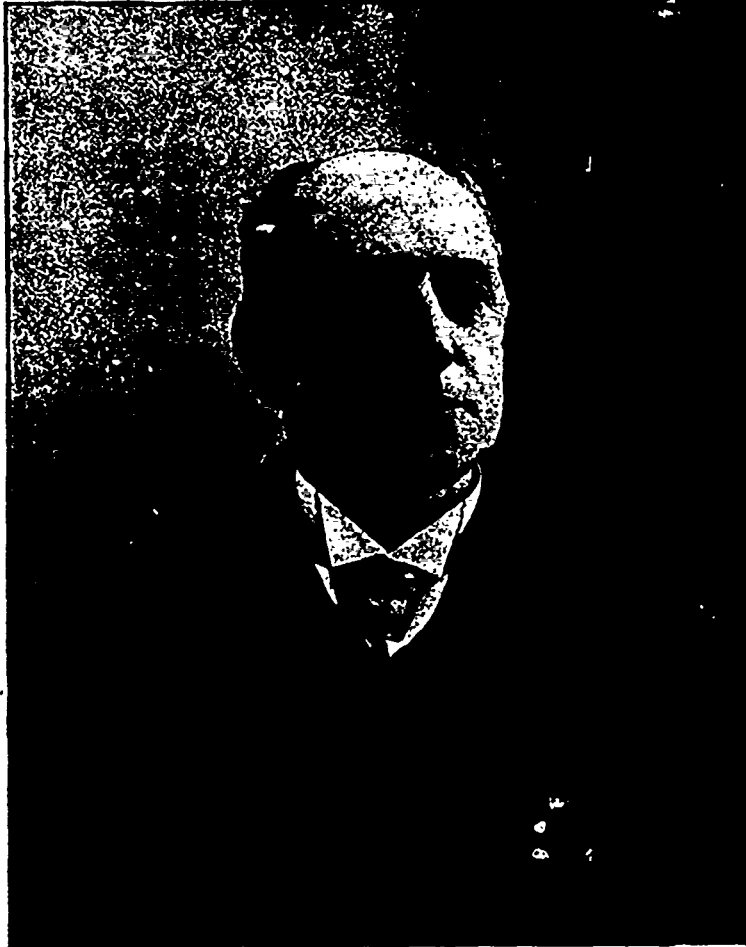
The fire-fiend did not spare Mr. Eddy. In 1882 his large works were destroyed by the devouring element. He was in Quebec at the time, and his laconic, but intensely practical reply to the telegraph message sent him, whilst the labor of years was being so ruthlessly wiped out, is characteristic of the man. These were his words: "Put out the fire, clear up debris, prepare to build. I'll be home to-morrow."

In 1856 the manufacture of woodenware in the shape of pails, tubs and washboards was added to match-making. Later on he acquired large tracts of land and entered extensively into lumbering, erecting huge sawmills, planing mills and door and sash factories.

In 1886 Mr. Eddy's vast business interests were organized and consolidated into the E. B. Eddy Co., (Ltd.), working under charter secured from the Dominion Government. Since that date the concern has withdrawn from the planing mill business, and gone extensively into the manufacture of paper and the operation of a sulphite fibre mill, becoming large consumers of spruce and pulpwood. How closely Mr. Eddy's interests are identified with the timber interests of this country is shown in the fact that about 15,000,000 feet of lumber are sawn each year, all of which is used by the company in their various factories. About 15,000 cords of pulp is consumed annually in their chemical and wood pulp mills; thirteen tons of sulphite fibre, sixteen tons of wood pulp, fifteen tons of manilla, tissue, wrapping and newspapers, and ten tons of wood board are made daily, together with a daily average of from 260 to 265 dozen wooden pails and tubs; fifty dozen fibre ware pails, tubs, etc. and 27,600,000 matches are turned out each day (Sunday excepted) the year round by the E. B. Eddy Company. The pay roll runs about \$30,000 per month.

The following story of Mr. Eddy, told by his familiar friends, illustrates, without any playing on the word, the matchless business resources of this commercial king. Some years ago the match manufacturers of the United States resolved to secure a prohibitory duty to exclude Mr. Eddy from a modest share in the match market of

that country. He protested, but in vain. The duty was about to be put on when he appeared at a convention of the manufacturers, and, after exhausting every plea against the proposed duty they were about to rivet on by a formal demand, he threatened to place his matches, beautifully labelled, in every city, town and hamlet between Canada and the Gulf of Mexico. He did this quietly. They laughed. The duty promptly went on. Mr. Eddy returned home, re-crossed to Ogdensburg and at once secured suitable buildings for a large factory. This he equipped at once, and in a week or ten days he brought over foremen and scores of skilled hands from Hull, and engaged fresh hands on the spot, and began operations. Within a month an enormous quantity of matches was produced and pushed into the market all over the country. The American manufacturers became alarmed; the threat seemed in process of quick realization. They called another meeting; offered Mr. Eddy



MR. E. B. EDDY.

an immense sum to abandon his Ogdensburg factory, and besides paid the entire expense incurred in establishing it, and even the return fares of the employees brought from Hull.

Of Mr. Eddy personally little need be said; he is well known to the people of this country. Busy man that he is, he is ever the gentleman, and genial and courteous to all visitors. His acts of enterprise as a citizen bear their own evidence in the town of Hull, which owes its rapid and continued growth in an incalculable degree to Mr. Eddy's efforts. No more beneficent citizen is found in any community, as the people of Hull and its institutions, public and private, testify. He was married in 1846, before leaving Bristol, to a native of the same town, a lady who can claim the distinction of being the grand-daughter, on her father's side, of John Arnold, of Frankfort-on-the-Main, Germany. It has well been said: One Canada, one Eddy.

THE STRENGTH OF WOOD GREATER THAN STEEL.

A STATEMENT recently appeared in a contemporary giving the results of a comparative test of hardwood with steel, and showing that the advantage of strength in proportion to weight was with the wood. This fact seems to have been unobserved until recently, and has occasioned much surprise among woodworkers. But it is the fact that hardwood is stronger than steel in resistance to breaking weight. Some further advantages in favor of wood are thus stated by an exchange when an all-steel machine is brought into sharp contact with some unyielding obstacle, its frame is liable to spring, and when once sprung its usefulness is at an end. It cannot be strengthened without resort to the shop for repairs. If a wood frame it is not thus affected. If bent under a violent strain, it at once springs back to its original shape. A piece of steel one foot long and a half inch square weighs double as much as a piece of seasoned ash one foot long, 1 3/8 inches square. In other words, the steel in proportion to bulk is 15 1/2 times as heavy as the wood. A steel frame of a machine which is one-fifteenth as large as a wood frame weighs exactly the same as the wood. But even with this difference in size, the wood has four times the strength. These are problems that any one can solve.

On the contrary, recent evidence as to the use of steel in place of wood for railway ties, which have been very reluctantly adopted, has proven that steel is the most economical. In Burmah steel ties, after having undergone a careful test on different parts of the line, are now displacing the teak railroad ties hitherto used on the open line of the state railway. Teak so far has been found the best timber yet used for this purpose, and has been found to last as long as ten years; but the use of steel ties economizes the expense of spikes, and is reported to last from 40 to 50 years. The low price now ruling has been a great inducement not only of substituting steel ties, but also a large quantity of steel rail is now being used in this province. With the growth of this idea, which must result from the rapid depletion of our hardwood forests, no doubt a method of preserving metal ties from rust will still further lengthen the period in which it may be used and make it still cheaper as a permanent sleeper for railway tracks.

A GOOD SUGGESTION TO ADOPT.

EVERY mechanic should have a library of his own, no matter how small. A library, even if it only consists of two books, is of value. Once the habit is formed of purchasing books, it is surprising how soon a creditable collection of books will be secured, and what a benefit they will be to the owner. The mechanic unaccustomed to the use of books has no idea of the benefit to be derived from them. He does not know that the use of books will fit him for a better position, and enable him to earn better wages and do better work.

It is a good plan to set aside a certain sum each week or month to be applied to the purchase of books. Here the mistake of buying the wrong books must not be made, or the money will be wasted. Some men, once in the habit of acquiring a library, buy books merely because they are books, and will help to fill the shelves and make a show. Avoid all such nonsense. Buy books as tools are bought, because they are needed, and they will be a benefit to their purchaser.

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VIEWS AND INTERVIEWS.

Uses of
Waste Products.

In a way we live in an age noted for its extravagance. Yet no past age has given more attention to the intelligent utilization of what are considered the waste products of the earth. Doubtless the experiments sometimes made are chimerical, but it is only by experimenting we can learn what is what. A use is said to have been found for the sage brush of the Western plains, heretofore supposed to be one of the least serviceable things that grow. Its monotonous gray makes the depressing aspect of the desert worse than nothing. But an Idaho man thinks he has found what it is good for. By a lime process—boiling the branches—he gets a pulp which he says is equal to the best made from wood, and he believes he can sell the paper for four and a-half cents a pound at a fair profit.

Mill Made from
A Battleship.

In the year 1812, as readers of history know, a naval duel occurred between the American man-of-war Chesapeake, commanded by Captain Laurence, and the British frigate Shannon, commanded by Captain Broke. The battle resulted disastrously to the American vessel, its commander being killed, and the Chesapeake was carried off by the victors. The fate of the Chesapeake was curious. She is in existence to-day, as sound and staunch as the day she was launched, but is used in the inglorious capacity of a flour mill, and is making lots of money for a hearty Hampshire miller, in the little parish of Wickham, England. After her capture by Sir Philip B. V. Broke she was taken to England in 1814, and in 1820 her timber was sold to John Prior, miller, of Wickham, Hants. Mr. Prior pulled down his own mill at Wickham, and erected a new one from the Chesapeake timbers, which he found admirably adapted for the purpose. The deck beams were thirty-two feet long and eighteen inches square, and were placed unaltered horizontally in the mill. The purlins of the deck were about twelve feet long, and served without alteration for joists. Many of these timbers yet have the marks of the Shannon's grapeshot, and in some places the shot are still to be seen deeply embedded in the pitch pine.

Not All
Alike.

"I have lost all interest in advancing the work of this shop and my sole ambition is to put in ten hours per day and draw my pay Saturday night. I am entirely done with all ideas of trying to advance the interests of my employers by brain labor or improved methods of doing work. The firm has several of my devices which save it many hundred dollars per year. I have received several kicks, but no thanks, in connection with these matters; therefore, I am done with such business." This is the way an intelligent mechanic recently expressed himself. He was a good workman and a practical inventor. His effort had been to throw enthusiasm into his work, but it had met with no appreciation, and he had become soured. Forever after that man is likely to have a poor opinion of the employer of labor. Judging others by his own experience, he will consider all as simply task-masters, oppressors of the workingman, getting out of him everything that is possible, giving in return as little as he can, not even supplementing the pittance that may be paid by a word of kindness. Yet all employers are not alike. There are employers possessed with a generous supply of the milk of human kindness, whose thoughts are constantly working in lines that will help to make life more worth living to those who, by their enthusiasm, intelligence and labor, are no inconsequential factors in creating the fortune the employer is piling up. A broad sympathy, and a killing of the narrowness of view that too often takes hold of employer and employee, is what is wanted the world over between man and man. It pays—has paid where ever tried.

More About
The Sawdust Dump.

To what funny uses sawdust is put. The butcher uses it to give cleanliness to his shop floor. The fire has consumed much that has come from the sawmill. Senator Snowball has pictured to us the "sawdust dump" right under Parliament House, which adds so largely to the beauty of the Ottawa river. A few months ago we told in these columns of chemical experiments that were

being made, with the object of utilizing it in bread making. Last month we told about sawdust for building purposes. Some one with a mechanical turn now proposes to employ it as a filler in preparing house finish and furniture. The dust is selected to match the wood to be finished. If it be pine, pine dust is used, if oak chestnut or butternut, the dust of either may be used indiscriminately, if black walnut, then walnut dust, etc. It is first subjected to a baking process, by which all moisture is evaporated. The baking should be carried to a point as closely as possible to carbonizing without changing the color. It should then be put into a mortar dry and be subjected to continuous trituration or pounding until reduced to a flour. Much of the labor of trituration may be saved by running the dust through an ordinary portable farm grist mill, or even through a good coffee mill. The fine powder is applied precisely as is any other powdered filler, and it is said to possess this advantage over mineral or metallic fillers, that if baked just enough to kill the fibre, and used with pure, boiled linseed oil, it will not shrink when dry, and fall out, as will many of the mineral fillers. It is also claimed that where wood is darkened before filling, as in the treatment for antique effects, the filling can be darkened to correspond, either by submitting it to an alkali or acid bath of mild strength, before baking, or, much cheaper and easier, by carrying the baking process to a partially carbonizing degree. It is further claimed that ground with oil, non-resinous dust can be made into putty far superior to any other, as it will not shrink and needs no coloring, which renders it very desirable for painters' as well as glaziers' use. With success in this direction, there is reason to believe the dust can be utilized in mixing paints where wood tints are desired, or even for all the natural tints, by the addition of coloring matter. There is yet much of experiment and speculation as to the utilization of the waste material of the sawmill, and human ingenuity must be greatly at fault if it does not yet devise means to turn the bulk of it into articles of commerce.

Concerning
Mahogany.

In the March LUMBERMAN a brief account was given of the various woods of Honduras, one of which is Mahogany. In our day we think of mahogany most probably in connection with the manufacture of the finest grades of pianos. In England this wood is largely used for this purpose, and the class of pianos made from it are in unusual demand all over Europe. In its time mahogany has been used for all classes of furniture, from the common tables of village inns to the splendid cabinets of a regal palace. But the village inn of this country certainly displays its extravagance in other directions rather than mahogany tables. In "The Library of Entertaining Knowledge," published in London, Eng., in 1829 by Charles Knight (in their day Knight's popular volumes were widely read) some interesting facts are given concerning mahogany. The introduction into notice of mahogany appears to have been slow; the first mention of it was that it was used in the repair of Sir Walter Raleigh's ships at Trinidad in 1597. "Its finely variegated tints were admired, but in that age the dream of El Dorado caused matters of more value to be neglected. The first that was brought to England," says the writer, "was about the beginning of last century, a few planks having been sent to Dr. Gibbons, of London, by a brother, who was a West Indian captain. The Doctor was erecting a house on King street, Convent Garden, and gave the planks to the workmen, who rejected it as being too hard. The Doctor's cabinet-maker, named Wollaston, was employed to make a cabinet box of it, and as he was sawing up the plank he also complained of the hardness of the timber. But when the cabinet-box was finished it outshone all the Doctor's other furniture, and became an object of curiosity and exhibition. The wood was then taken into favor. Dr. Gibbons had a bureau made of it, and the Duchess of Buckingham another; and the despised mahogany now became a prominent article of luxury, and at the same time raised the fortunes of the cabinet-maker by whom it had been at first so little regarded." A single log of mahogany imported at Liverpool some years after weighed nearly seven tons, and was first sold for £378, resold for £525, and would, the account goes

on to say, have been worth £1,000 had the dealers been certain of its quality. The London Music Trades Journal, writing of the value of mahogany for pianofortes, says: "Spanish mahogany is decidedly the most beautiful, but occasionally, yet not very often, the Honduras wood is of singular brilliancy, and it is then eagerly sought for to be employed in the most expensive cabinet-work. A short time ago Messrs. Broadwood, who have long been distinguished as makers of pianofortes, gave the enormous sum of £3,000 for three logs of mahogany. These logs, the produce of one tree, were each about fifteen feet long and thirty-eight inches wide. They were cut into veneers of eight to an inch. The wood, of which we have seen a specimen, was peculiarly beautiful, capable of receiving the highest polish, and when polished, reflecting the light in the most varied manner, like the surface of a crystal, and from the many forms of the fibers offering a different figure in whatever direction it was viewed."

The Moloch
Of Modern Business.

Are we living too fast? The question is not new. But we go on living; have we settled the problem? Hardly, unless everyday observation more than belies the record. The LUMBERMAN is not given to moralizing. The aim of each paragraph written is to get at something thoroughly practical, but the observation of a neighbouring commercial journal "catches us" as having a very practical bearing, while possessing a strong moral coloring. "It was once the custom," says this representative of iron and steel, "to offer sacrifices to Moloch. The offerings to this gentleman were not of jewelry, vegetables or cash, but of human lives, served up on a hot coal or in a bloody basket. The altar of this man-eater was a shamle, in which the patriarch and the babe, the rich and the poor, the wise man and the fool, went into ashes and mincemeat without fear or a coroner's jury. We are fortunately living in better times. The butcher's shop is closed, and Moloch is out of business. The modern man is no longer served on a gridiron or a plate to a cannibal god. We are, however, doing some occasional whittling on the old block. In a refined and conventional fashion we are offering sacrifices of time, health and mentality to a modern Moloch. This last and improved edition of the man-eater is overwork. We live in a rapid age. The clock is too slow and the days too short. We spread a mile of life on a yard of time, and by burning the business candle at both ends the light goes out in the middle instead of at the bottom. Business is a race-horse seldom in the paddock, but mostly on the track. Everything moves under the spur and whip. In the totals of progress we have forgotten the invoices of human life. The commercial structure is immense and magnificent. We spread printers' ink in statistical Te Deums and are patriotically proud of our national supremacy. But under the superstructure is a catacomb and on the back page of business statistics an extended list of lunatics and invalids and a growing pile of undertakers' bills. Attention has been called to this fact by physicians and publicists, but the underground railway to asylums and cemeteries is still running on time and paying dividends. In the modern conditions of business, it seems to be necessary for some men to be sacrificed for the rest. They are pivotal in their different vocations. When the king-pin is missing the wagon stops. Such men labor beyond the limits of reason and the endurance of nature. Life is a file of invoices. Rest is simply an anxious man sandwiched for a few hours between two sheets, with broken nerves, delinquent health and spells of sleeplessness and nightmare. Artificial remedies are resorted to in order to postpone the usual catastrophe. Opiates, capsules and stimulants are used to stop the cracks in a leaky ship, with the usual finale, in a heavy cargo and a dead captain. There may be an excuse but there is no disguise for this fact. It is deplorably common. Overwork is becoming a public enemy. When business men are conscious of its encroachments on their vitality, they should wisely call a halt, not forgetting that even in this age of cupidity a bank account and a big business is no offset to premature exhaustion, a soft brain and a short life."

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AROUND THE CHAUDIERE.

BY MOSES OATES.

FROM an interesting sketch of the Chaudiere, published in a recent issue of the Empire, written over the well-known pseudonym of "Moses Oates," we reprint the following excerpts, which more particularly describe the lumber side of this great lumber district:—

"The Parliament buildings and the Chaudiere, with the industries clustered around it possess, however, more interest than anything else in the environments of the twin cities of Ottawa and Hull. Comparatively few Canadians have visited Ottawa, but the architecture of the buildings has been made familiar to everyone through engravings. The beauty of these stately piles, with their exquisitely graceful towers, cannot be appreciated unless they are actually seen. Engravings can scarcely hint the rich, warm, restful coloring which here, more perhaps than in any public structures on this continent, give the architecture an indescribable and surpassing charm.

The Chaudiere is a more magnificent and more interesting spectacle. It almost defies description and cannot well be photographed; so it does not receive the attention from the public at a distance that it merits. In stupendous turmoil it surpasses Niagara. It is full of sentiment, and yet is one of the most practical bread-and-butter affairs in existence. Its height falls short of the expectation of a visitor. Though the total descent of the river is sixty feet, the fall proper is only about forty feet high, and scarcely seems half so much. But when you are in Ottawa you cannot forget the cataract. The roar is everywhere. It penetrates the hotels. A stranger—I have several times mistaken it for the roar of rain on the roof. Its sound is a multitudinous murmur. It enters the halls of Parliament at times; on the square it is as the sound of a Niagara. But when you look over the cliff westward up to the broad city of lumber that stretches, with its slides and water avenues, across the valley from Ottawa to Hull, you see no adequate cause. A latticed bridge spans a narrow chasm hemmed in by mills. Behind it, above it and below is a gleaming roll of mist from which emerges on the dark waters a long, tossing undulating serpent of foam that winds slowly down the widening river, passes below your eyes, and miles away eastward till lost where the river curves out of sight. The river view towards and beyond the falls is beautiful, but no falls are visible; only a glinting as of bright bayonets flashing in the sun amid the smoke of battle.

ON THE LUMBER FLATS.

To understand the Chaudiere you must go there. Winter has its peculiar charms for this excursion, but summer, on the whole, is better. A horse-car line, winding deviously along the streets on the bluff, gives you glimpses now and then of the lumber flats below. At last you descend into the strange wooden city of the Chaudiere, the largest lumbering centre in the world. Interest grows with every yard of your progress. Lumber, lumber everywhere; countless piles on piles, that shut out the vision and fill your nostrils with the balm of the piney woods. Railway tracks cross your path and wind in amongst the mills. The famous slides, the running of which is one of the most coveted and thrilling experiences life conveniently affords, pass under you and away. Lanes of water run here and there. Where they open on your way you catch momentary vistas of mills and wooden causeways and bridges, of terraces and gorges of water and roaring cascades that leap or tumble from glassy basins into foaming depths, whose multiplicity and distribution are confusing. Your ears are stunned by the sounding waters. Your eyes are delighted with phalanxes of crystal spouts, breaking into foam, and sending up from shady depths almost impalpable clouds of spray, against which rainbows bridge the mysterious waterways, and veil in glory the dim interiors of the wide-mouthed mills where men move and saw rip their stately, deliberate way, as in a pantomime. Now and then, as your car rattles on, you get a glimpse in the sombre east, above the lumber piles and rainbows and noise and turmoil, of the calm and beautiful towers and facades on Parliament hill, while up water lanes leading into the glowing west you see booms and logs, and beyond them the lake-like expanse of twinkling river, stretching towards the wilderness.

The car stops near the bridge, and opposite that colossal congregation of belts and saws, pillars and beams and shafts, known as Booth's sawmill. It is, since its recent enlargement, the greatest lumber mill in the world, and has a capacity of 100,000,000 feet per annum. The car stops and trembles, and as you leave it and walk on, the quivering is that of a gentle earthquake. The ground seems solid enough, but you doubt whether or not you are on *terri firma*; whether the quaking is due to the buried Ottawa, tossing and tumbling along subterranean ways, or to the mighty impact of the falls near by. You step upon the suspension bridge, and suddenly, past the angle of the great mill, with a roar at once augmented a hundred-fold, the Chaudiere, enwrapped in shining mist, bursts upon you.

A SCENE OF STUPENDOUS TUMULT.

As you lean over the railing your first thought is scarcely of the falls. Their height is insignificant; they are much overtopped by the by no means lofty structure of plank and beam that pushes out into the mist and surges of the basin. But you do not think of that for the moment. Your senses are filled with the stupendous tumult and slow and awful strength of the surging floods pent and struggling through the chasm below. The sound of many waters is in your ears, the thud and thunder of the fall of mighty floods; the hiss and swish and roar of a thousand voices of the cataract calling from the seething chasm, from the cascades pouring over timbers and rocks on either side, and from the rolling spouting clouds of spray, through which in front a myriad blades of light flash dazzling from the face of the falls.

Then you have leisure and disposition to enjoy the scene in detail and appreciate the very varied beauty which, in a measure, unequalled in any noted cataract elsewhere appeals to every mood and change of the soul. Through the spray above the falls is seen the broad surface of the Ottawa, twinkling against the green of the distant shore and spanned far out to the islets in mid-stream by the silver gleam which marks the first roll of the cataract. Then the great river, here a full mile in width, suddenly converges within a quarter of a mile, and almost at right angles, and after yielding minor rivers to the lumber flats, gathers for its plunge into the "cauldron" of the Chaudiere.

On the right, or Ottawa side, the river comes in deep, smooth, stately flow; on the left the shallower waters, curving in by the Quebec shore over ledges of limestone far apart, flow down a succession of long lines of little glistening falls. In mid-stream the deep river becomes more and more disturbed as it nears its plunge. It breaks and tosses now and then into feathery foam, and here and there swells into rounds and ridges, or sinks into permanent hollows, where the gathering waters pour in from either side and go raging down the rock-rifts worn up stream from the edge of the gorge. Then comes the mighty plunge.

A UNIQUE CATARACT.

If the spectacle of a great river, ranking with the largest in Europe, suddenly contracting from the width of a mile to force its furious way through a rock-bound passage not 200 feet across, has a few parallels, in irregularity of outline the falls of the Chaudiere are absolutely unique amongst great cataracts. The river flows from west to east; but the waters fall from every direction. A deep crack or gorge, 500 feet in length, extends north and south athwart the stream, but not the whole way across. A second gorge runs eastward from the south end of this crack with the direction of the river and passes under the bridge. Above the bridge a third ravine enters the second from the north. The three gorges form the edges of a somewhat quadrangular plateau of rock extending out from the Quebec shore, and on a level with the riverbed just above the main falls. Over this plateau the river flows and spreads, and falls from three faces, west, south and east into the chasms. As the mid-waters of the river flow directly over into the great transverse crack, and the waters converging from the left pass the main fall by and pour into the gorge from the south, the Chaudiere has five sides. In full flood the cataract has a continuous angular front of nearly 2,000 feet. It is this extraordinary peculiarity of outline which gives to these falls their unrivalled magnificence of tumult and makes their name Chaudiere, or "Cauldron"—so peculiarly appropriate.

Nor is the Chaudiere lacking in historic interest. More than two and a-half centuries ago Champlain camped here. The cauldron was familiar to nearly every adventurous spirit of the ancient regime, for this was the gateway to the vast and mysterious west before a white man had seen Lake Erie, or heard the roar of Niagara Falls. Here the great canoe fleets of the Hurons paused on their way to and from the little trading post at Montreal, and through the dark woods fringing the chasm poured hundreds of dusky warriors in the arduous toil of the portage. Here the bloody Iroquois, boldly penetrating from their southern home, lay in wait, and sometimes their dreaded warwhoop mingled with the roar of the cataract.

All is changed: the last vestiges of the primeval forest have long since disappeared. But the Chaudiere is more a place of portage than ever. Steamers puff their strenuous way into the lower surges of the cataract. From hundreds of miles above the forests come down and emerge on the broad river below in lumber destined for the markets of two continents. A great canal, a "seaway" runs from the bridge to Hull and overlooks the terraced cascades of the ravine. It is thronged from morning till night with thousands of busy feet, for at its further end clusters one of the marvels of the Chaudiere, the colossal factories of Eddy, of Hull, from whose industry within a generation a whole city has sprung into being."

CAN SMOKE BE BURNED?

AS a matter of fact smoke, at the temperature necessary to ignite carbon, may be consumed, but smoke once created and carried by excess of draught from the hottest part of the furnace onward to the smokestack, may not be consumed. It requires a temperature of 800 to ignite carbon. The answer to the question must be with a view to practical value, and to compress the matter necessary to be understood. For answer we will assume a fresh fire be made and fed with bituminous coal. A large volume of smoke is seen to be given off and hurried by the draught to the smokestack.

Of what is that smoke composed? There is, firstly, the water that is in the coal converted into vapor, and that vapor is the carrier of the matter that we call smoke; that smoke is composed of hydrocarbons, and the more solid matter that is chiefly carbon. Now, bear in mind that the smoke is of the coal a part; yet one part is consumed and the other part escapes as soot and smoke. Why, burning is an act of contact, intermixture, ignition and union, by which the hydrocarbons and the solid carbon in the fuel enter into union with the oxygen derived by the draught from the outer air; that union, to be perfect, must be in scientifically determined proportions; if the air supplied be insufficient, then the union will be limited and the volatile constituents of the coal will pass away as soot; if the air be in excess the temperature will be lowered and the solid particles of carbon from the disintegrating coal will be carried by the draught from the fire-bed unconsumed to the smokestack as smoke.

If the requisite oxygen was supplied in contact with the ignited and igniting coals, then the smoke would be consumed, for that smoke is only comminuted parts of the coal resulting from disintegration of the greater parts, the disintegration caused by the heat resulting from the union of the oxygen supplied and as much of the combustible particles of the coal in a gaseous state as that oxygen can take up.

Now, as combustion is an act of union, there will be no smoke from that which enters into union, and if there be a sufficiency of oxygen to enter into union with all the gases of the furnace, then by their intermixture there will be union, creating sufficiency of temperature for ignition of and combustion of the solid carbon particles, as well as of the volatile constituents; and no smoke.

The answer, therefore, to the question: "Can smoke be burned?" is yes, with the exact required proportion of oxygen in contact with, and intermixing with, the gases in the furnace; without the exact required proportions, and under the ordinary usual conditions of firing, with or without the hundreds of schemes, many of them revived fallacies for smoke-burning, it is not possible to burn smoke in the furnace; that is to say, it is not possible to burn smoke in the furnace except and to the extent of the portion that has entered into union with the oxygen provided by the draught from the atmosphere.



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—BY—

ARTHUR G. MORTIMER

OFFICE.

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

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

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

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for securing publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 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.

ONTARIO CROWN LANDS.

THE annual report of the Commissioner of Crown Lands for this province is a document of special interest to lumbermen. Notwithstanding the unpopularity of the average blue book we do not know why every citizen should not be deeply interested in this particular volume. The proud position of Ontario to-day is due in no small measure to the wealth of her forest products. What we shall yet be will be dependent, in part at least, on the future management of these products. There would appear to be no valid reason for dissatisfaction with the management in the past. In matters of detail, there are those who will criticise this management. We suppose mistakes have been made; we do not know that infallibility is claimed by the Commissioner; but broadly, the generally successful and satisfactory results to the province at large is the best comment on the generally wise administration of our wood and forest interests by Mr. Hardy and his associates. We will all trust that this record may be sustained throughout the years to come. It will not be the case, however, without more skillful management each year than in any of the years preceding. Our timber products become less with each season's cutting. As shown in the Minister's report, to which we refer more in detail below, losses are continually experienced from the ravages of the bush fire. In a sentence, our woods and forests are not inexhaustible. When we had plenty we could perhaps afford to be prodigal; to quote Poor Richard: "When the well is dry we know the worth of water." A timber famine is not yet imminent in Ontario, but the long view of public affairs is the wise view, and its application to our forest wealth will mean a continuation to the province of the prosperity it has so amply enjoyed in the past.

The past year: The Commissioner inform us in the report laid before the House at the present session that the total collections from woods and forests amounted to \$1,022,619.31, which includes \$172,521.22 on account of bonuses, leaving the revenue from timber dues, ground rent, etc., \$850,068.09.

Little or no improvement is said to have taken place in the "square timber trade during the year, but the large stocks held in the makers' hands and at ports of shipment have materially decreased, and as only a limited quantity of timber is being taken out this winter there is good prospect of the square timber trade being soon in a satisfactory condition. The sawn lumber trade has been fairly active during the year, and, though there has not been a great advance in values, the demand for lumber has been sufficient to keep prices firm. The output of logs and timber last year was less than that of the previous year, and consequently the stocks of logs and lumber held at the mills have been greatly reduced. From present appearances, if the winter continues favorable, the output of sawlogs for the coming year will be greatly in excess of last year, and a consequently increased accrual of revenue may be expected."

About 95,000,000 feet of pine timber damaged by fire on the north shore of Lake Huron was placed on the market for sale, and disposed of at prices satisfactory to the department. Besides this loss, a result of the extremely dry weather of the past summer, about 100,000,000 feet, more or less, were damaged on licensed lands, but, owing to the presence of the fire rangers, the localities where the damage was done and the quantities damaged were known in time to enable the licensees to make arrangements to cut so much of the timber as would be wasted if not at once manufactured. The estimated loss on account of timber burnt on licensed lands, from figures furnished by the licensees, would appear to be about \$70,000. What the net loss from these fires will be to the province cannot yet be definitely stated until the cutting is completed, but there seems to be little doubt that had it not been for the fire ranging service of the department these losses would have proven much heavier. The largest limit-holders in the province avail themselves of the service; and last season thirty-seven of the various lumber firms had rangers upon their limits. The number of rangers employed was ninety-eight, at a cost of \$20,053.24. In answer to circulars sent out the licensees have expressed themselves well satisfied with the fire ranging service.

The Ontario Cullers' Act came into operation for the first time last year, which necessitated the holding of examinations at various points throughout the province to test the fitness of persons desiring to be licensed to cull sawlogs and timber cut upon Crown lands. Each of the examining Boards consisted of three skilled persons, one of whom represented the lumbering interests, the other two being selected by the department. Examinations were held at thirteen of the most important and easily accessible lumbering centres; 383 candidates were examined, of whom 371 were found qualified and granted licenses.

CROWN LANDS IN NEW BRUNSWICK.

THE system of management of Crown Lands in New Brunswick has been a source of discontent and friction in that province for many years. To endeavor to remedy the various evils the Local Legislature in July, 1890, appointed a commission with instructions to enter fully into the question and report to the House at a later date. The Commission have taken nearly two years to complete the work, holding eighteen meetings during that time, with the result that the report is now in the hands of the provincial secretary.

The instructions to the Commission were in these words: "To investigate and report upon the best method of administering the Crown timber lands of the province, and in so doing to consider and report upon the relative merits of long and short leases; as to the rate of stumpage proper to be charged, having regard to the state and condition of the lumber market and the competition to which the New Brunswick product is subject in European markets; also as to the relative advantages and disadvantages to which the trade is subject in the northern section of the province as compared with the southern section; also as to what aid, if any, can properly be given, and upon what rivers and streams, towards facilitating driving operations; also as to what changes could with advantage be proposed and adopted in respect to the scaling of logs and lumber; also as to the permanent employment of scalers or rangers by the year and the mode of compensation to those officials;

also as to the protection and conservation of the forest wealth of the province." A circular was sent to those engaged in the lumber business in other provinces, and also to the leading lumbermen of New Brunswick, in which accurate information and statistics were sought on various troublesome points. Oral testimony was likewise taken from a number of persons interested in lumber affairs.

The report favors long leases rather than short leases, as being in the interests of both the Crown and lessee and is consistent with the practice in Maine, and is said to be the general desire of the principal operators in the province. The recommendation is made that at the expiration of the term for which existing leases are held the lumber lands be leased at public auction, to be held by the lessees thereof by yearly license, renewable from year to year during the pleasure of the Government under conditions of compliance with all regulations made or to be made by the Governor-in-Council. The Commission say they are of the opinion that "the present value of the timber upon the Crown lands is considerably in excess of the rate or price for stumpage now obtained therefor, and if it were husbanded a rate of stumpage very much larger, perhaps double the present rate, would be realized within a few years. It is urged that there should be a strict enforcement of the law against cutting under-sized trees for pulpwood as well as piling. To correct this prevailing abuse the Commissioners advise that in all such cases double stumpage be charged. They would not at present advise discriminating rates of stumpage in different sections of the province, but advise that the stumpage on cedar be made the same as on spruce and pine logs.

Following on the lines of management of Crown lands in Ontario the Commission further recommend the permanent employment of men of experience and character to act as scalers, rangers, fire police, fishery and game wardens, assistants in surveying, etc., at fixed yearly salaries, to be paid out of the Crown land revenues. The Commission would have these appointments non-political. They find that at present the scaling is not uniform, and that while in many cases operators have had their logs over-scaled, yet on the whole there has been a loss of stumpage to the Province of perhaps 20 per cent. No reasonable expenditure, it is stated, should be considered too great for the protection of timber lands from fire, and a clause should be inserted in all leases requiring lessees to use every reasonable precaution to protect them against fire.

They would have an appropriation made annually to be expended in retracing and marking established lines of survey, and would like to have all the timber lands of the Province surveyed into blocks of not more than five miles square, and the quantity of lumber thereon approximately ascertained, when the expense is warranted. They direct attention to the injury done to the lumbering interest as well as to the reputation of the Province as an agricultural district by permitting settlers to locate on timber lands which are unfit for tillage. They also direct attention to the waste of hemlock timber when cut for the purpose of obtaining bark, the logs being left to rot in the woods.

The report is signed by the three commissioners: Messrs. A. F. Randolph, Frank Todd and Hon. Allan Ritchie. It has been looked for with more than ordinary interest by lumbermen both inside and outside of New Brunswick; and will prove of general interest to LUMBERMAN readers in their desire to keep in intelligent touch with lumber affairs generally.

LUMBER TARIFFS.

OUR Ottawa correspondent has something to say of the several deputations which have waited upon the Government within the past month asking that certain changes be made in the lumber tariff.

The requests named were in the line of increased duties on lumber; the paper men asking for a re-imposition of the duties on spruce, and British Columbians that Douglas fir be protected. Mr. Ives' notice of motion calls for a re-imposition of the duty on all sawlogs. On the 1st inst., after our Ottawa letter was in print, a large and influential deputation waited on Messrs. Abbott, Foster and Bowell, taking diametrically opposite ground on the lumber duties to that advocated by

the previous deputations. The lumbermen present were: Speaker White, Messrs. McCarthy, O'Brien, Bennett, Tyrwhitt and Edwards, of the House of Commons; Messrs. J. R. Booth, Hiram Robinson, Egan, James Gillies, F. W. Powell, David Maclaren and C. H. Edwards, representing the Ottawa lumber interests; and Messrs. James Scott, Wauhaushene; D. L. White, Midland; J. L. Burton and H. H. Strathy, Barrie; A. H. Campbell, Toronto. These gentlemen strongly opposed the reimposition of the export duty upon either sawlogs or wood pulp, believing that it must inevitably result in Canadian lumber coming under the operations of the clause of the McKinley Act which imposes a practically prohibitive duty upon lumber imported from countries which impose an export duty upon logs. They also strongly opposed the proposed increase in the duty upon mess pork, contending that Canadian farmers are yet unable to supply the demand, and that the imposition of the extra 1½ cents per pound could only result in loss to the lumbermen.

In our Michigan letter, and also in the E.L.I. columns, some brief reference is made to tariff matters in the United States. The fact is that nothing has yet taken a formative shape in actual legislation in either country. The Washington convention fell flat, only about fifty representatives visiting the Capital. United States lumbermen are in no sense unanimous in their opposition to Mr. Bryan's bill, whilst others are perfectly indifferent, and not a few would welcome free lumber. The Chicago Timberman counsels its friends "to keep cool and speak softly; even if the tariff were removed the United States would survive the shock and lumber still be worth more than cost." And the New York Lumber Trades Journal says: "A duty does not protect the lumber dealer, but it does protect the owner of stumpage; yellow pine does not compete to any great extent with Canada pine; and the price of pine beams and heart flooring is very little affected by the price of Canada pine." It is a case where some are doing a good deal of barking. The watchful dog must sustain his record for watchfulness, but the bark is very harmless.

EDITORIAL NOTES.

DENVER, Col., is to have a lumber trust, framed with sufficient ingenuity to avoid the penalties of the law.

WE have received, too late for insertion or comment in this number of the LUMBERMAN, a letter from Mr. Wm. Little, of Montreal, Que., anent tariff matters. Some mention will be made of the subject in May.

THE Forestry division of the United States Department of Agriculture have been making a series of tests to ascertain whether the allegation that the withdrawal of resinous matter from the long leaf pine of the south has an injurious effect upon the strength of the trees subjected to these tests. This practice is known as "boxing" the timber, because the gathering of the resin is done by cutting a recess (box) into the foot of the tree, which is called "boxing" the tree, and then scarring (chipping) the trunk above the box, increasing the size of the scar from year to year. From this scar the semi-liquid resin exudates and drains into the box; this process is continued for four years, and then the trees, lessening in yield, are abandoned. The current public belief has been that the timber of these "boxed" trees, sometimes called "turpentine timber," is deteriorated by the process. Not only is its durability, in which this species excels, believed to be lessened, but also its strength, and hence its value in the market has been considerably reduced. Since annually from 500,000 to 750,000 acres of this pine are boxed, involving in this assumed deterioration, at the lowest estimate, 1,000,000,000 feet, B.M., of lumber, a considerable loss in values, counting by millions of dollars, is thereby incurred. Mr. Fernow, chief of the forestry division, made some 115 tests of "boxed" timber. He does not admit that his conclusions from the experiments made are to be deemed absolute. He thinks it may be desirable to extend the investigation. The finding, however, is this: "Although enough tests have not been made to enable general laws to be formulated, the tests are sufficient in number to indicate that, generally speaking, 'boxed' longleaf pine loses none of its strength on account of undergoing that practice."



THE shrewd business man fits in his business to suit the requirements of the locality where he is domiciled. No sane man would think of opening an ice-cream restaurant among the Esquimaux, nor expect to do a thriving coal trade in the heart of Central Africa. But such conditions might possibly be reversed with some advantage to all concerned. Lumberman John Gunyo, of Brighton, Ont., is one of the men who aims to do business where business can be done. I had a talk with him a few days ago and learned that he has purchased a new property in this thriving village, which he will fit up with modern machinery for the manufacture of cheese boxes and barrels. Brighton is the centre of a large cheese manufacturing country and Mr. Gunyo's trade in this direction may be taken as assured. Elm is grown in good quantities in the vicinity and is cut by Mr. Gunyo in his sawmill at Smithfield.

* * * *

Is not this a sensible view as expressed by the president of the Chicago Lumbermen's Association in his annual address? He said: "If our present business fails to show that measure of profit which the outlay of time and capital employed would seem to warrant, I cannot resist the conclusion that undue competition among ourselves in our home market is more at fault than the natural competition we must always expect to meet from other markets, seeking the same outlets for their lumber product." "Save me from my friends" has been the prayer of more than one man, and it is true that the obstacles that thwart trade in all lines of commerce, and we know it to be the case in lumber, and not confined to Chicago, are often from within rather than from without. I often think if those who take a particular enjoyment in fighting supposed enemies from an opposite camp would busy themselves in making the roadway clean before their own door, or, if you like, examine the condition of the mote in their own eye, that they would realize substantial business results much more quickly.

* * * *

Mr. Phipps, provincial forestry officer, with commendable persistency, never loses an opportunity to put in a word on his favorite subject—forestry. I was glad to learn of his talk to the boys of Upper Canada college a few days ago. Catch a Scotchman, it is said, when he is young, and imbue him with right notions on any subject and one has an ardent disciple for all time. Others besides Scotchmen are shaped right when caught young. It was a happy idea of Mr. Phipps to undertake to impart to these college youths correct thoughts and principles in regard to one of the richest of our natural products. Who knows but what a future Commissioner of Crown Lands was in that audience? We may be sure that future parliamentarians were there; doubtless, successors to the lumber operators of this day; certainly the coming citizen was there. The question of forestry is a citizen's question, and the boys of all our educational institutions, from the lowest to the highest, should be taught the leading principles of forestry. Let me whisper to the Minister of Education, who has always shown himself ready to fall in with any suggestion of a national character, that it would be a popular move to arrange for a talk on "Forestry" by Mr. Phipps, or other experts, to public school and high school pupils, and it would not be a mistake for the teachers themselves to have a lecture on the subject.

* * * *

I have heard an amusing story of an old-time lumber king of Aroostook county, Me., which readers of this page will enjoy, perhaps more particularly those of New Brunswick, some of whom were doubtless acquainted with Colonel John Goddard, the subject of the yarn, who was at one time a prominent figure in Ashland and other parts of Maine. He was an eccentric genius

and was made the leading character in a novel called "Now-a-Days." On one occasion, when he wanted to hire an ox teamster, Goddard went into the barroom of a tavern to test the ability to drive his oxen of a dozen woodsmen gathered there. He got down upon his hands and knees and acted the part of a contrary ox, inviting the crowd to display their skill as teamsters. Several tried and failed to suit the great lumberman, when up stepped a strapping young six-footer, who remarked that he could start any ox in Aroostook. He took the goad-stick, in the end of which was a long brad, and tried the ordinary methods for a while, but the ox shook his head and wouldn't budge. Then the new candidate for teamster suddenly jammed the business end of the goad an inch deep into Goddard's flank, and the result was startling. The lumberman emitted a yell which could be heard across the St. John, sprang to his feet and wanted to fight. But he cooled down under the calm gaze of the six-footer, joined the general laugh and hired the man on the spot.

* * * *

Ship-building calls for spars and masts to-day much larger in size than those used in the years 1865 to 1870. Then the vessels built were smaller than the crafts of to-day. Our eastern provinces, together with New Hampshire and Maine, supplied the timbers for these purposes at that time. But their forests are thinned out of suitable timbers, and British Columbia and Washington Territory are enjoying this trade to-day. Mr. J. L. Cunningham, of Boston, whose business it is to supply masts for ships to the Atlantic shipbuilders, tells in an interview something of this trade. "The northern pine," he says, "is next to the white oak in strength, and has double the strength of the eastern pine. I buy nothing over 115 feet in length, but we could get masts 150 feet long if we wanted them. It is little trouble to get a stick 150 feet long without a knot. The lumber business in the State of Washington is extremely dull, and half the mills along Puget Sound are idle. A stick that cost \$110 a year ago can now be bought for \$60. The reason? The South American and Australian markets have been overstocked, and there is no demand. The markets are glutted. Why, a year ago the freight on 1,000 feet of lumber to South American ports was \$21.50; to-day it is \$9.50, and the worst of it is there are no prospects of improvement for the present. A cargo per year of such spar timber is shipped in the rough, and the masts are shaped at New England and eastern shipyards."

* * * *

Our old friend, P. O. Byram, of Victoria Co., N.B., writes: Mr. E.L.I. by the looks of your keen eye, I think you can tell us the most destructive animals with which we have to contend, and how to keep them from destroying our commonwealth. I may be mistaken; but, as the Yankee says: I presume to calculate its the highest grade of the human species. About fifty years ago, before the grading of animals was known, our graneries held out and supported the race without fear or alarm; and owing to the toll coming indirectly out of the consumer's dish, they were not aware it cost anything to support them. But since Confederation and the grading by class took place, we have attained to a state of such high cultivation consumers begin to view their situation with alarm, and fear the bottom will fall out of their grain bin. I propose to change the programme, taking the toll to find the stock, instead of taking it indirectly out of the consumers, and they not aware how much it costs them to keep up the race; take it direct out of capital, according to number of thousand dollars in matter, instead of out of the poor consumer, having to support eight or ten children, under the head of protection and indirect taxation. In how long capitalists will stand to be taxed to hold out a premium to Brother Johnathan of thirty-five cents in shingles and \$2.00 per M. put on other lumber for them to cross the lines above Grand Falls; to slaughter our forests and carry it on the American side to manufacture it. But in Ottawa, New Brunswick interests are poorly represented or they would not stand such nonsense. What's your opinion about it?

THE CANADA LUMBERMAN is a most excellent trade paper, and ably represents the interests of the Canadian lumbermen.—Chicago Lumber Trades Journal.

OTTAWA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE Government has been waited upon during the month by several deputations directly or indirectly connected with our timber interests.

The paper makers are pressing their claims for a re-imposition of the export duty on wood exported to the United States for the manufacture of paper. A deputation consisting of Mr. John McFarlane, manager of the Canada Paper Company and President of the Paper Makers' Union of Canada; Mr. E. B. Eddy, of the Hull Paper Mills; Mr. John R. Scott, of the Napanee Paper Mills; Mr. Rowley, manager for E. B. Eddy, and Mr. J. J. Gornully, Q.C., Ottawa, had a conference a few days ago with Mr. Abbott, Mr. Foster and Mr. Mackenzie Bowell touching this matter. Spruce pulpwood and spruce logs are being heavily drained upon by United States concerns and it is on these specially that a re-imposition of the duty is asked. It was pointed out that when the United States had, under the conditions of the McKinley Bill, reduced the duty on pine lumber to \$1.00 per thousand feet, spruce was not included, and remains at \$2.00 per thousand, whilst the export duty on spruce logs was removed altogether, as in the case of pine logs. This has given the United States dealer, it is alleged, an unfair control of our spruce stocks. The United States had in the meantime imposed a duty on ground wood pulp of \$2.50 a ton, a rate which amounted to about \$1.25 a cord; and in that way, spruce being largely the substance from which ground wood pulp is made, their tariff practically prohibited the importation of that article into the United States, except at the high rate of duty, thereby getting the better of Canada.

The Government has also been approached by the British Columbia members, who consider that in the constitution of the McKinley Bill an invidious distinction has been made against Douglas fir, a rich product of the Pacific province, as with spruce in Quebec and New Brunswick. They ask for a similar duty on pitch pine and redwood imported into Canada to that exacted by the United States Government upon Douglas fir entering the United States, unless the British Columbia Douglas fir is admitted free into the United States.

Supplementing these requests of a special character from lumbermen is the notice of motion of Mr. Ives, M.P., which has a position on the order paper asking for a re-imposition of the duty on sawlogs all round; in other words, going back to conditions before the McKinley Bill was a known article of legislation.

The First minister and his colleagues have promised to give prompt consideration to the wishes of the paper men and British Columbia lumbermen, but with what effect it is difficult to say. It looks, however, as if Mr. Ives, who is a Government supporter, though he had been disposed to kick, will be kept reasonably quiet, and his motion will probably get no further than the order paper.

AFFAIRS OF THE CASSELMAN LUMBER CO.

More than ordinary interest is being taken by all classes in the affairs of the Casselman Lumber Co., now in liquidation. The statement of assets and liabilities prepared by Mr. J. M. Garland, liquidator, shows the total liabilities to be \$124,000, and nominal assets \$143,000. These consist mainly of lands covered by mortgage, and logs and lumber, which is largely hypothecated, and if placed under forced sale would exhibit a material shrinkage. Besides an action, it has been stated, has been entered by the Molson's Bank to attempt to recover possession of a large portion of the real estate, including the large site of the sawmill, which was burned a month ago. All these circumstances give a problematical character to the estate, in which many Ottawa lumbermen and others have a considerable interest as creditors. A wider interest is felt by the residents of the village of Casselman, the very existence of which is practically dependent upon the welfare of the company. If the company is to be wiped out it almost means the extinguishing of Casselman, and a serious loss of trade to storekeepers both of the village and in Ottawa.

OTTAWA, ONT., March 28, 1892.

Thirty million feet of logs are banked on the Tillabawassu River at Midland and 20,000,000 at Averill, Mich.

BRITISH COLUMBIA LETTER.

[Regular correspondence CANADA LUMBERMAN.]

MR. JOHN WILSON, manager of the Brunette Sawmill Co., has recently returned from a trip to the Australian colonies, and shrewd, observing man as he is, every opportunity was utilized to study the country and its people.

Mr. Wilson went on business, of course, and we have reason to believe that his mission in this respect was successful. Trade in Australia, as LUMBERMAN readers know, has been very flat for some time back, though the outlook is now rather more promising. Labor disturbances have crippled business in these colonies, as they have in other parts of the world. Mr. Wilson's opinion is that the strikes in Melbourne and Queensland have been the means of keeping a great deal of capital out of the country.

Australia has got great undeveloped wealth in minerals, etc., and, with the exception of the colony of Victoria, the exports exceed the imports. The feeling is general in all the colonies that a steamship line from British Columbia direct would be of great benefit, not alone to them but to Canada, and they are hopeful not only of seeing the two countries connected with a direct steamship line, but also with a commercial cable. When this becomes an accomplished fact the C.P.R. will be the highway between the Australian colonies and England. The time now occupied between Vancouver and Sydney is twenty-eight days. This could easily be reduced to twenty days by a direct line.

Mr. Wilson was rather astonished at the railways in Australia, which are all run by the colonial Governments, on the European system. He says the Australian merchants are more anxious to increase their dealings with Canada than with the United States.

Six years ago the Broker Hill Silver Mines were bought for \$7,000 and since then have paid the stockholders \$15,000,000, and are to-day worth a fabulous amount. The town of Broker Hill, when Mr. Wilson visited it, was depending upon the railway for its water supply, and water was then selling at six shillings per 100 gallons, to a population of 30,000 people. The thermometer at Broker Hill registered 103° in the shade. The federation of all the Australian colonies is looked for in the near future, and sanguine people think this will be the forerunner of Imperial Federation. Mr. Wilson enjoyed his Christmas dinner in the height of summer, and with a fan in his hand.

GREAT LUMBER DEAL.

A big deal in British Columbia timber and sawmill properties was consummated last week, when Mr. L. H. Northey, acting for himself and Senator Drumm, Mr. W. B. Allan, Mr. P. A. Paulson and Mr. B. Carmody, of Tacoma, entered into an agreement with Mr. W. P. Sayward, of Victoria, to purchase his big mill, in operation at Roc. Bay, his timber limits comprising some 15,000 acres on Vancouver Island, his steamers and all the other paraphernalia of the immense business, which is one of the oldest established and most important in British Columbia. The contract figure is not yet made public, but it is understood to be in the neighborhood of \$350,000. The company purchasing are allowed until the first day of May to inspect the timber, which has not yet been thoroughly examined, and then Mr. Sayward is to have sixty days in which to wind up affairs. The acquisition of the Sayward property will give Mr. Northey and his associates 50,000 acres of timber land in this province, and their intention is, as soon as they take possession, to proceed with the erection of a thoroughly and modernly equipped mill in Victoria, capable of cutting not less than 180,000 feet per diem.

SHAVINGS.

The Brunette Sawmill Co. has substituted the Dick belt for the rope transmitters formerly in use, and have now the largest driving belt ever used on the mainland. It is eighty-six feet five inches in circumference, thirty-six inches wide, made endless, of gutta percha and canvas, and it is claimed that it can be used in the water if necessary, without stretching.

The fine weather continues and orders for building keep the mills busy.

Prospects for trade with Australia and South America are improving.

Cassaday's shingle mill at Vancouver has cut 40,000

shingles daily for some time, which is considered very good work.

Michael Fortin, of the Mission sash and door factory, reports business good.

A. B. Dixon has been appointed manager of the Mission sawmills.

The twelve new boilers for the Moodyville mill have been brought over from Victoria. The mill will be running again by April 1.

The Okanagan Sawmill Co. lost 9,000,000 ft. of lumber in their drying kiln last week. H.G.R.

NEW WESTMINSTER, B.C., March 25, 1892.

MICHIGAN LETTER.

[Regular correspondence CANADA LUMBERMAN.]

THE State of Michigan holds the first position in the production of lumber of any State in the American Union. The following compilation, however, covering the years 1885 to 1891, shows that, with the exception of the first-named year, the product of 1891 has been the lowest in seven years. The table I here append gives the product in both lumber and shingles:—

	Lumber.	Shingles.
1885.....	3,578,138,732	2,574,675,900
1886.....	3,984,117,175	2,988,124,232
1887.....	4,162,317,778	2,677,858,750
1888.....	4,292,189,014	2,846,201,000
1889.....	4,207,741,224	2,602,930,250
1890.....	4,085,707,849	2,469,878,750
1891.....	3,599,531,668	1,813,874,250

A comparison of stocks on hand shows as follows:—

	Lumber.	Shingles.
1885.....	1,252,940,251	211,229,500
1886.....	1,354,101,834	283,938,000
1887.....	1,428,244,132	195,218,000
1888.....	1,463,226,000	335,952,256
1889.....	1,447,503,997	372,807,250
1890.....	1,436,878,279	376,875,750
1891.....	1,218,683,167	199,211,250

A reduced output is also shown in staves and headings for 1891, compared with 1890. The figures for the former tell of the manufacture on the mills of the Saginaw River of 28,179,492 pine staves and 1,639,417 sets of heading for salt packages, while in 1890 there were produced 31,981,191 staves and 2,922,122 sets of heading, showing a decrease of 3,801,699 staves and 1,282,705 sets of heading.

While on the line of statistics I might here append some interesting figures showing how rapidly rail shipments of lumber are growing on the shipments by water. Take the figures of the past five years to illustrate:—

Year.	Water.	Rail.
1887.....	486,185,000	261,900,000
1888.....	451,391,000	304,362,000
1889.....	432,130,000	352,500,000
1890.....	409,872,000	401,847,000
1891.....	404,577,000	405,258,000

FREE LUMBER TALK.

The lumbermen's convention at Washington has been a subject of more or less conversation among the representatives of the trade here. It can hardly be said that many of them entuse to the boiling point after the manner of the Northwestern Lumberman. They are just a little too level-headed for that sort of thing. We have lumbermen who would like to see free lumber the policy of this country, and there are others who would welcome an increased duty on all lumber coming from your country. But the trade is by no means unanimous on any of these matters. The truth is, and the meagre interest shown by the small attendance at Washington confirms this view, the trade generally do not view with serious alarm a free lumber bill should it become law. As I have already suggested, it might pinch a little in some quarters, but these drawbacks would be offset in part, if not exceeded, by advantages in other directions.

PIECE STUFF.

The manufacture of egg cases is one of the adjuncts of the lumber business carried on extensively in Saginaw and other parts of the State.

The Mackinac division of the Michigan Central have found it necessary to increase the locomotive service owing to the heavy demands of the log traffic.

Ten thousand dollars is the handsome donation of lumberman John F. Eddy, of Bay City, toward Buchtel College, at Akron, O., to be expended for a science building.

SAGINAW, MICH., March 26, 1892.

PICA.

LUMBER UNDER COVER.

IT is getting to be an acknowledged fact that any kind of lumber left exposed to the weather after one summer in the open air will deteriorate very rapidly, the actual loss by this means ranging from 2½ to 10 per cent, according to the kind of wood and the season of exposure. It is an open question whether the loss does not commence with the first day's exposure. Authorities differ on this head, some claiming that with the exception of a very limited number of kinds of timber all lumber is better for open air exposure for a certain length of time, varying with circumstances, such as thickness, variety of timber, amount of sap, etc., but more especially according to the season, which in turn varies both with latitude and longitude. The area of the hardwoods is so extensive that all these conditions enter into the question so far as it pertains to them.

The statement of a few practical facts on this subject will serve to help settle the question. It is generally known that the sap part of any wood is the first to decay under ordinary circumstances; but it is not so well known that if the sap wood were kept in an absolutely dry atmosphere it would rot no sooner than the rest of the tree. Theoretically there can be no decay without moisture coupled with sufficient heat to produce a certain chemical action.

Every one knows that a quantity of green or wet lumber, thrown into a solid pile, if left for any time on a reasonably warm day, especially if the weather be cloudy or the air be heavily charged with moisture, will commence to take on a green or black stain. This stain will penetrate the entire sap portion of the lumber in a short time, varying with the temperature and humidity, and with many kinds of lumber will spread to the heart portion, becoming in all cases indelible.

This green or black stain is in reality a mold or fungoid growth, which is the first visible evidence of the chemical changes leading to decay. For all practical purposes the solid matter in all hardwoods is the same, varying only in proportion, and but slightly in a long list. Thus the variations in timber are caused not by differences in solid matter, but by the different arrangement of the particles of that matter coupled with the fluid or volatile elements which are the life-blood of the tree.

The growing tree is a complete chemical laboratory within itself, working day and night building up trunk, branches and leaves. Often the work goes on for some time after the tree is felled; but practically a complete change of chemical action takes place shortly after that event, and if the tree or the lumber into which it may be made is left unprotected, exposed to the elements, wind, rain, snow and alternating heat and cold, the chemical action of the fluids tends to the destruction rather than to the building up of the fibre.

Leave the tree in the damp, shaded woods, stretched upon the ground, from which added moisture may be drawn, with the temperature above forty-five degrees, and the work of destruction, beginning with the sap portion and the bark, proceeds rapidly. Place the trunk in a position where external moisture will be excluded, and where, by a circulation of dry air, the fluids and volatile matter may be easily and freely evaporated, and the destructive influences are reduced to a great extent. Remove the bark, saw the log into lumber and you reduce them to a minimum.

Change the location of that tree trunk or lumber to the open air, where it will be subjected to all the influences of the variable climate of the temperate zone, and the destructive forces are at once stimulated to renewed action.

This covers the whole question of protecting lumber by covering or sheds. Even if it be conceded that it is better dried in the open air, there can be no question that so soon as the drying is accomplished the stock will lose value rapidly thereafter if still left exposed. So well known is this fact that buyers of dry stock to hold for re-selling, count in this prospective loss as part of the cost of handling.

The dealers in costly foreign woods have long realized this fact, and invariably house their stock in such a manner as to protect it from the weather as much as possible without using artificial means.

UTILITY OF THE EMERY-WHEEL IN WORKSHOPS.

BY J. H. MINER.

HOW few machinists there be that know the utility of the emery-wheel, and what it is adapted to. One-half of the machine shops throughout the country have nothing more than a grindstone, and that is used only for tool sharpening. In all branches of repair and fitting there is more or less chipping, filing, etc. The emery-wheel will reduce the part in the time it takes to tighten the work in the vice in many cases, leaves the part finished a flatter face than is possible to do with the file. In fitting bolts and boxes of the ordinary class, a dozen can be fitted while one piece can be by chipping. In rough castings there is much annoyance in chipping from the particles of sand which only adds to the wheel's cutting. In fitting up keys and outside work on straps, etc., it is superior to the shaper in time saving. What the emery-wheel will do is limited only to the skill of the operator. The setting, care of and the right grade of wheel for the work is a very important item, and is looked after but little. A wheel should be hung on a heavy, true and well-balanced mandrel, should have a rigid rest for the work so adjusted as to be kept right up with the wear of the wheel where side-dressing is necessary, as in turning up a flat surface. The rest should be adjustable sidewise. A good wheel requires but little dressing to be kept true, if rightly set up. A rickety stand and rest condemns the wheel. Instead of cutting free, it runs with a chatter and shock of a battery, emits a lot of dust not very advisable to consumptives, while the operator's eyes may be partly filled; and this is not all, a broken wheel is the result nine times out of ten in such cases. No work should be allowed to rock, nor should it be held loosely to the wheel. Hold it firm, and a well set wheel will reduce more in one minute than a file or chisel in five. Collars should be one-third the diameter of the wheel, with pasteboard washers between collar and wheel. See that wheel does not fit the mandrel tight, if so, heat from the bearing through any neglect might burst the wheel. Wheels as a general thing are not belted heavy enough to work without slipping. Light single leather, one-quarter in width to the size of the wheel is not too much for stands. The work must be kept moving for fast cutting or the wheel will glaze quickly by fusing the metal. To get good results, wheels must be of the proper grade. For edging cast-iron or steel, taking gates and sprues off castings, a coarse hard wheel should be used. Such a wheel is not suitable for flat or surface work as it will glaze quickly, while a soft wheel would not edge-grind, but would wear and crumble off. For general use a medium hard and coarse wheel is best. For soft metals as malleable iron, brass and tool grinding, a medium soft wheel is best. A hard wheel on planer and moulding bits will draw the temper if great care is not exercised. Where much grinding is necessary in a short time, the article should be cooled frequently, which prevents glazing, keeping up free cutting.

There are many poor class wheels in the market. Users, by changing, can determine this to their satisfaction. Aside from the ordinary stand, the emery-wheel is used for various machine work, as planers, pulley grinders, and finishing up shafting for special work.

It is indispensable in car works for grinding car wheels. For chilled castings and case-hardened bearings the emery-wheel has no equal, in fact, no substitute can compare with it. The simplest form of dresser, which is very good, is a one-half or five-eighths bolt with about a dozen thin washers; slip on a loose nut and, with the thumb and finger of the left hand, hold the blank nut to the washers, leaving just sufficient room to allow them to revolve. You can dress your wheel in any desired shape very quickly. For truing the wheel, allow the head of the bolt to rest on the support before the wheel and by ruling it to the desired position the wheel can be trued. The bolt should be eight or ten inches long, and may have a handle screwed on in place of a nut. When washers are worn they can be quickly renewed. The shorter the angle that the washers will revolve at, the quicker and better the work will be done; to revolve with the wheel in the same ratio will accomplish but little.

New Brunswick sawmills have commenced operations.

A BIT OF CANADIAN HISTORY.

PORTAGE-DU-FORT, in the county of Pontiac, Que., will be the scene during the coming summer of a big demonstration. The occasion will be the unveiling of the monument which is to be erected over the grave of Cadieux, a French-Canadian voyageur, whose name is familiar to the ear of every voyageur, as well as every French-Canadian in the eastern part of Canada. A brief history of the death of Cadieux, as told by an Ottawa journalist, will be of interest to the public. In 1801 Cadieux, together with three other voyageurs, were making an ascent of the Ottawa River. When they arrived at the head of the Calumet Island, where there is a heavy shute of water, which is known as a very treacherous spot by all rivermen, their provisions ran out. Cadieux went into the bush at the head of the island in search of game, leaving his three companions on the shore in charge of his birch bark canoe. He was gone but a short time when a band of Iroquois Indians, who at that time were at war with the white men, were noticed coming down the river in canoes. The Indians had gained sight of them, and were rapidly approaching the island before the voyageurs took the alarm. There was no time to search for Cadieux, so, hastily shoving off the canoe, they made for the Quebec shore, thinking they could reach Portage-du-Fort, which was at that time a Hudson Bay fort. The current, however, proved too strong for them, and in spite of their strenuous efforts they were borne to the brink of the rapids. Over the shute they went, while their pursuers thought the men had only met with death in a different manner from what had been intended for them. This, however, was not the case, and the men reached the shore in safety about a mile below. For two long days they remained where they had landed, anxiously awaiting the appearance of Cadieux, subsisting on what they could find in the way of game and berries. On the third day they made their way to the spot from which they had been so hastily driven. But a brief search in the surrounding bush revealed to them their lost companion, in a most pitiable state. Hunger and exposure had done their work, and Cadieux was breathing his last, and all their efforts to revive him were of no avail. One slight smile of recognition and he died in the arms of those with whom he had shared the trials and dangers of a river life in an unsettled country. On looking around to find a suitable spot to bury the body, they found close to his side a large piece of birch bark, on which was scratched a few lines in French, which to this day forms the most popular song of the Canadian river men. It is known as "Complainte de Cadieux," and is to be found in N. S. Gagnon's "Chansons Canadien." There they buried the remains of Cadieux, erected a rude wooden cross and surrounded the grave with a cedar fence. For some years past the parish priests and citizens of Fort Colonge have been obliged to renew the cross every second year, as the river men, when passing the grave, invariably chipped out a piece of the cross to wear as a talisman against the many accidents incident to a bushman's life. This fall the cross erected only two years before had disappeared, having been carried away piece by piece, and all that remains at present to indicate the spot which holds the remains of Cadieux is a piece of the cedar fence, about eighteen inches long, which has escaped the searching eyes of the voyageurs. Even the trees which surround the spot bear witness to the number of visitors, as there are, it is estimated, over 20,000 signatures and cross marks indented upon them. In such esteem is the memory of Cadieux held that many of the voyageurs look upon him as a patron saint, and the unveiling of his monument will no doubt be an event long to be remembered by the rivermen of the Ottawa district.

We talk of the rough character of the average bushman. Certainly his surroundings do not give much encouragement to the cultivation of the esthetic side of his nature. But does not the little incident cited here show a very noble side to that life; tell of a big-heartedness—a thoughtfulness for a fallen comrade—that would do credit to the most cultivated mind? The LUMBERMAN thinks so.

McNicol's sash and door factory, Renfrew, Ont., was destroyed by fire on the 26th ult.

TRADE REVIEW.

Office of CANADA LUMBERMAN, March 31, 1892.

THE GENERAL SURVEY.

TRADE during the month has been in the region of the future rather than the immediate present. March has not been a busy month for lumber, but the indications point to a fairly active season...

In country sections of Ontario business is likely to be fair, yet without any particular boom. Our trade with the United States shows a marked increase, and is likely to continue readily in the same direction.

NEW BRUNSWICK.

There is not much movement in trade in this province as yet, though with the spruce market bracing up in some degree, and stocks in the English market reported low, an improved trade is at least hoped for this year.

QUEBEC.

The harbor commissioners of Quebec in their annual report furnish some figures which, though supplied in the main by the LUMBERMAN in its annual review, will be found valuable as coming from this particular source.

MANITOWA.

Whilst the people of the Prairie province are not anticipating any unhealthy boom in building, they have, from the present conditions of the country, good reason to expect a brisk season's business.

BRITISH COLUMBIA.

Lumber business on the Coast continues quiet. The hope is entertained that the turn will soon come, but as yet it is not here. A representative of one of the largest lumber companies returned from Australia during the month.

The following are the prices agreed upon: Rough lumber, per M., \$10; best quality dressed lumber, per M., \$18; second quality dressed lumber, per M., \$14; laths, per M., \$2.25; shingles, per M., \$2.25.

inclusive, \$9 per M. feet; rough deck plank, average length thirty-five feet, \$19; dressed flooring, \$17; pickets, \$9; laths, four feet, \$2.

UNITED STATES.

Writing of trade for the month just closed, and remembering that we are not yet "out of the woods" so far as the winter season is concerned there is no particular reason to grumble of trade at any leading lumber point.

FOREIGN.

The wood trade in Great Britain does not look up. About the only consoling condition is the limited supplies of leading stocks on hand, which means that there must be some buying in the near future.

TORONTO, ONT.

TORONTO, March 31, 1892.

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

MONTREAL, QUE.

MONTREAL, March 31, 1892.

Table listing lumber prices in Montreal, Quebec, including items like Pine, Oak, and Spruce.

ST. JOHN, N.B.

ST. JOHN, March 31, 1892.

Table listing lumber prices in St. John, New Brunswick, including Spruce deals, Pine, and Hemlock boards.

OTTAWA, ONT.

OTTAWA, March 31, 1892.

Table listing lumber prices in Ottawa, Ontario, including Pine and Laths.

QUEBEC, QUE.

QUEBEC, March 31, 1892.

Table listing lumber prices in Quebec, Quebec, including White Pine, Oak, and Spruce.

BOSTON, MASS.

BOSTON, MASS., March 31.—This has been one of the quietest lumber points in the Union for several months. No power above or below seemed to be able to move things.

WESTERN PINE—BY CAR LOAD.

Table listing Western Pine prices by car load, including various sizes and quantities.

EASTERN PINE—CARGO OR CAR LOAD.

Table listing Eastern Pine prices for cargo or car load, including various sizes and quantities.

SPRUCE—BY CARGO.

Table listing Spruce prices by cargo, including various sizes and quantities.

LATHS.

Table listing Laths prices, including various sizes and quantities.

SHINGLES.

Table listing Shingles prices, including various sizes and quantities.

OSWEGO, N.Y.

OSWEGO, N.Y., March 31.—The encouraging winter trade done at this point is being followed by substantial signs of a lively spring opening.

and the anticipation is that these better grades will be on the short side the season through.

Table of lumber prices for Buffalo and Tonawanda, N.Y. Includes categories like 'WHITE PINE', 'SHINGLES', 'LATH', and 'SAGINAW, MICH.' with various grades and prices.

BUFFALO AND TONAWANDA, N.Y.

TONAWANDA, N.Y., March 31.—Better grades of lumber are altogether on the short side. This can hardly be considered other than a favorable outlook for spring trade.

Table of lumber prices for Buffalo and Tonawanda, N.Y. Includes categories like 'WHITE PINE', 'SHINGLES', 'LATH', and 'SAGINAW, MICH.' with various grades and prices.

ALBANY, N.Y.

ALBANY, N.Y., March 31.—Not a few hopeful signs tell of an active spring trade. Trade has been very encouraging throughout the present month, and with navigation about opening there can be no doubt of increased activity in lumber.

Table of lumber prices for Albany, N.Y. Includes categories like 'WHITE PINE', 'SHINGLES', 'LATH', and 'SAGINAW, MICH.' with various grades and prices.

Table of lumber prices for Saginaw, Mich. Includes categories like 'SHINGLES', 'LATH', 'SAGINAW, MICH.', 'PISHING LUMBER—ROUGH', and 'TIMBER, JOIST AND SCANTLING'.

NEW YORK CITY.

NEW YORK, March 31.—The trade are just a little disappointed at the expected revival in lumber has not commenced to show itself. Business, in fact, this month has been altogether slow.

Table of lumber prices for New York City. Includes categories like 'WHITE PINE—WESTERN GRADES', 'SHINGLES', and 'LATH'.

WABASH LINE.

If you are going to Chicago, St. Louis, Kansas City, Mexico or California, take the great Wabash Route, the banner line to the west. It runs the finest equipped trains on earth: the only railroad using the Palace Reclining Chair cars (free) from Detroit.

THE Province of Quebec Lottery holds an anomalous position with the lawmakers of our country, being legalized by the Government of Quebec and possessing its complete protection. Recent attempts made to secure the control of the funds of the concern have altogether failed.

A THREE CENT STAMP DOES IT.

ON receipt of a three cent stamp we will mail free to any address a copy of our little hand-book entitled "Rules and Regulations for the inspection of pine and hardwood lumber," as adopted by the lumber section and sanctioned by the Council of the Board of Trade, of Toronto, June 16, 1890.

THE NEWS.

CANADA.

—George H. Deschene, sawmill, etc., St. Epiphane, Que., has assigned.

—Preparations for starting the "drives" in the Parry Sound district have commenced.

—Joseph Lyons, a chopper of Carberry, Man., was struck with a falling tree and received a severe cut in the head.

—Robertson & Hackett, of Victoria, B.C., have bought a complete planing outfit of J. A. Fay & Co's machinery.

—Blonde Bros, sawmill, Clitham, Ont., have admitted J. Dowling into partnership under style Blonde Bros. & Dowling.

—Hughitt & McIntyre, of Genoa, B.C., have bought a heavy, fast-feed flooring machine, of the Hoyt Bros. Company's make.

—George Veitch's saw and stove mill, Clifford, Ont., has been burned, with a hundred thousand staves; loss, \$600; insured.

—Albert Dymont, son of N. Dymont, lumberman, of Barrie, Ont., is to assume the management of the Dymont Mill Co., at Thessalon.

—John McCallum, a farmer residing near Tiverton, Ont., lost his life whilst loading a sleigh with sawlogs; the logs slipped and struck him on the back.

—The Montreal and Kingston Forwarding Co. are asking for a reduction of the canal tolls upon lumber passing through the Rideau and St. Lawrence canals.

—Thomas McNeal, builder, of Markdale, Ont., has sold his sash and door factory at this place, and removed to Brandon, Man., where he has a large building trade.

—Mr. Alexander McLaren, of Buckingham, Que., son of the late James McLaren, has been elected first vice-president and general manager of the Central Ontario Railway.

—The Pacific Coast Lumber Co., at Lulu Island, opposite New Westminster, B.C., are putting in a shingle mill, supplied by the Wm. Hamilton Manufacturing Co., of Peterboro.

—Dick & Banning's mill at Keewatin, Ont., is being overhauled preparatory to the season's run. Manager Newell expects to start up early in April, and has a cut of 11,000,000 feet in view.

—The following financial troubles are reported in lumber circles in Toronto: Thomas Brown, contractor, assigned, owes \$1,700; George Davie, real estate, liabilities \$35,000; assets nominally \$37,000.

—R. S. Thompson, of Glenboro, Man., has sold out his lumber yard to A. R. Stevens, of the same place. Mr. Thompson still continues the furniture and implement business, and will also handle vehicles of all kinds in future.

—James P. Mitchell, one of the large lumber operators of Nova Scotia, will put in 2,000,000 feet on the Port Midway waters this season, and the Round Hill Co., operating on the Paradise waters, will receive an almost equal quantity.

—The British barque Mistletoe, 821 tons, Captain Smith, arrived in Royal Roads, Vancouver, ninety days out from Buenos Ayres. She is under charter to load lumber for the United States naval yard at Wilmington, Delaware, at the Hastings Mill, B.C.

—The planing mill at 17 Bartlett Avenue, Toronto, owned by James L. Hughes and operated by J. S. Williams, was destroyed a week ago by fire. The building was uninsured, but on the machinery and stock there was \$5,000. The damage is placed at \$3,000.

—A meeting of the creditors of Dougall McIlroyne, planing mill owner at Blenheim, was held a short time ago, at which a statement was submitted showing liabilities of \$4,500. Of this sum \$3,000 was secured by mortgage on machinery and real estate. As the creditors could not agree upon a plan of working the concern, nothing was done. Should those secured take possession outsiders will not be able to realize anything.

—It is estimated that there will be about 200,000 railway ties and about 1,000,000 paving posts got out on the Manitoulin Island, Ont., this winter. This estimate is made by men who have been pretty well over the ground, and have had some years of experience in the business, so that it may be taken as pretty reliable. There will also be several million feet of pine cut on the western end of the island this season.

—Mr. Joseph Sproat, of Wainapetae, near Saultury, Algoma, tells of the scaling of an immense load of sawlogs. This load consisted of twenty-two logs which scaled 11,415 feet. These logs, with two men on the load, were drawn at one load a distance of one and a-half miles by one pair of horses, at the Emery Lumber Company's lumber camp. The team was driven by Mr. William Hunter and the scale of the logs is certified by the scaler and the foreman of the camp.

CANADIAN LUMBER NEWS.

-Hanna Bros. are starting a sawmill at Squirrel Creek, Man.

-A black bear has been shot in the Greenock swamp, Colson township, Ont., by Cargill's lumbermen.

-R. Truax & Co., saw and planing mills, Walkerton, Ont.; P. Truax retiring, business to be continued by R. Truax.

-Murdy Bell, of Mono, Ont., was struck an ugly blow on the head a few days since, while felling a large spruce tree in the swamp near Elba.

-It is the opinion of lumbermen in eastern Ontario that wages this year will run beyond the average, ranging probably from \$18 to \$24 per month.

-R. H. O'Hara, formerly of Vancouver, B.C., has entered into partnership with E. J. Barclay, of Brandon, Man., in the lumber and coal business.

-Wm. J. Stokes, jr., son of Wm. Stokes, lumber merchant, of Windsor, was badly squeezed a few days ago, while coupling cars at Leamington, Ont.

-A local paper is authority for the statement that the sawmill at Bradford, Ont., is to be closed down, as the owners are moving nearer to where the timber grows.

-George Ross, an employee in the shingle mill at Aylesford, N.S., was caught in the machinery a few days ago and terribly mangled. Hopes are entertained of his recovery.

-Mickle and Dymont, it is said, have purchased the mills and other property of W. P. Christie & Co., at Severn Bridge, Ont., and will stock and run the mill this season.

-A lumberman, named Stevens, working for the Keewatin Lumber Co., near Whitefish Bay, Ont., attempted suicide a fortnight ago by taking poison and cutting his throat with a razor.

-Vansickle & Bro., of Barrie, Ont., are getting out this winter 2,000,000 feet of timber, consisting of pine, basswood, soft elm, black and white ash and red oak, and expect to start their mill early this month.

-The will of the late Mr. C. H. Waterous, of Brantford, Ont., bequeathes to his daughter, Mrs. Agnew, \$24,000 and twenty-four shares in the company. To his grandson, Charles Alexander, \$6,000 on or before his coming of age.

To his sister-in-law, Mrs. Mary Simpson, an annuity of \$100. To his sons, Fred L., Frank J. and David J., forty shares in the Waterous Engine Works, making with previous bequests forty-four shares each, the same number of shares being held by Messrs. J. E. and C. H. Waterous by former bequests.

The residue of the shares of the stock are to be divided amongst the five brothers, share and share alike, also the household furniture, etc. The dwelling and outbuildings of the deceased, with three acres of land, are left to Mr. C. H. Waterous.

-The mills of the Chaudiere are making active preparations for opening at an early day. The new mill of Bell, Orr, Hurdman & Co. will be ready for business on May 1. It will be an immense structure. The machinery is of the most modern kind, consisting of three large band saws and a wicker gate.

Carriages will be employed to convey the boards from the saws to the piling ground, thus saving both men and expense. Two large water-wheels of one thousand horse-power each have been placed in position, and the large flume is now completed. When completed the mill will employ upwards of 125 men, and will cut 250,000 feet and upwards of lumber each day. The additional machinery which has been added to J. R. Booth's large mill will greatly increase this season's cut, although the improvements will not be completed in time to allow the mill to run at its fullest capacity throughout the whole season.

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 17th of each month to insure insertion in the following issue.

SAW MILL FOR SALE

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

WANTED TO CONTRACT

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

Only responsible parties need apply, stating price delivered.

WHITE, POTTER & PAIGE MFG. CO., 415 Willoughby Ave., BROOKLYN, N.Y.

STEEL RAILS, ETC.

SEVERAL THOUSAND FEET "T" RAILS, 10 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways, 20 pair wheels and axles, all in good second-hand condition, very cheap.

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

WANTED TO BUY

GOOD CANADIAN TIMBER LIMITS AND Georgian Bay saw logs. Address, BEN BRID-SALL, Whitney Building, Detroit, Mich.



PINE AND HARDWOOD

WANTED-SIX MILLION FEET, WHITE Pine Mill Culls, 1, 1 1/2, 1 3/4 and 2 inch, at water and rail points for shipment to New York; also all kinds of Hardwoods. Lumber inspected at point of shipment and settled for by resident agent. Send list of stock, prices and freight rates to GRAVES & STEERS, Wholesale Lumber Merchants, 19 Whitehall Street, New York.

WANTED FOR CASH

Ash and Soft Elm

MOSTLY ONE-INCH, SOME ONE-AND-A-QUARTER and one-and-a-half inch, strictly first and seconds, must be of uniform color; also commons. Furthermore, Ash and Oak squares from one-and-a-half to four inches thick. Can also use Soft Elm Logs 20 in. and over in diameter for export; Red Birch Lumber 1, and 1 1/2, all thickness; also Red Birch squares 5 x 5 and 6 x 6, 10 feet and over long, good squares.

Address all particulars as to dryness, quality, quantity on hand and price, to P. O. Box 2144, New York, N.Y.

TIMBER BERTH FOR SALE

BERTH NO. 22, CONTAINING 36 SQUARE miles, situated on the north shore of Lake Huron, within about ten miles of Georgian Bay; well watered, and containing large quantity of pine timber. Has never been lumbered on. Apply to THE GEORGIAN BAY CONSOLIDATED LUMBER CO., Toronto.

SAWMILL FOR SALE CHEAP.

WE OFFER FOR SALE THE FOLLOWING: machinery as contained in our mill at Pontypool:

-One 55 horse-power boiler; one 45 horse-power Engine; Saw Rig and Carriage; Edger and Slat Saw; Bull Wheel; Log Car; Shafting, etc. All complete and in good running order. Can be seen in operation if desired.

JOHN IRVIN, Pontypool or Dunlark, Ont.

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

WANTED-WE ARE IN THE MARKET FOR three hundred thousand feet of beech, maple and poplar lumber. Apply to REDLICH MFG. CO., South Clark Street, Chicago, U.S.A.

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

HARDWOOD LUMBER BOUGHT, SOLD OR received on consignment. TUCKER DAVID, lumber commission merchant, 202 Eleventh Ave., N.Y.

E. STEWART, D.L.S. DEALER IN

Timber Limits IN ONTARIO, MANITOBA AND BRITISH COLUMBIA. CORRESPONDENCE SOLICITED. OFFICE, 24 MANNING ARCADE, KING ST. WEST, TORONTO, ONT.

MACHINERY

SECOND HAND MACHINERY FOR SALE by the Canada Machinery and Supply Co., Brantford, Ont., Dealers in New and Second Hand Machinery and Mill Supplies.

- 1 12 x 16 WATEROUS DOUBLE CUT-OFF ENGINE with Pickering governors.
1 12 x 16 BECKETT SLIDE VALVE ENGINE with Judson governors.
1 6 1/2 x 9 COPPERBROS. & BARRY SLIDE VALVE Engine.
1 5 1/2 x 9 SLIDE VALVE ENGINE.
1 6 - H. P. UPRIGHT ENGINE WITH 8 - H. P. boiler connected and set up on cast iron base.
1 7 - H. P. UPRIGHT MARINE ENGINE WITH 4 - h.p. upright boiler, complete with propeller shaft and screw.
2 BRICK-IN BOILERS 44 IN. DIAMETER BY 12 feet long.
1 25 - H. P. BRICK-IN BOILER.
1 6 H. P. UPRIGHT LEONARD BOILER.
3 SMALL FIRE BOX BOILERS FOR CHEESE factory use.
1 NORTHLEY STEAM PUMP, 2 1/2 IN. SUCTION, 1 1/2 inch discharge.
1 WATEROUS SELF-ACTING SHINGLE MILL and Joiner.
1 UPRIGHT SWING SHINGLE MILL AND Joiner.
1 WATEROUS LATH MACHINE, THREE saws.
1 SET IRONS FOR TWO HEAD BLOCK SAW mill.
1 GOLDIE & McCULLOCH IRON TOP Shaper.
2 CANT-GOURLAY 24-IN. PONY PLANERS.
1 CANT-GOURLAY 10-IN. BUZZ PLANER.
1 34-INCH WHEELS BAND SAW.
1 DOWELL MACHINE.
1 JIG SAW.
6 SAW TABLES.
1 BLIND SLAT TENONER.
52 FT. 6 IN. OF 18-INCH 6-PLY RUBBER drive belt in good order.
SHAFTINGS, HANGERS, PULLEYS, BELTING, etc., etc.
WRITE CANADA MACHINERY & SUPPLY Co., Brantford, Ont., for anything in new and second hand Engines, Boilers, Machinery and Supplies.

Rochester Bros. : : COMMISSION AGENTS

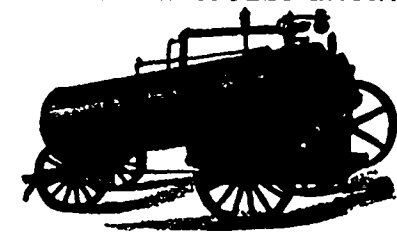
Limits bought and sold on commission. Limits travelled and carefully prepared. Estimates given. Some first-class berths on the North Shore of Lake Huron and on the Upper Ottawa now in our hands for sale. Communications confidential. References given.

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Portable from 6 to 70 horse power. Surpass portable steam power heretofore produced for strength, durability, compactness and the ease with which they can be moved.

The 70 horse power can be taken over the roughest roads, or into the forest, and set up as easily and quickly as an ordinary 20 horse power portable engine, and as firm as a brick-set stationary engine. Engines and boilers of every size and description. Rotary Saw Mills, Shingle and Lath Machines, Saw Grinders, Planers, etc. Mill machinery and supplies of every description. Every boiler insured against explosion by the Boiler Insurance & Inspection Co. of Canada.

Write for circulars. ROBB ENGINEERING CO., LTD. Successors to A. ROBB & SONS, Amherst Foundry and Machine Works. ESTABLISHED OVER 40 YEARS.

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Representative Lumber Manufacturers and Dealers

Town	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
"	"	Bronson & Weston Lumber Co.	2 Sawmills, White and Red Pine, Wholesale	Water, Gang and Band, 4500
"	"	OTTAWA LUMBER CO.	Lumber, Pine, Spruce, Hemlock, Wholesale	Water, Gang and Band, Saw 4000, Lath 700
"	"	Perley & Pattee	Saw and Lath Mill, Pine, Wholesale	
Parry Sound, Ont.	Uttersen	Conger Lumber Co.	Lumber, Wholesale and Retail.	
"	"	Parry Sound Lumber Co.	Saw, Shingle and Lath Mills, Pine, Wholesale	Water, Gang, Circular, Saw 900, Shingles 400, Lath 100
Muskoka Mills, Ont.	Penetang	Muskoka Mill and Lumber Co.	2 Saw, Sh. and Lath Mills, W. Pine, Ced., Whol.	Wat., Cir., Gang and Band, 1100
Alexandria, Ont.	Alexandria	McPherson, Schell & Co.	Cheese Box Factory, Pine, Spruce, Cedar	
Almonte, Ont.	Almonte	Caldwell, A. & Son	Sawmill, Pine, Lumber, Hemlock, Hardwoods	Circular, 3m
Barrie, Ont.	Barrie	Dymont & Mickle	Sawmill, Pine, Spruce, Cedar, Hardwoods	Steam, Circular, 40m
Barrow Bay, Ont.	Warton	Barrow Bay Lumber Co., Limited	Saw, Shingle and Heading Mill, Pine, Cedar	Steam, Circular, 16m
"	"	"	Oak, Oak Railway Ties, Paving Blocks	
Blind River, Ont.	Blind River	Blind River Lumber Co.	2 Saw, Sh. and Lath Mills, Pine, Hem., Bl. Birch	Stm., Band, Cir., S. 75m, Sh. 60m
Bohaysagon, Ont.	Fenelon Falls	Boyd, Mossom & Co.	Lumber, Wholesale and Retail.	
Bracebridge, Ont.	Bracebridge	DOLLAR, JAMES	Lumber, Shingles, Wholesale	
Bracebridge, Ont.	Bracebridge	Burton Bros.	Lumber, Wholesale and Retail.	
Byng Inlet, Ont.	Byng Inlet	Georgian Bay Consol'd. Lumber Co.	Sawmill, Pine, Hemlock, Birch	Steam, Circular, 20m
Calabogie, Ont.	Calabogie	Carwell, Thistle & McKay	Lumber, Wholesale and Retail.	
Collins Inlet, Ont.	Collins Inlet	Collins Inlet Lumber Co.	Lumber, Pine, Oak, Ash, Birch, Whol. and Ret.	
Comber, Ont.	Comber	Ainslie, J. S. & Bro.	Saw and Stave Mill, Pine, Hardwoods	Steam, Circular, 6m
Glanville, Ont.	Pinkerton	McIntyre, W. & A.	Saw, Shingle and Lath Mill, Timber Lands, Hemlock, Pine, Lumber, Hardwoods	Steam, Cir., Saw 14m, Sh. 20m
Hamilton, Ont.	Hamilton	BRADLEY, MORRIS & REID CO.	Lum., Tim., Pine, Hem., Hwd., Whol. and Ret.	
Huntsville, Ont.	Huntsville	Reath, Taft and Turnbull	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 25m
Hamilton, Ont.	Huntsville and Katrine	Thomson, Robert & Co.	Sawmill, Pine, Spruce, Hardwoods	Steam, Circular, 4m
Keewatin, Ont.	Keewatin	Dick, Banning & Co.	Sawmill, Pine, Hardwoods, Wholesale	Steam, Circular
"	"	Keewatin Lumber & Mfg. Co.	Saw, Lath, Sh. and Pl. Mill, Moving Posts, Pine	Water, Band and Circular, 100m
Lakefield, Ont.	Lakefield	Lakefield Lumber Mfg. Co.	Lumber, Wholesale and Retail.	
Little Current, Ont.	Sudbury	Charlton, J. & T.	Sawmill, Pine, Ash, Birch, Oak, Wholesale	Steam, Circular, 25m
"	"	Conlin, T. & J.	Sawmill, Pine, Ash, Birch, Oak	Steam, Circular, 25m
"	"	Howry, J. W. & Sons	Lumber, Wholesale and Retail.	
London, Ont.	London	Gordon, James	Lumber, Ash, Elm, Maple	
Longford Mills, Ont.	Longford	Longford Lumber Co.	Saw and Plan. Mill, Hemlock, Hardwoods, Whol.	Steam, Band and Circular, 100m
Midland, Ont.	Midland	Peters & Cain	Sawmill, Pine, Spruce, Hemlock, Hardwoods	Steam, Circular, 15m
Mount Forest, Ont.	Mount Forest	Greensides, W. S.	Cherry, White Ash, Hardwoods, Wholesale	
Norman, Ont.	Norman	CAMERON & KENNEDY	Saw and Plan. Mill, Tim. Lands and Logs, Pine	Steam, Circular, 4m
Toronto, Ont.	Toronto	Minnesota & Ontario Lumber Co.	Lumber, Wholesale and Retail.	
"	"	Campbell, A. H. & Co.	Lumber, Wholesale	
"	"	Donogh & Oliver	Lumber, Wholesale	Com.
"	"	Gall, Anderson & Co.	Lumber, Pine and Hardwoods, Wholesale	Com.
"	"	Ontario Lumber Co.	Lumber, Wholesale	
"	"	Shannon Shingle Manufacturing Co.	Shingle Mill, Pine, Cedar	Steam, 8m
Warton, Ont.	Warton	Victoria Harbor Lumber Co.	3 Saw, Shingle and Lath Mills, White Pine, Whol.	Stm., Cir., Gang and Band, 1400
"	"	Miller, B. B.	3 Sawmills, Lumber, Barrel Heads	Steam and Water, Circular, Portable and Stationary, 10m
Buckingham, Que.	Buckingham	Ross Bros.	2 Sawmills, Pine, Spruce, Hardwoods	Circular, Gang and Band, 180m
Chaudiere Mills, Que.	Chaudiere Stn.	Breakley, John	Sawmill, Pine, Spruce, Hardwoods, Wholesale	Water, Gang, 150m
Cookshire, Que.	Cookshire	Cookshire Mill Co.	Saw, Shingle, Planing, Stave and Heading Mill	Steam, Circular and Gang, 60m
Montreal, Que.	Montreal	Dufresse, O. Jr. & Frere	Sawmill, Pine, Spruce, Hemlock, Hwd., Whol.	Steam, Circular and Band, 50m
"	"	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., Dim.	2 Stm., 2 Wat., Band, Cir., 40m
Moolesville, B.C.	New Westminster	MOODYVILLE SAWMILL CO.	Sawmills, P. Fin, Spruce, Cedar, Hardwoods	Steam, Circular, 20m
New Westminster, B.C.	New Westminster	Brunette Sawmill Co.	Saw and Planing Mills, Sash, Doors and Blinds, Fir, Cedar, Spruce, Hardwoods	Steam, Gang and Circular
Canterbury, N.B.	Canterbury Stn.	James Morrison & Son	Sawmill, Pine, Hardwoods	Steam, Circular, 35m
Bridgewater, N.S.	Bridgewater	DAVIDSON, E. D. & SONS	5 Saw, Shgle. and Lath Mills, Pine, Spr., Hwd.	Water, Circular and Gang, 200m

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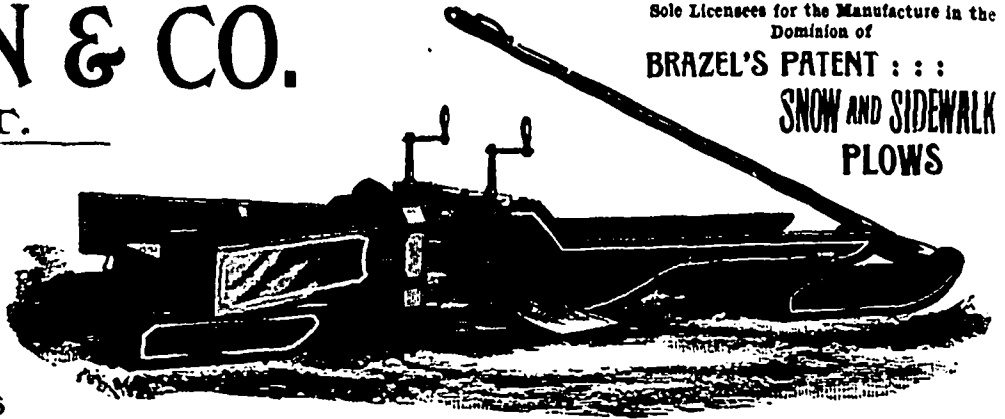
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... IN ...

Little Belt and
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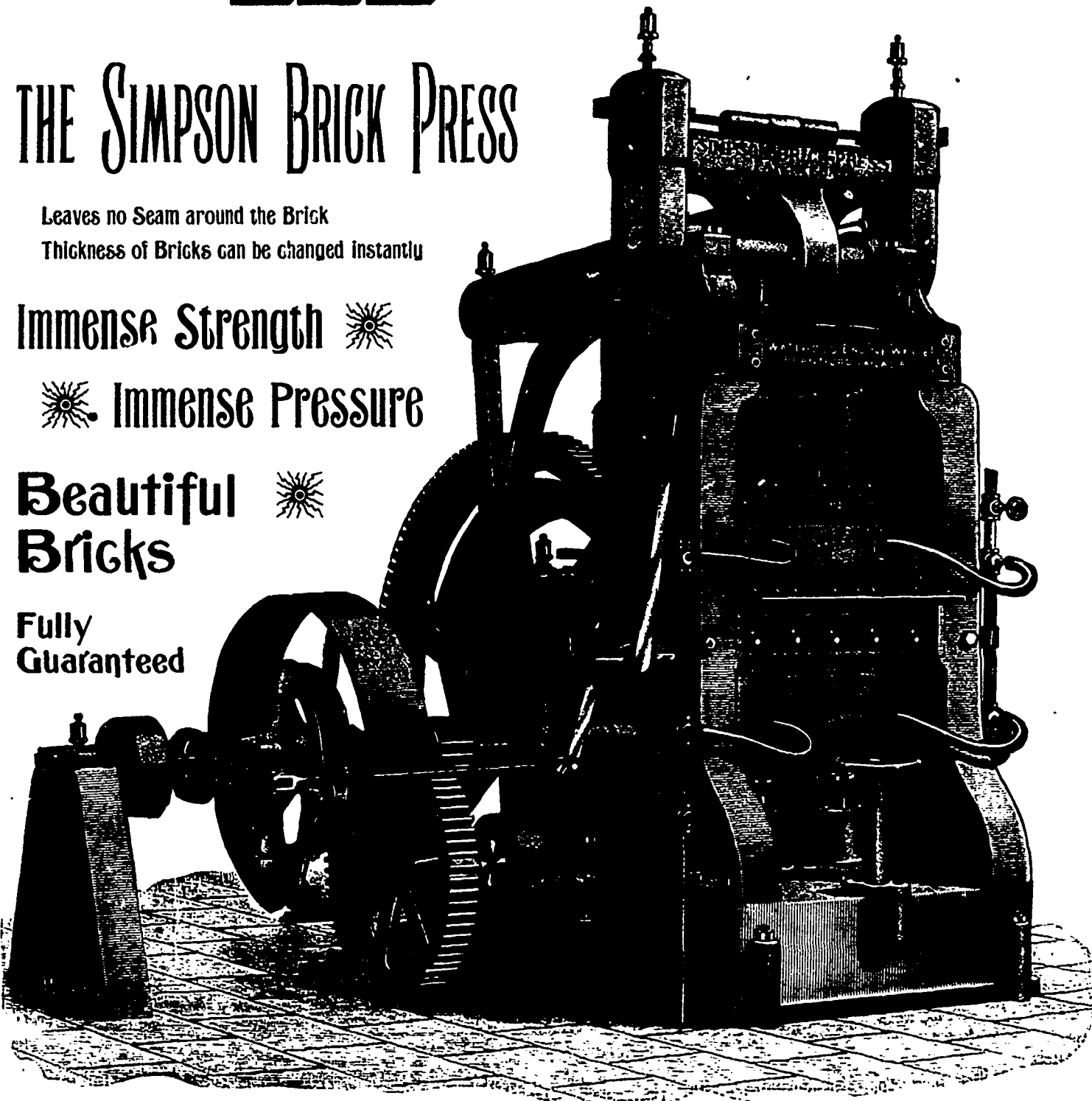
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BRANTFORD, CAN.

HUGH CAMERON, Clay Expert, Agent



E. R. Burns Saw Co. ▶

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E. R. BURNS SAW CO. TORONTO, ONT.



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PETER GERLACH & Co.

MANUFACTURERS OF



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THE CHAMPION STAVE, HEADING AND SHINGLE MACHINES
ICE TOOLS AND MILL SUPPLIES
CLEVELAND, OHIO

INSURANCE—FIRE AND MARINE. MILLS,
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EACH PLUG OF THE
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IS MARKED
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IN BRONZE LETTERS
None Other Genuine

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Canadian Rubber Company

OF MONTREAL

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Rubber Seamless
(BOSTON BELTING CO.)
Belting For the Dominion of Canada




Our Rubber Belting is
Unequalled in America



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... OF ...

“Seamless Tube Hose”

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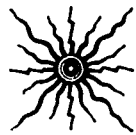
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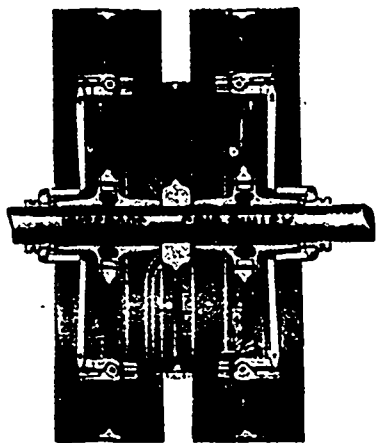
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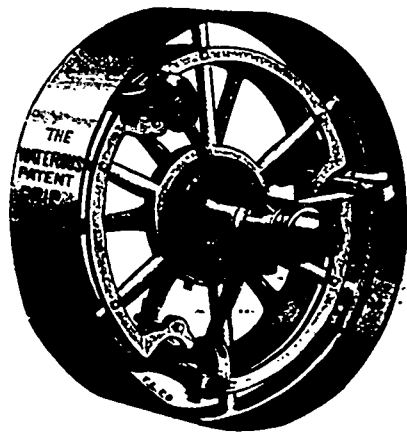
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Sectional View (2 pulleys on 1 grip ring).



A 3-GRIP PULLEY.

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

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

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Our Motto:

Grips always motionless when out of clutch.

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Doors, Sash, Blinds, Stairs

And all kinds of House-Finishing Materials

CEDAR OIL for Purging Boilers

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Successors to FLATT & BRADLEY

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Especially Good Facilities for Shipping

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All kinds of Building Material kept in stock

WE MAKE A
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Quotations furnished on application

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HYDRAULIC CEMENT

Particularly adapted for Dams, Smoke Stacks,

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Endorsed by
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OF EVERY DESCRIPTION FOR

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Absolutely Fire-proof Deadens Noise
Does not Crack on application of Heat or
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About as Cheap as Wood or Brick
Weight one-third that of Brick

TERRA COTTA FIRE-PROOFING

For use in Old and New Buildings

Gives Warmth in Winter; Coolness in Summer

TO LUMBERMEN, DEALERS
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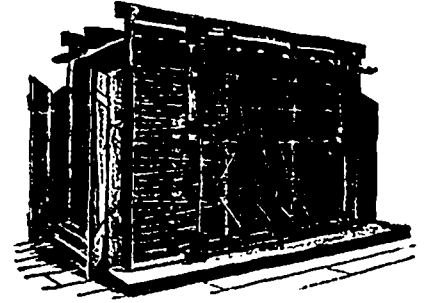
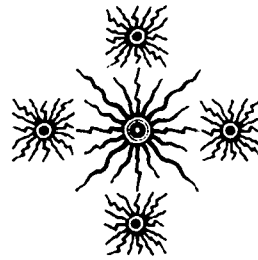
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MANUFACTURERS OF



THE ANDREWS

For all kinds of Lumber, Staves
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THE NOYES

Especially adapted for the Rapid Drying
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LUMBER DRY KILNS

THE ANDREWS LUMBER DRIER

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 Drier 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.

NO FAN

NO CHIMNEY

NO SPECIAL FIREMAN OR FUEL

NO RISK OF FIRE

NO ENGINE

NO SMOKE

NO EXPENSIVE BRICKWORK

NO CHECKING OR WARPING

NO CASE-HARDENING NO EQUAL

THE SEASONING OF LUMBER.

WE DO ARTIFICIAL SEASONING RAPIDLY, WITHOUT INJURY TO THE STOCK, AND WITH THE GREATEST ECONOMY OF FUEL AND LABOR. THE ANDREWS KILN IS THE PERFECT LUMBER DRIER.

ITS remarkable efficiency depends upon its peculiar mode of applying heat to, and eliminating moisture from, the air used in drying. We use no fan, engine or other device that requires constant attention, nor do we waste heat by a special chimney or ventilator, nor do we reduce temperature by introducing cold-water pipes or freezing mixtures for condensing purposes. We use a perforated pipe under the lumber, so arranged that, when required, the air at one end can be impregnated with additional moisture. This penetrates evenly the lumber above it, softening the surface, and is of very great advantage where case-hardened lumber has been put into the drier.

WRITE FOR QUOTATIONS AND STATE EXACTLY WHAT YOU WANT

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+++ CANADA LIFE BUILDING +++

TORONTO, ONT.

SAWMILL MEN!

You will all require more or less Pulleys this spring . . .



Do not waste time and money making mean-looking home-made Pulleys . . .

WE BUILD A SPECIALLY STRONG

WOOD SPLIT PULLEY

FOR SAWMILL USE

PRICES LOW AND DELIVERY QUICK

EVERY PULLEY FULLY GUARANTEED

SEND FOR PRICES

DODGE WOOD SPLIT PULLEY CO.

TORONTO, ONT.

Dauntless Shingle and Heading Machine

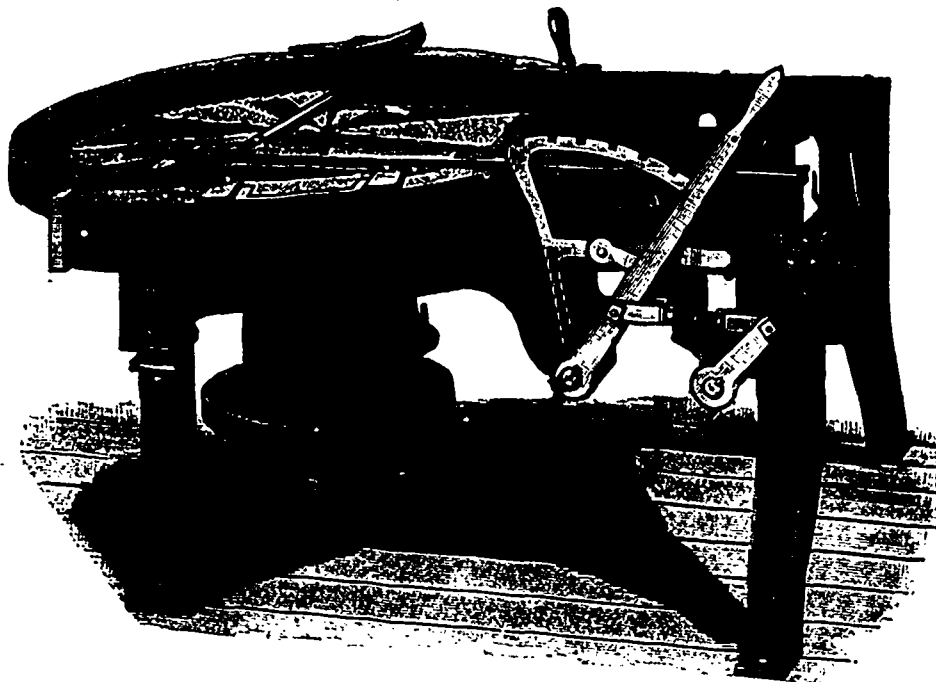
∴ WILL make more Shingles per day than any self-acting machine with vertical saw in existence, and more Shingles from the same quantity of timber.

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 —

Also Manufacturer of other kinds of . . .

- Shingle Jointers
- Both Self-acting and Hand-feed
- Shingle Machines
- Packing Boxes
- Bolters
- Drag Saw Machines
- Stationary and Portable Sawmills
- Double Edgers
- Single Edgers
- Slab Saw Rigs
- Bull Wheel Rigs
- Lath Machines
- Lath Bolters

..... In fact, a general line of Mill Machinery, with Pulleys, Shafting, etc.

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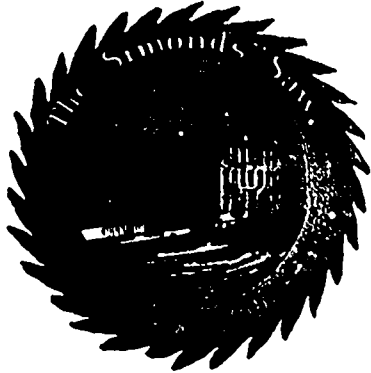
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CIRCULAR SAWS CROSS-CUT SAWS

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None Genuine without our Trade Mark



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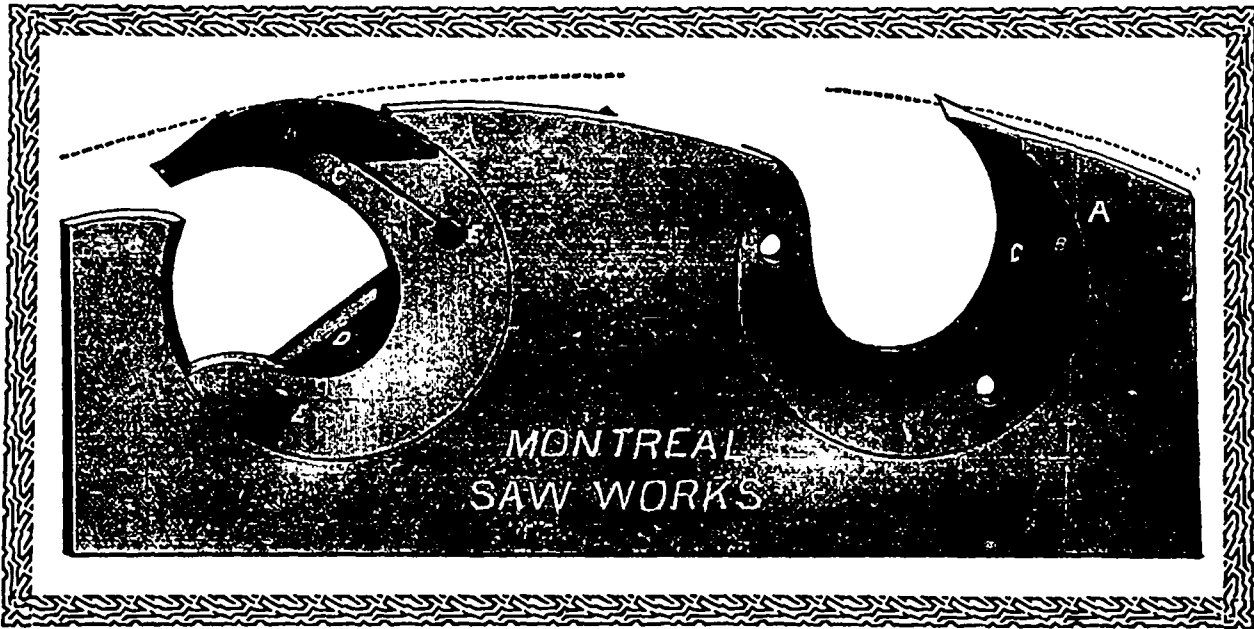
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The "BOSS" Shingle Machine

Manufactured by us is acknowledged by practical men to be

The Best
Machine
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